



2017-18



JHARKHAND ECONOMIC SURVEY

**PLANNING-CUM-FINANCE DEPARTMENT
CENTRE FOR FISCAL STUDIES
GOVERNMENT OF JHARKHAND**



Government of Jharkhand



**PLANNING-CUM-FINANCE DEPARTMENT
CENTRE FOR FISCAL STUDIES
GOVERNMENT OF JHARKHAND**



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| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|---|
| AABY | Aam Admi Bima Yojana |
| AAGR | Average Annual Growth Rate |
| AAI | Airports Authority of India |
| AAP | Annual Action Plan |
| AAY | Anatyodaya Anna Yojana |
| ACA | Additional Central Assistance |
| ACP | Annual Credit Plan |
| AD | Authorized Dealer |
| ADB | Asian Development Bank |
| ADI | Average Daily Intake |
| AGEGC | Agriculture sector excluding growing of crops |
| AHP | Affordable Housing in Partnership |
| AIADA | Aditayapur Industrial Area Development Authority |
| AIBP | Accelerate Irrigation Benefit Programme |
| AICTE | All India Council for Technical Education |
| AID | Alternative for India Development |
| AIDS | Acquired Immune Deficiency Syndrome |
| AIIMS | All India Institute of Medical Sciences |
| AISCET | All India Society for Electronics & Computer Technology |
| AISHE | All India Survey on Higher Education |
| AJJPY | Aadim JanJati Pension Yojna |
| AJSVN | Anusuchit Janjati Sahakarita Vikas Nigam |
| AKM | Aajeevika Krishi Mitra |
| ALIMCO | Artificial Limbs Manufacturing Corporation of India |
| AMRUT | Atal Mission for Rejuvenation and Urban Transformation |
| ANBC | Adjusted Net Bank Credit |
| ANC | Antenatal care |
| ANCDR | Annual New Case Detection Rate |
| ANM | Auxiliary Nurse Midwife |
| ANR | Aided Natural Regeneration |
| APL | Above Poverty Line |
| APMC | Agricultural Produce Market Committee |
| APS | Aajeevika Pashu Sakhi |
| APY | Atal Pension Yojana |
| ARSH | Adolescent Reproductive and Sexual Health |
| ARWSP | Accelerated Rural Water Supply Programme |
| ASDP | Aajeevika Skill Development Programme |
| ASER | Annual Status of Education Report |
| ASHA | Accredited Social Health Activist |
| ASI | Annual Survey of Industries |
| ASIDE | Assistance to States for Development of Export Infrastructure and Allied Activities |
| AT&C | Aggregate Technical and Commercial |

| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|---|
| ATDC | Apparel Training & Design Centre |
| ATS | Apprenticeship Training Scheme |
| AVM | Aajeevika Vanopaj Mitra |
| AWC | Anganwari Centre |
| AWH | Anganwadi Helper |
| AWW | Angawadi Workers |
| AYUSH | Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy |
| BSNL | Bharat Sanchar Nigam Limited |
| BAIF | Bharatiya Agro Industries Foundation |
| BBBP | Beti Bachao Beti Padhao |
| BCCL | Bharat Coking Coal Limited |
| BDS | Bachelor of Dental Surgery |
| BEMOC | Basic Emergency Obstetric Care Training |
| BIT | Birla Institute of Technology |
| BLF | Block Level Federation |
| BMB | Bharatiya Mahila Bank |
| BMI | Body Mass Index |
| BMMU | Block Mission Management Unit |
| BOT | Build Operate And Transfer |
| BPed. | Bachelors in Physical Education |
| BPL | Below Poverty Line |
| BPs | Boundary Pillars |
| BRGF | Backward Regions Grant Fund |
| BSSPY | Bal Shramik Shiksha Protsahan Yojana |
| BSUP | Basic Services to Urban Poor |
| BTS | Base Transceiver Services |
| CA | Controlled Atmosphere |
| CAB-AHS | Clinical, Anthropometric and Biochemical-Annual Health Survey |
| CAD | Computer Aided Design |
| CADWM | Command Area Development and Water Management |
| CAGR | Compound Annual Growth Rate |
| CAMPA | Compensatory Afforestation Fund Management and Planning Authority |
| CAPART | Council for Advancement of People's Action and Rural Technology |
| CAs | Certification Agencies |
| CASP | Community Aid & Sponsorship Programme |
| CBMS | Community Based Monitoring System |
| CBO | Community Based Organization |
| CBR | Crude Birth Rate |
| CC | Collection Centres |
| CCB | Central Cooperative Bank |
| CCDU | Communication and Capacity Development Unit |
| CCSAMMN | Climate change and Sustainable Agriculture: Monitoring, Modeling and Networking |

Acronyms and Abbreviations

| | |
|----------|---|
| CDLG | Capacity Development for Local Governance |
| CDR | Credit-Deposit Ratio |
| CEO | Chief Executive Officer |
| CFC | Common Facility Centres |
| CFT | Cluster Facilitation Teams |
| CGTMSE | Credit Guarantee Fund Trust for Micro and Small Enterprises |
| CGWB | Central Ground Water Board |
| CHC | Community Health Centres |
| CIDC | Construction Industry Development Council |
| CIF | Community Investment Fund |
| CIL | Coal India Limited |
| CLF | Cluster Level Federation |
| CMSA | Chief Minister's Social Assistance |
| CMSA | Community Managed Sustainable Agriculture |
| CoE | Centres of Excellence |
| COs | Community Organisers |
| CPIS | Comprehensive Project Investment Subsidy |
| CPL | Commercial Pilot License |
| CPSU | Central Public Sector Undertaking |
| CRF | Central Road Fund |
| CRISIL | Credit Rating Information Services of India Limited |
| CRP | Community Resource Person |
| CSC | Common Service Centres |
| CSO | Central Statistical Organisation |
| CSR | Corporate Social Responsibility |
| CSS | Centrally Sponsored Schemes |
| CTE | Colleges for Teacher Education |
| CTI | Central Training Institute |
| CTS | Craftsman Training Scheme |
| CUG | Closed User Group |
| CWC | Child Welfare Committee |
| CWSN | Children with Special Needs (CWSN) |
| DANIDA | Danish International Development Agency |
| DANWADEP | Danida's Watershed Development Programme |
| DAP | Di Ammonia Phosphate |
| DAY | Deen Dayal Antyodaya Yojna |
| DBT | Direct Benefits Transfer |
| DCBC | District Capacity Building Committee |
| DCCB | District Central Cooperative Banks |
| DCPS | District Child Protection Units |
| DDUGJY | Deen Dayal Upadhyaya Gram Jyoti Yojana |
| DDU-GKY | Deen Dayal Upadhyaya Grameen Kaushalya Yojana |

| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|---|
| DELP | Domestic Efficient Lighting Programme |
| DEO | District Education Officer |
| DES | Directorate of Economics and Statistics |
| DGFT | Directorate General of Foreign Trade |
| DGPS | Differential Global Positioning System |
| DIC | District Industries Centre |
| DIET | District Institutes of Education and Training |
| DIPP | Department of Industrial Policy and Promotion |
| DISE | District Information System for Education |
| DKVK | Divyayan Krishi Vigyan Kendra |
| DMMU | District Mission Management Unit |
| DMP | Disaster Management Plan |
| DMPA | Depot Medroxyprogesterone Acetate |
| DoIT | Department of Information Technology |
| DPAP | Drought Prone Areas Programme |
| DPR | Detail Project Report |
| DPT | Diphtheria, Pertussis, and Tetanus |
| DRDA | District Rural Development Agencies |
| DRDO | Defense Research Development Organization |
| DRI | Differential Rate of Interest |
| DRS | Debt Restructuring Scheme |
| DSD | Direct Store Delivery |
| DSS | Direct Subsidy Scheme |
| DSWWCD | Department of Social Welfare, Women and Child Development |
| DTR | Dynamic Thermal Rating |
| DVC | Damodar Valley Corporation |
| EAG | Empowered Action Group |
| EAP | Externally Aided Project |
| EBD | Educationally Backward Districts |
| ECCE | Early Childhood Care and Education |
| ECGC | Export Credit Guarantee Corporation |
| EDA | Export Development Assistance |
| EI & IS | Economically Important & Inter-State |
| EIA | Energy Information Administration |
| EMOC | Emergency Obstetric Care Training |
| EMRS | Eklavya Model Residential Schools |
| ENC | Essential New Born Care |
| EOC | Emergency Operation Centres |
| EOI | Expression of Interest |
| EPA | Entry Point Activity |
| EPF | Employee Provident Fund |
| ERM | Extension Renovation & Modernization |

Acronyms and Abbreviations

| | |
|--------|--|
| ERO | External Resource Organisations |
| ESI | Employees' State Insurance |
| EST&P | Employment through Skills Training & Placement |
| ESZ | Ecologically Sensitive Zones |
| FC | Fixed Capital |
| FCI | Food Corporation of India |
| FDA | Forest Development Agencies |
| FDI | Foreign Direct Investment |
| FFS | Farmers Field School |
| FIEO | Federation of Indian Export Organisations |
| FIRMS | Fire Information for Resource Management System |
| FLCC | Financial Literacy and Credit Counselling |
| FLCs | Financial Literacy Centers |
| FNHW | Food, Nutrition, Health and WASH |
| FPC | Flat Plate Collector |
| FPIS | Family Planning Indemnity Scheme |
| FPLMIS | Family Planning Logistic Management Information System |
| FRBM | Fiscal Responsibility and Budget Management |
| FRH | Forest Rest House |
| FSI | Forest Survey of India |
| FTK | Field Test Kits |
| FTO | Fund Transfer Order |
| FY | Financial Year |
| GATS | Global Adult Tobacco Survey |
| GCF | Gross Capital Formation |
| GDI | Gender Development Index |
| GDP | Gross Domestic Product |
| GER | Gross Enrolment Ratio |
| GHG | Green House Gases |
| GIS | Geographical Information System |
| GOI | Government of India |
| GOJ | Government of Jharkhand |
| GPF | General Provident Fund |
| GPI | Gender Parity Index |
| GPS | Global Positioning System |
| GSDP | Gross State Domestic Product |
| GSS | Grid Sub-Station |
| GSVA | Gross State Value Added |
| GVA | Gross Value Added |
| HaM | Hectare-Meter |
| HAPIS | Horticulture Area Production Info System |
| HCM | Hot Cooked Meal |

| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|--|
| HDI | Human Development Index |
| HEC | Heavy Engineering Corporation |
| HIS | Hydrologic Information System |
| HIV | Human Immunodeficiency Virus |
| HLTC | High Level Technical Committee |
| HPD | High Priority Districts |
| HRD | Human Resource Department |
| HTLS | High Temperature Low Sag |
| HUNAR | Hallmarking of Unrecognized Novice and Amature Resources |
| HVA | High Value Agriculture |
| HYV | High Yield Varieties |
| IAP | Integrated Action Plan |
| IASE | Institute for Advance Studies in Education |
| IAY | Indira Awas Yojna |
| ICDS | Integrated Child Development Services |
| ICI | Investment Company Institute |
| ICPS | Integrated Child Protection Scheme |
| ICT | Information & Communication Technology |
| IDP | Institute Development Plan |
| IDTR | Indo Danish Tool Room |
| IEC | Information, Education and Communication |
| IEDSS | Inclusive Education for Disabled at Secondary Stage |
| IFA | Iron Folic Acid |
| IFAD | International Fund for Agricultural Development |
| IGA | Income Generation Activities |
| IGMSY | Indira Gandhi Matritva Sahyog Yojna |
| IGNDPS | Indira Gandhi National Disability Pension Scheme |
| IGNOAPS | Indira Gandhi National Old Age Pension Scheme |
| IGWDP | Indo German Watershed Development Programme |
| IHHL | Individual Household Latrines |
| IHSDP | Integrated Housing and Slum Development Programme |
| IINRG | Indian Institute of Natural Resins and Gums |
| IIP | Index of Industrial Production |
| IISc. | Indian Institute of Science |
| IIT-ISM | IIT- Indian School of Mines |
| IITF | India International Trade Fair |
| IKSL | IFFCO Kisan Sanchar Limited |
| IL&FS | Infrastructure Leasing & Finance Company |
| IMD | Indian Metrological Department |
| IMIS | Institute of Management & Information Science |
| IMNCI | Integrated Management of Neonatal Childhood Illness |
| IMR | Infant Mortality rate |

Acronyms and Abbreviations

| | |
|------------|---|
| INM | Integrated Nutrients Management |
| IPDS | Integrated Power Development Scheme |
| IPM | Integrated Pest Management |
| IPPP | Intensive Participatory Planning Process |
| IQF | Individual Quick Frozen |
| IRCTC | Indian Railway Catering and Tourism Corporation |
| IRO | Internal Resource Organization |
| ISBT | Inter-State Bus Terminus |
| ISFR | India State of Forest Survey |
| ISI | Information Sciences Institute |
| ISRO | Indian Space Research Organisation |
| IT | Information Technology |
| ITDA | Integrated Tribal Development Authorities |
| ITDP | Integrated Tribal Development Project |
| ITES | Information technology enabled services |
| ITI | Industrial Training Institute |
| ITI | Indian Institute of Technology |
| ITPO | India Trade Promotion Organisation |
| IUCD | Intra Uterine Contraceptive Device |
| IUD | Intrauterine device |
| IWMP | Integrated Watershed Management Programme |
| IYCF | Infant and Young Child Feeding |
| JMTTC | Jubilee Memorial Technical Training Centre |
| JAC | Jharkhand Academic Council |
| JAP-IT | Jharkhand Agency for Promotion of Information Technology |
| JARDCL | Jharkhand Accelerated Road Development Co. Ltd |
| JARDP | Jharkhand Accelerated Road Development Plan |
| JBAV | Jharkhand Balika Awasiya Vidyalaya |
| JBVNL | Jharkhand Bijli Vitran Nigam Limited |
| JCERT | Jharkhand Council for Educational Research and Training |
| JCL | Juvenile in conflict with law |
| JCST | Jharkhand Council on Science & Technology |
| JEPC | Jharkhand Education Project Council |
| JFM | Joint Forest Management |
| JFMC | Joint Forest Management Committee |
| JHARNET | Jharkhand State Information and Communication Network |
| JHASCOFISH | Jharkhand State Co-Operative Fisheries Federation Ltd. |
| JICA | Japan Intensive Cooperation Agency |
| JIIDCO | Jharkhand Industrial Infrastructure Development Corporation |
| JIMMS | Jharkhand Integrated Mines & Minerals Management System |
| JINFRA | Jharkhand Infrastructure Development Corporation |
| JIP | Jharkhand Industrial Policy |

| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|---|
| JJB | Juvenile Justice Board |
| JLG | Joint Liability Groups |
| JNNURM | Jawaharlal Nehru National Urban Renewal Mission |
| JOHAR | Jharkhand Opportunities for Harnessing Rural Growth Project |
| JREDA | Jharkhand Renewable Energy Development Agency |
| JRHMS | Jharkhand Rural Health Mission Society |
| JSAC | Jharkhand Space Application Centre |
| JSCB | Jharkhand State Co-operative Bank |
| JSCPS | Jharkhand State Child Protection Society |
| JSDMS | Jharkhand Skills Development Mission Society |
| JSFC | Jharkhand State Food and Civil Supplies Corporation |
| JSFDC | Jharkhand State Forest Development Corporation |
| JSLPS | Jharkhand State Livelihood Promotion Society |
| JSRP | Jharkhand State Road Project |
| JSSPS | Jharkhand State Sports Promotion Society |
| JSTDI | Jharkhand Silk Textile Development Institute |
| JSWM | Jharkhand State Watershed Mission |
| JSWSH | Jharkhand State Water and Sanitation Mission |
| JTDC | Jharkhand Tourism Development Corporation |
| JTDEP | Jharkhand Tribal Development and Empowerment Project |
| JTDP | Jharkhand Tribal Development Program |
| JTDS | Jharkhand Tribal Development Society |
| JTELP | Jharkhand Tribal Empowerment & Livelihood Programme |
| JTET | Jharkhand Teachers Eligibility Test |
| JUIDCL | Jharkhand Urban Infrastructure Development Company Limited |
| JUSNL | Jharkhand Urja Sancharan Nigam Limited |
| JUUNL | Jharkhand Urja Utpadan Nigam Ltd |
| JUVNL | Jharkhand Urja Vikas Nigam Ltd |
| JWDS | Jharkhand Woman Development Society |
| KCC | Kisan Credit Card |
| KGBV | Kasturba Gandhi Balika Vidyalaya |
| KSY | Kishori Shakti Yojana |
| KVIB | Khadi and Village Industries Board |
| KVIC | Khadi and Village Industries Commission |
| LAN | Local Area Network |
| LDMs | Lead District Managers |
| LED | Light Emitting Diode |
| LFPR | Labour Force Participation Rate |
| LPCD | Litres Per Capita Per Day |
| LSAS | Life Saving Anesthetic Skill Re orientation |
| LWE | Left Wing Extremism |
| MBBS | Bachelor of Medicine, Bachelor of Surgery |

Acronyms and Abbreviations

| | |
|---------|--|
| MPP | Milk Pooling Points |
| MCD | Minority Concentration Districts |
| MCS | Model cluster Schools |
| MCW | Maternity and Child Welfare Centres |
| MDA | Market Development Assistance |
| MDF | Moderately Dense Forest |
| MDG | Millennium Development Goals |
| MDI | Micro Drip Irrigation |
| MDM | Mid Day Meal |
| MDR | Major District Roads |
| MDS | Master of Dental Surgery |
| MEC | Microenterprise consultant |
| MECON | Metallurgical & Engineering Consultants Limited |
| MECs | Micro Enterprise Consultants |
| MESO | Micro Economic Social Organisation |
| MFI | Micro Finance Institution |
| MFP | Minor Forest Produces |
| MGNREGA | Mahatma Gandhi National Rural Employment Guarantee Act |
| MHRD | Ministry of Human Resource Development |
| MHUPA | Ministry of Urban Housing and Poverty Alleviation |
| MIS | Management Information Systems |
| MKSP | Mahila Kisan Sashaktikaran Pariyojana |
| MKY | Mukhyamantri Kanyadan Yojna |
| MLLY | Mukhyamantri Ladli Laxmi Yojna |
| MMJSSA | Mukhya Mantri Janani Shishu Swasthya Abhiyan |
| MMP | Mission Mode Projects |
| MMR | Maternal Mortality Ratio |
| MMS | Mandal Mahila Samakhya |
| MMU | Mobile Medical Unit |
| MNRE | Ministry of Natural and Renewable Energy |
| MoA | Memorandum of Agreement |
| MODIS | Moderate Resolution Imaging Spectroradiometer |
| MOFPI | Ministry of Food Processing Industries |
| MoPR | Ministry of Panchayati Raj |
| MoRD | Ministry of Rural Development |
| MOSPI | Ministry of Statistics and Programme Implementation |
| MOU | Memorandum of Understanding |
| MPCE | Monthly Per Capita Consumption Expenditure |
| MPCY | Medhavi Putra/Putri Chatravriti Yojana |
| MP Ed. | Masters in Physical Education |
| MSDP | Multi Sector Development Programme |
| MSE | Micro and Small Enterprises |

| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|--|
| MSME | Micro Small and Medium Enterprises |
| M-STrIPES | Monitoring System for Tiger-Intensive Protection and Ecological Status |
| MT | Million Tonne |
| MTC | Malnutrition Treatment Centres |
| MTP | Medical Termination of Pregnancy |
| MUDRA | Micro Units Development and Refinance Agency |
| MVY | Mukhyamantri Vidyalakshmi Yojana |
| MWDS | Ministry of Drinking Water and Sanitation |
| MYRADA | Mysore Resettlement and Development Agency |
| NABARD | National Bank for Agriculture and Rural Development |
| NABL | National Accreditation Board for Testing and Calibration Laboratories |
| NADMS | National Agriculture Drought Monitoring System |
| NAEB | National Afforestation and Eco-Development Board |
| NAPCC | National Action Plan for Climate Change |
| NASA | National Aeronautics and Space Administration |
| NBA | National Board of Accreditation |
| NBCR | National Bureau of Crime Records |
| NBFC | Non-Banking Financial Companies |
| NCDs | Non-Communicable Diseases |
| NCERT | National Council of Educational Research and Training |
| NCLP | National Child Labour Project |
| NCML | National Collateral Management Service |
| NCS | National Career Service |
| NCVT | National Council for Vocational Training |
| NDML | National Database Management Ltd |
| NDRF | National Disaster Response Force |
| NeGP | National e-Governance Plan |
| NER | Net Enrolment Ratio |
| NESCL | NTPC Electric Supply Company |
| NFBS | National Family Benefit Scheme |
| NFHS | National Family Health Survey |
| NFSA | National Food Security Act |
| NFSM | National Food Security Mission |
| NGO | Non-Government Organisations |
| NHAI | National Highways Authority of India |
| NHM | National Health Mission |
| NIA | Net Irrigated Area |
| NIRD | National Institute of Rural Development |
| NIT | National Institute of Technology |
| NMFP | National Mission on Food Processing |
| NMMU | Nelson Mandela Metropolitan University |
| NMP | National Manufacturing Policy |

Acronyms and Abbreviations

| | |
|--------|---|
| NMR | Neonatal Mortality Rate |
| NOFN | National Optical Fibre Network |
| NPA | Non Performing Assets |
| NPA | National Park Authority |
| NPCA | National Plan for Conservation of Aquatic Eco-systems |
| NPEGEL | National Program for Education of Girls at Elementary Level |
| NPS | Non Priority Sector |
| NRDP | National Drinking Water Programme |
| NRDWP | National Rural Drinking Water Programme |
| NREP | National Rural Employment Programme |
| NRHM | National Rural Health Mission |
| NRLM | National Rural Livelihood Mission |
| NRLP | National Rural Livelihoods Project |
| NRM | National Resource Management |
| NRO | National Resource Organizations |
| NRSC | National Remote Sensing Centre |
| NSA | Net Sown Area |
| NSDP | Net State Domestic Product |
| NSQF | National Skills Qualifications Framework |
| NSS | National Sample Survey |
| NSSF | National Small Saving Fund |
| NSSK | Navjat Shishu Suraksha Karyakaram |
| NSSO | National Sample Survey Organization |
| NSU | National Sports University |
| NSV | No-Scalpel Vasectomy |
| NTFP | Non Timber Forest Produce |
| NTPC | National Thermal Power Corporation |
| NTSA | National Technical Support Agency |
| NUHM | National Urban Health Mission |
| NULM | National Urban Livelihoods Mission |
| NWDPRA | National Watershed Development Programme for Rain fed Areas |
| OBC | Other Backward Classes |
| ODF | Open Defecation Free |
| OFC | Optical Fibre Cable |
| OSP | Office of Strategy & Planning |
| PAB | Programme Approval Board |
| PACS | Primary Agricultural Credit Societies |
| PCARDB | Primary Cooperative Agriculture and Rural Development Banks |
| PCC | Plain Cement Concrete |
| PCCF | Principal Chief Conservator of Forests |
| PCLDB | Primary Cooperative Land Development Banks |
| PDO | Public Data Office |

| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|---|
| PDS | Public Distribution System |
| PEAIS | Panchayat Empowerment and Accountability Incentive Scheme |
| PESA | Panchayat Extension to Scheduled Areas |
| PFC | Power Finance Corporation |
| PFCCL | Power Finance Corporation Consulting Limited |
| PGCIL | Power Grid Cooperation of India Limited |
| PHC | Primary Health Centre |
| PHED | Public Health and Engineering Department |
| PHH | Priority Households |
| PIA | Program Implementing agencies |
| PIB | Press Information Bureau |
| PIM | Participatory Irrigation Management |
| PIU | Project Implementation Unit |
| PLF | Plant Load Factor |
| PMAY | Pradhan Mantri Awas Yojana |
| PMAY-G | Pradhan Mantri Awas Yojna- Gramin |
| PMEGP | Prime Minister Employment Generation Programme |
| PMEYSA | Panchayat Mahila Evam Yuva Shakti Abhiyan |
| PMGSY | Pradhan Mantri Gram Sadak Yojna |
| PMJDY | Pradhan Mantri Jan-Dhan Yojana |
| PMJJBY | Pradhan Mantri Jeevan Jyoti Yojana |
| PMMY | Pradhan Mantri Mudra Yojana |
| PMRY | Prime Minister Rozgar Yogna |
| PMSBY | Pradhan Mantri Suraksha Beema Yojana |
| PMU | Project Management Unit |
| POERI | Power over Economic Resources |
| POP | Progesterone-Only Pill |
| PPC | Primary Processing Centres |
| PPIUCD | Post Partum Intra Uterine Contraceptive Device |
| PPP | Public Private Partnership |
| PRADAN | Professional Assistance for Development Action |
| PRC | Performance Review Committee |
| PRI | Panchayati Raj Institution |
| PSA | Priority Sector Advances |
| PSB | Phosphate Solubilizing Bacteria |
| PSPTG | Pension Scheme for Primitive Tribal Group |
| PSU | Public Sector Undertaking |
| PTG | Primitive Tribal Groups |
| PTI | Panchayat Training Institution |
| PTP | Primitive Tribe Population |
| PTR | Pupil-Teacher Ratio |
| PTR | Palamu Tiger Reserve |

Acronyms and Abbreviations

| | |
|---------|--|
| PTTC | Primary Teachers Training Colleges |
| PVTG | Particularly Vulnerable Tribal Groups |
| PVUNL | Patratu Vidyut Utpadan Nigam Limited |
| PWCS | Primary Weavers Cooperative Societies |
| PWD | Public Works Department |
| PWD | Persons with Disabilities |
| PWSS | Piped Water Supply Scheme |
| PYKKA | Panchayat Yuva Krida Aur Khel Abhiyan |
| QCD | Quality Control Directorate |
| RAD | Rainfed Area Development |
| RAPDRP | Restructured Accelerated Power Development & Reforms Programme |
| RAY | Rajiv Awas Yojana |
| RBI | Reserve Bank Of India |
| RCC | Reinforced Cement Concrete |
| RCD | Road Construction Department |
| RCH | Reproductive and Child Health |
| RDD | Rural Development Department |
| RDDE | Research, Development, Diffusion, and Evaluation |
| RDF | Random Decision Forest |
| REC | Rural Electrification Corporation |
| REC | Renewable Energy Corporation |
| REGP | Rural Employment Generation Programme |
| RFA | Recorded Forest Area |
| RFS | Rural Franchisee Schemes |
| RGGVY | Rajiv Gandhi Gramin Vidyutikaran Yojna |
| RGPSA | Rajiv Gandhi Panchayat Shasaktikaran Abhiyan |
| RGSEAG | Rajiv Gandhi Scheme for Empowerment of Adolescent Girls |
| RGSY | Rashtriya Gram Swaraj Yojana |
| RIADA | Ranchi Industrial Area Development Authority |
| RIDF | Rural Infrastructure Development Fund |
| RIMC | Rashtriya Indian Military College |
| RKVY | Rashtriya Krishi Vikas Yojna |
| RMC | Ranchi Municipal Corporation |
| RMNCH+A | Reproductive Maternal-Neonatal-Child and Adolescent Health |
| RMSA | Rashtriya Madhyamik Shiksha Abhiyan |
| ROB | Railway Over Bridge |
| RoGP | Rate of Growth of Population |
| RoPCI | Rate of Growth of PCI |
| RPCD | Rural Planning and Credit Department |
| RPWSS | Rural Piped Water Service Scheme |
| RPWSS | Reliance Power Wash Sales Services |
| RRB | Regional Rural Banks |

| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|--|
| RSETI | Rural Self Employment Training Institute |
| RTE | Right to Education |
| RUDSETI | Rural Development & Self Employment Training Institute |
| RUSA | Rashtriya Uchchatar Shiksha Abhiyaan |
| RVNL | Rail Vikas Nigam Limited |
| RVSPY | Rajya Vidhwa Samman Pension Yojna |
| SAF | South Asian Federation |
| SAGY | Sansad Adarsh Gram Yojana |
| SAIL | Steel Authority of India Limited |
| SAJHA | Sports Authority of Jharkhand |
| SAM | Severe and Acute Malnourished Children |
| SAPCC | State Action Plan on Climate Change |
| SARA | State Adoption Resource Agencies |
| SBA | Skilled Birth Attendant |
| SBLP | SHG Bank-Linkage Program |
| SBM | Swachh Bharat Mission |
| SCA | Special Central Assistance |
| SCARDB | State Cooperative Agriculture and Rural Development Bank |
| SCB | State Cooperative Banks |
| SCI | Systematic Crop Intensification |
| SCLDB | State Cooperative Land Development Bank |
| SCPS | Jharkhand State Child Protection Societies |
| SCSP | Scheduled Caste Sub Plan |
| SCSP | Special Component Sub Plan |
| SDC | SAARC Documentation Centre |
| SDG | Sustainable Development Goals |
| SDH | Synchronous Digital Hierarchy |
| SDIS | Skill Development Initiative Scheme |
| SDMA | State Disaster Management Authority |
| SDP | School Development Plan |
| SDRF | State Disaster Response Fund |
| SECC | Socio-Economic caste Census |
| SEP | Self-Employment Programme |
| SEZ | Special Economic Zones |
| SFD | State Forest Department |
| SGDP | State Gross Domestic Product |
| SGSY | Swaranjayanti Gram Swarojgar Yojna |
| SHAJ | State Highway Authority of Jharkhand |
| SHG | Self Help Group (Sakhi Mandal) |
| SHM | Soil Health Management |
| SHPI | Self-help Promoting Institution |
| SICDP | Small Industries Cluster Development Programme |

| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|--|
| SIDBI | Small Industries Development Bank of India |
| SITP | Scheme For Integrated Textile Parks |
| SJSRY | Swarna Jayanti Shahari Rozgar Yojana |
| SKIPA | Sri Krishna Institute of Public Administration |
| SKO | Subsidized Kerosene Oil |
| SLBC | State Level Bankers Committee |
| SLQAC | State Level Quality Assurance Cell |
| SLWM | Solid and Liquid Waste Management |
| SM&ID | Social Mobilisation and Institution Development |
| SMART | Simple Methodical Accountable Responsive Transparent |
| SMC | Soil & Moisture Conservation |
| SMMU | State Mission Management Unit |
| SNP | Supplementary Nutrition Programme |
| SPIADA | Santhal Pargana Industrial Area Development |
| SRCW | State Resource Centre for Women |
| SRI | Systematic Rice Intensification |
| SRS | Sample Registration System |
| SSA | Sarva Siksha Abhiyan |
| SSC | Sector Skill Council |
| SSDG | State Service Delivery Gateway |
| SSSPS | State Social Security Pension Scheme |
| STCs | Special Training Centres |
| STEP | Support to Training and employment Programme for Women |
| STEP-UP | Skill Training for Employment Promotion amongst Urban Poor |
| STP | Skill Training Providers |
| STPI | Software Technology Parks of India |
| SUH | Scheme of Shelters for Urban Homeless |
| SUI | Stand-Up India |
| SUSV | Support to Urban Street Vendors |
| SVNSPY | Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana |
| SWAN | State Wide Area Network |
| SWI | Systematic Wheat Intensification |
| SWPS | State Widow Pension Scheme |
| T&D | Transmission and Distribution |
| TCDC | Tribal Co-operative Development Corporation |
| TFR | Total Fertility Rate |
| THR | Take Home Ration |
| THV | Targeting the Hardcore Poor Scheme |
| TPDS | Targeted Public Distribution System |
| TSP | Tribal Sub Plan |
| UCDN | Urban Community Development Network |
| UD&HD | Urban Development & Housing Department |

| <i>Acronyms and Abbreviations</i> | |
|-----------------------------------|--|
| UDAY | Ujjwal Discom Assurance Yojna |
| U-DISE | Unified District Information System for Education |
| UDR | United Data Repository |
| UEE | Universal Elementary Education |
| UID | Unique Identity Number |
| ULB | Urban Local Body |
| UNDP | United Nations Development Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |
| UNICEF | United Nations International Children's Emergency Fund |
| UNIDO | United Nations Industrial Development Organization |
| UPSS | Usual Principal and Subsidiary Status |
| USEP | Urban Self-Employment Programme |
| UWSP | Urban Women Self-Help Programme |
| VAT | Value Added Tax |
| VEDC | Village Environment Development Committee |
| VFMP | Village Forest Management & Protection Committee |
| VHND | Village Health Nutrition Day |
| VHSNC | Village Health Sanitation & Nutrition Committee |
| VLE | Village Level Entrepreneurs |
| VO | Village Organization |
| VRF | Vulnerability Reduction Fund |
| VTIP | Vocational Training Improvement Project |
| VWSC | Village Water and Sanitation Committee |
| WAMIS | Work and Management Information Systems |
| WAMS | Works and Accounts Management Information System |
| WASH | Water, Sanitation and Hygiene |
| WHO | World Health Organization |
| WII | Wildlife Institute of India |
| WLL | Wireless in Local Loop |
| WPR | Worker Population Ratio |
| WSA | Water Spread Area |
| WUA | Formation and involvement of Water User Association |
| XISS | Xavier Institute of Social Service |

MACRO-ECONOMIC OVERVIEW



The GSDP at constant prices of Jharkhand is estimated to have grown by 6.7 per cent and the GSVA at basic prices by 7.4 percent in this financial year (2017-18). The per capita income at constant prices has grown by 5.2 per cent and at current prices by 8.7 per cent this year in comparison to last year. If the economy maintains its pace of growth, the per capita income, which this year (2017-18) is estimated to be about 70 thousand rupees at current prices will double in about eight and half years time.

In most of the indicators of development, the pace of progress in Jharkhand has been more than the country on the whole. As a result, the developmental gaps between the state and the national average have narrowed down.

Jharkhand's GSDP, GSVA and Per Capita Income

, at constant prices, which were Rs. 150918 crore, Rs. 139130 crore and Rs. 41254, respectively, in the year 2011-12, the base year of new series of the data for income and related aggregates, are estimated (Advanced Estimate) to have grown to become equal to Rs. 212720 crore, Rs. 192735 crore and Rs. 54201, respectively, in the year 2016-17 – the GSDP and GSVA, thus, are estimated to have grown by about 40 per cent and per capita income by about 31 per cent in the last six years. They are projected to be equal to Rs. 227066 crore, Rs. 207080 crore and Rs. 57038 in the current financial year 2017-18. The growth rate of the economy, thus, is estimated to be 6.7 per cent and the per capita income is estimated to have grown by 5.2 per cent in the current financial year (2017-18).

Table 1.1: GSVA, GSDP, NSDP and Per Capita Income at current and constant prices

| Year | GSVA in Rs. Crore | | GSDP in Rs. Crore | | NSDP in Rs. Crore | | Per capita NSDP in Rs. | |
|---------------|-------------------|----------------|-------------------|----------------|-------------------|----------------|------------------------|----------------|
| | Constant prices | Current prices | Constant prices | Current prices | Constant prices | Current prices | Constant prices | Current prices |
| 2011-12 | 139130 | 139130 | 150918 | 150918 | 137383 | 137383 | 41254 | 41254 |
| 2016-17 (A) | 192735 | 230921 | 212720 | 253536 | 195778 | 234147 | 54201 | 64823 |
| 2017-18 (Pr.) | 207080 | 256836 | 227066 | 279451 | 209396 | 258701 | 57038 | 70468 |
| Growth rate | 7.4 | 11.2 | 6.7 | 10.2 | 7.0 | 10.5 | 5.2 | 8.7 |

Source: DES, Government of Jharkhand. (A- Advanced Estimate, Pr. -Projection)

Box 1.1: When will the per capita income of state double?

The per capita income of state has been estimated to be about Rs. 57 thousand rupees at constant prices and Rs. 70 thousand at current prices in the current financial year 2017-18. It has recorded an increase of about 38 per cent and 70 percent, respectively, since 2011-12.

The per capita income at constant prices, this year, has grown at an annual rate of 5.2 per cent. Government's efforts towards stabilization and expansion of production raise the hope that the per capita income will increase by not less than 6.7 per cent in future. Even if the state economy grows at this rate, the per capita income of the state will double in another 13 years, otherwise, much earlier.

The per capita income at current prices, this year, has grown at an annual rate of 8.7 percent. At this rate the per capita income will double in about eight and half years.

A Decomposition of Jharkhand's Growth Story

Sectoral Variations in Growth Rate: The growth in Jharkhand has not been uniform across its sectors. While the tertiary sector recorded a compound annual growth rate of 9.3 per cent in last six years from 2011-12 to 2016-17, the performance of other sectors remained below the average. The primary

sector could only achieve a compound annual rate of 4.6 per cent and the secondary sector of 5.3 per cent.

Most of the constituents of the tertiary sector have performed extremely well – achieving a double-digit annual growth in this period. Air transport has recorded a compound annual growth rate of more than 40 per cent, and communication and services related to broadcasting of about 25 per cent.

Table 1.2: Sectoral Growth rate on Y-to-Y and CAGR between 2011-12 and 2015-16

| S. No. | Year/ Sectors and sub-sectors | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | CAGR |
|-------------|--|---------|---------|---------|------------|------------|------|
| 1. | Agri., Forestry & Fishing | 5.9 | -1.8 | 30.7 | -25.8 | 11.4 | 2.3 |
| 1.1 | Crop | 11.6 | -4.5 | 5.4 | -19.1 | 14.2 | 0.7 |
| 1.2 | Livestock | -6.7 | 3.5 | 3.0 | 2.9 | -3.8 | -0.3 |
| 1.3 | Forestry & logging | 1.2 | 0.9 | 169.7 | -52.2 | 12.9 | 8.3 |
| 1.4 | Fishing | 5.4 | 8.5 | 1.5 | 8.9 | 58.1 | 14.9 |
| 2. | Mining & quarrying | 6.8 | -0.6 | 17.3 | 0.2 | 15.1 | 7.5 |
| I. | Primary (1+2) | 6.3 | -1.3 | 25.0 | -15.4 | 13.2 | 4.6 |
| 3. | Manufacturing | 19.8 | -7.2 | 9.4 | 6.9 | 6.8 | 6.8 |
| 4. | Electricity.gas & Water supply | 18.7 | 1.6 | -6.9 | -8.7 | 7.7 | 2.0 |
| 5. | Construction | -6.6 | 10.4 | 0.4 | 5.3 | 3.6 | 2.5 |
| II. | Secondary (3+4+5) | 11.7 | -2.2 | 5.9 | 5.7 | 6.0 | 5.3 |
| III. | Industry (2+II) | 10.4 | -1.8 | 8.7 | 4.2 | 8.4 | 5.9 |
| 6. | Trade, repair, hotels & restaurants | 11.7 | 8.8 | 10.6 | 29.4 | 14.4 | 14.8 |
| 6.1 | Trade & repair services | 11.1 | 9.6 | 9.8 | 31.0 | 14.5 | 14.9 |
| 6.2 | Hotels & restaurants | 19.5 | -0.6 | 21.3 | 10.6 | 12.3 | 12.3 |
| 7. | Transport, Storage & Communication | 10.3 | 9.7 | 9.4 | 10.4 | 27.1 | 13.2 |
| 7.1 | Railways | 15.9 | 8.5 | 12.5 | 2.5 | 18.3 | 11.4 |
| 7.2 | Road transport | 7.1 | 9.1 | 4.3 | 11.4 | 7.5 | 7.9 |
| 7.4 | Air transport | -6.4 | 75.6 | 49.3 | 72.2 | 43.3 | 43.3 |
| 7.5 | Services incidental to transport | 13.9 | -27.3 | 23.6 | -17.2 | -4.1 | -4.1 |
| 7.6 | Storage | -3.9 | -10.0 | -22.0 | 2.7 | -9.0 | -8.8 |
| 7.7 | Communication & services related to broadcasting | 8.8 | 16.8 | 14.4 | 21.8 | 75.0 | 25.4 |
| 8. | Financial services | 9.4 | 2.9 | 5.7 | 15.4 | 5.2 | 7.7 |
| 9. | Real estate, ownership of dwelling & professional services | 8.0 | 5.0 | 12.6 | 11.8 | -18.5 | 3.1 |
| 10. | Public administration | -12.5 | -6.8 | 17.0 | 14.5 | 5.1 | 2.8 |
| 11. | Other services | 11.9 | 9.3 | 6.9 | 13.8 | 13.3 | 11.0 |
| IV. | Tertiary (6+7+8+9+10+11) | 6.1 | 5.4 | 10.7 | 16.6 | 7.9 | 9.3 |

Source: Calculated from the data of GSDP and related aggregates of DES, GoJ.

Within the primary sector, only ‘fishing’, ‘forestry and logging’, and ‘mining and quarrying’ could achieve satisfactory growth of about 15 per cent, 8 per cent and 7.5 per cent, respectively. The output of livestock has remained almost stagnant and that of the crop has shown a very slow and unsteady growth. The value of the output of forestry and logging has shown extreme fluctuations in the last five years. Its growth rate, therefore, has fluctuated between 169.7 per cent and (-) 52.2 per cent. This has happened because the sale of the products of this sector was withheld in some of the years while the backlogs were disposed of in some other years. Thus, on the whole, this sector has recorded an average annual growth (CAGR) of 8.3 per cent.

The mining and quarrying have also shown a high

year-to-year fluctuation in its output. Its growth rate has fluctuated between 17.3 per cent to (-) 0.6 per cent. On an average, this sector achieved an annual growth of 7.5 per cent.

Within the secondary sector, the performance of manufacturing has mostly remained satisfactory. Except for the year 2012-13, when its production jumped by 20 per cent in comparison to last year and 2013-14 when it contracted by about 7 per cent, it achieved a steady growth between 6.8 and 9.4 per cent per annum. Electricity, gas and water supply and Construction, the other two constituents of secondary sector recorded an abysmally low growth in this period – of 2 and 2.5 per cent per annum, respectively.

Box 1.2: Gross State Value Added (GSVA) and Gross State Domestic Product (GSDP)

Introduced by Ministry of Statistics and Programme Implementation (MOSPI) in January 2015, as a better indicator of the growth of the economy, Gross Value Added (GVA) or Gross State Value Added (GSVA) is the summation of value addition made by enterprises, government and households. The GDP or GSDP is equal to GVA or GSVA at basic prices + product taxes – product subsidies.

Sectoral Contribution to Growth Rate: The tertiary sector has been the major contributor to the growth¹ of the state economy. Its contribution to the average annual growth rate of the economy between 2011-12 and 2016-17 has been about 56 per cent. While the contributions of the primary (comprising of ‘agriculture, forestry and fishing’, and ‘mining and quarrying’) and secondary (comprising of ‘manufacturing’, ‘electricity, gas, water supply and other utility services’, and ‘construction’) sectors to the growth rate of the state economy in this period have been only about 18 and 26 per cent respectively.

Within the tertiary sector, the two sub-sectors – ‘trade, repair, hotels and restaurants’, and ‘transport, storage, communication and services related to

broadcasting’, have made the major contribution to the growth of the state economy. Their contributions in the growth rate of the state have been about 21 and 16 per cent respectively. This has been because of very high growth in some of their constituents. The trade and repair sector, a constituent of ‘Trade, repair, hotels and restaurants’ has grown at a compound annual rate (CAGR) of about 15 per cent per annum; ‘Railways’ and ‘Communication and services related to broadcasting’, the constituents of ‘transport, storage, communication and services related to broadcasting’ have grown at the rate of 11.4 per cent and 25.4 per cent per annum respectively.

Despite impressive growth of 43.3 per cent per annum in this period, air transport, a constituent

¹ Contribution of a sector in the growth rate of the state economy is the growth rate of the sector weighted by the sector’s share in GSVA.

Table 1.3: Sectoral Contribution to Growth Rate & their Average annual Growth Rate and Average Share in GSVA between 2011-12 and 2016-17

| S. No. | Item | Contribution to growth rate | Av. Share in GSVA |
|-------------|--|-----------------------------|-------------------|
| 1. | Agriculture, forestry and fishing | 5.1 | 14.97 |
| 1.1 | Crops | 0.9 | 8.54 |
| 1.2 | Livestock | -0.1 | 2.87 |
| 1.3 | Forestry and logging | 3.2 | 3.13 |
| 1.4 | Fishing and aquaculture | 1.1 | 0.44 |
| 2. | Mining and quarrying | 13.2 | 11.64 |
| I. | Primary (1+2) | 18.3 | 26.61 |
| 3. | Manufacturing | 21.9 | 22.16 |
| 4. | Electricity, gas, water supply & other utility services | 0.5 | 1.63 |
| 5. | Construction | 3.5 | 9.11 |
| II. | Secondary (3+4+5) | 25.9 | 32.90 |
| III. | Industry (2+II) | 39.1 | 44.54 |
| 6. | Trade, repair, hotels and restaurants | 21.3 | 9.86 |
| 6.1 | Trade & repair services | 20.0 | 9.14 |
| 6.2 | Hotels & restaurants | 1.3 | 0.72 |
| 7. | Transport, storage, communication & services related to broadcasting | 15.6 | 7.90 |
| 7.1 | Railways | 4.0 | 2.43 |
| 7.2 | Road transport | 3.9 | 3.39 |
| 7.3 | Air transport | 0.1 | 0.02 |
| 7.4 | Services incidental to transport | -0.1 | 0.13 |
| 7.5 | Storage | 0.0 | 0.00 |
| 7.6 | Communication & services related to broadcasting | 7.7 | 1.93 |
| 8. | Financial services | 3.4 | 3.05 |
| 9. | Real estate, ownership of dwelling & professional services | 3.4 | 7.94 |
| 10. | Public administration | 2.7 | 5.88 |
| 11. | Other services | 9.4 | 5.86 |
| IV. | Tertiary(6+7+8+9+10+11) | 55.9 | 40.49 |
| 12. | TOTAL GSVA at basic prices | 100.0 | 100.00 |

Source: Calculated from the data of GSDP and related aggregates of DES, GoJ.

of ‘transport, storage, communication and services related to broadcasting’ sub-sector, has made a very negligible contribution of 0.1 per cent only to the economic growth rate. This has been because of its extremely low share of 0.02 per cent in GSVA.

The output of the ‘Agriculture, Forestry and Fishing sector’ constitutes about 15 per cent of the GSVA of the state, but its contribution to the growth rate of

the state is disproportionately low - only about 5 per cent. This is because of a very low average annual growth in crop production, a major constituent of this sector, and almost stagnant livestock production. Though fishing and aquaculture has made steady and impressive growth in this period, its contribution to the growth rate of the economy is only 1.1 per cent. This is because of its extremely low share (0.44 per

cent) in the GSVA of the state. Forestry and logging has recorded a compound annual growth of 8.3 per cent and has contributed 3.2 per cent to the growth of the state. The output of this sector constitutes 3.13 per cent of the GSVA of the state.

The contribution of industry (comprising of ‘mining and quarrying’ and ‘secondary sector’) to the growth rate of the state has been about 39 per cent in this period. Within this sector, the manufacturing and mining and quarrying have been the major contributors to the growth rate of the state adding about 22 and 13 per cent respectively. The other two constituents of industry, ‘Electricity, gas, water supply and other utility services’, and ‘Construction’ have made a negligible contribution to the growth of the economy –0.5 and 3.5 per cent respectively. This has been because of a very slow growth in these two sub-sectors. They grew at merely a compound annual rate of about 2 per cent in the last five years.

Sectoral Shares in GSDP

On an average, in the period 2011-12 to 2016-17, the value of the output of the agriculture, forestry and fishing constituted about 15 per cent, that of Industry about 45 per cent, and Services about 40 per cent of the GSVA of the state. Their shares in GSVA of the state in the year 2011-12 were 16.05 per cent, 45.41 per cent and 38.54 per cent respectively. By the year 2016-17 the share of agriculture in the GSVA decreased to 13 per cent and that of Services increased to 43.64 per cent. This has happened because of relatively slow growth in the agriculture, forestry and fishing sector and relatively high growth in the services sector. While the former grew at a compound annual rate of 2.3 per cent, the latter grew by 9.3 per cent. The Industry grew at a compound annual rate of 5.9 per cent, which is only marginally less than the growth rate of the economy. As a result, the share of Industry to the GSVA of the state has remained almost the same.

Table 1.4: Share of the major sectors in the GSVA of the state in the period 2011-12 to 2016-17

| Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | Av. Share in GSVA |
|--------------------------------------|---------|---------|---------|---------|------------|------------|-------------------|
| Agriculture, forestry & fishing | 16.05 | 15.73 | 15.30 | 17.71 | 12.67 | 13.00 | 14.97 |
| Mining and quarrying | 11.65 | 11.51 | 11.34 | 11.78 | 11.39 | 12.08 | 11.64 |
| Primary | 27.70 | 27.25 | 26.64 | 29.49 | 24.06 | 25.08 | 26.61 |
| Secondary | 33.76 | 34.90 | 33.82 | 31.73 | 32.33 | 31.56 | 32.90 |
| Industry | 45.41 | 46.41 | 45.16 | 43.51 | 43.72 | 43.64 | 44.54 |
| Services/ Tertiary | 38.54 | 37.85 | 39.54 | 38.78 | 43.61 | 43.36 | 40.49 |
| GSVA | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Taxes on Products as a % of GSVA | 10.9 | 11.3 | 11.5 | 10.8 | 13.1 | 12.0 | 11.66 |
| Subsidies on Products as a % of GSVA | 2.4 | 2.7 | 2.3 | 1.9 | 1.8 | 1.7 | 2.08 |
| GSDP as % of GSVA | 108.5 | 108.6 | 109.3 | 108.9 | 111.3 | 110.4 | 109.57 |
| GSVA as a % of GSDP | 92.2 | 92.1 | 91.5 | 91.8 | 89.9 | 90.6 | 91.26 |

Source: Calculated from the data of GSDP and related aggregates of DES, GoJ.

While the share of agriculture, forestry and fishing in the GSVA of the state decreased by about 3 percentage points between 2011-12 and 2016-17,

the share of Primary sector, of which it is one of the constituent, remained almost the same. This has happened because mining and quarrying, one of the

constituents of the primary sector maintained its share between 11 and 12 per cent of the GSVA of the state throughout this period. Its share in GSVA was 11.65 per cent in the year 2011-12 and, with very little fluctuations throughout this period, it has been estimated to be 12.08 per cent in the year 2016-17.

Agriculture, Forestry and Fishing Sector

In terms of the value of output, crop production is the most important sub-sector of the Agriculture, Forestry and Fishing Sector. The value of its output, on an average, constitutes about 57 per cent of the total output of this sector. Despite year-to-year fluctuations, the share of the value of output of this sector in the total output of agriculture, forestry and fishing sector has declined from 60 per cent in the

year 2011-12 to about 55 per cent in the year 2016-17.

Similar to crop production, the share of the output of livestock to the total output of agriculture, forestry and fishing sector has also fluctuated between 21 per cent in 2011-12 to about 15 per cent in the year 2014-15. On the whole, however, its share has declined to about 19 per cent of the output of agriculture, forestry and fishing sector in the year 2016-17.

Unlike Crop and Livestock, the shares of Forestry and Logging, and Fishing have increased steadily. The share of forestry and logging has increased from 16 per cent to 21 per cent and that of fishing from 2.5 per cent to 4.5 per cent in the period 2011-12 to 2016-17.

Table 1.5: Value of the output of Agriculture, forestry & fishing sector and constituents

(Rs. Crore)

| Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) |
|---------------------------------|---------|---------|---------|---------|------------|------------|
| Crops | 13421 | 14980 | 14305 | 15074 | 12187 | 13913 |
| Livestock | 4776 | 4457 | 4611 | 4751 | 4888 | 4702 |
| Forestry and logging | 3576 | 3619 | 3653 | 9853 | 4710 | 5317 |
| Fishing and aquaculture | 563 | 593 | 644 | 654 | 712 | 1126 |
| Agriculture, forestry & fishing | 22335 | 23650 | 23213 | 30332 | 22498 | 25058 |

Source: Department of Economics and Statistics, GoJ.

Table 1.6: Share of the value of output of the constituents of Agriculture, forestry and fishing sector in its total output

| Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | Av. Share in total output |
|--|---------|---------|---------|---------|------------|------------|---------------------------|
| Crops | 60.1 | 63.3 | 61.6 | 49.7 | 54.2 | 55.5 | 57.0 |
| Livestock | 21.4 | 18.9 | 19.9 | 15.7 | 21.7 | 18.8 | 19.2 |
| Forestry and logging | 16.0 | 15.3 | 15.7 | 32.5 | 20.9 | 21.2 | 20.9 |
| Fishing and aquaculture | 2.5 | 2.5 | 2.8 | 2.2 | 3.2 | 4.5 | 2.9 |
| Agriculture, forestry & fishing | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

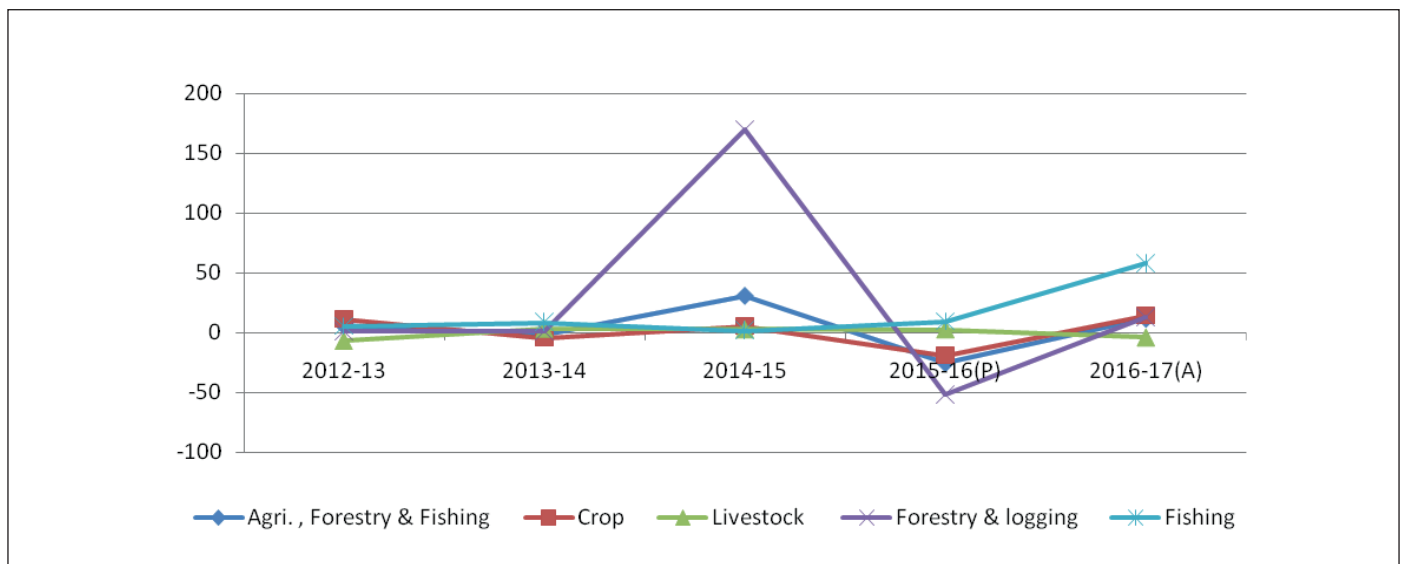
Source: Calculated from the data of GSDP and related aggregates of DES, GoJ.

The reasons for the decline of and fluctuation in the share of the value of the output of Crop and Livestock sectors in the total output of Agriculture, Forestry and Fishing sector are their less than the average growth rate and the high year-to-year variations in their growth rate. While the Agriculture, Forestry and Fishing Sector grew at a compound rate of 2.3 per cent per annum (Table 1.3), the crop production grew at a compound rate of 0.7 per cent per annum, and livestock grew at (-) 0.3 per cent per annum. Their growth rates have also been highly volatile. The growth rate of crop production has varied from 11.6 per cent in 2012-13 to (-) 19.1 per cent in 2015-16. The standard deviation of its growth rate has been 13.6 in the period 2011-12 to 2016-17. Similarly, the

growth rate of livestock sector has varied from - 6.7 per cent in the year 2012-13 to 3.5 per cent in the year 2013-14. The standard deviation of its growth rate has been 4.7 in the period 2011-12 to 2016-17.

The performance of the other two constituents of Agriculture, Forestry and Fishing sector has remained much better than that of the above sub-sectors and the average of the sectors. The forestry and logging, and fishing and aquaculture, the other two constituents of Agriculture, Forestry and Fishing sector, have grown at a much higher rate than the average growth rate of this sector. These two sub-sectors have grown at a compound annual rate of about 8 and 15 per cent respectively.

Figure 1.1: Growth Rate of the Constituents of Agriculture, Forestry and Fishing Sector



Industry

Manufacturing is the most important sub-sector of the Industrial sector. The output of this sub-sector constitutes about 50 per cent of the total output of the Industrial sector on the whole. The value of the output of mining and quarrying constitutes about 26 per cent and that of the Construction sub-sector constitutes about 20 per cent of the total output of this sector. In terms of the value of output, the Electricity, gas, water supply and other utility services are an

insignificant constituent of the Industrial sector. The output of this sub-sector contributes only 3.7 per cent to the total output of the Industrial sector. The share of this sub-sector has declined in the last six years from 3.8 per cent of the total output of the Industrial sector in 2011-12 to 3.2 per cent 2016-17. The share of the value of output of construction has also declined from about 23 per cent to 19 per cent in this period.

Table 1.7: Value of output of Industrial sector at constant prices

(Rs. Crore)

| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) |
|---|---------|---------|---------|---------|------------|------------|
| Mining and quarrying | 16205 | 17305 | 17206 | 20179 | 20220 | 23283 |
| Manufacturing | 30166 | 36148 | 33564 | 36720 | 39245 | 41903 |
| Electricity, gas, water supply & other utility services | 2412 | 2863 | 2910 | 2710 | 2476 | 2667 |
| Construction | 14395 | 13443 | 14843 | 14904 | 15688 | 16261 |
| Industry | 63177 | 69760 | 68523 | 74514 | 77629 | 84113 |

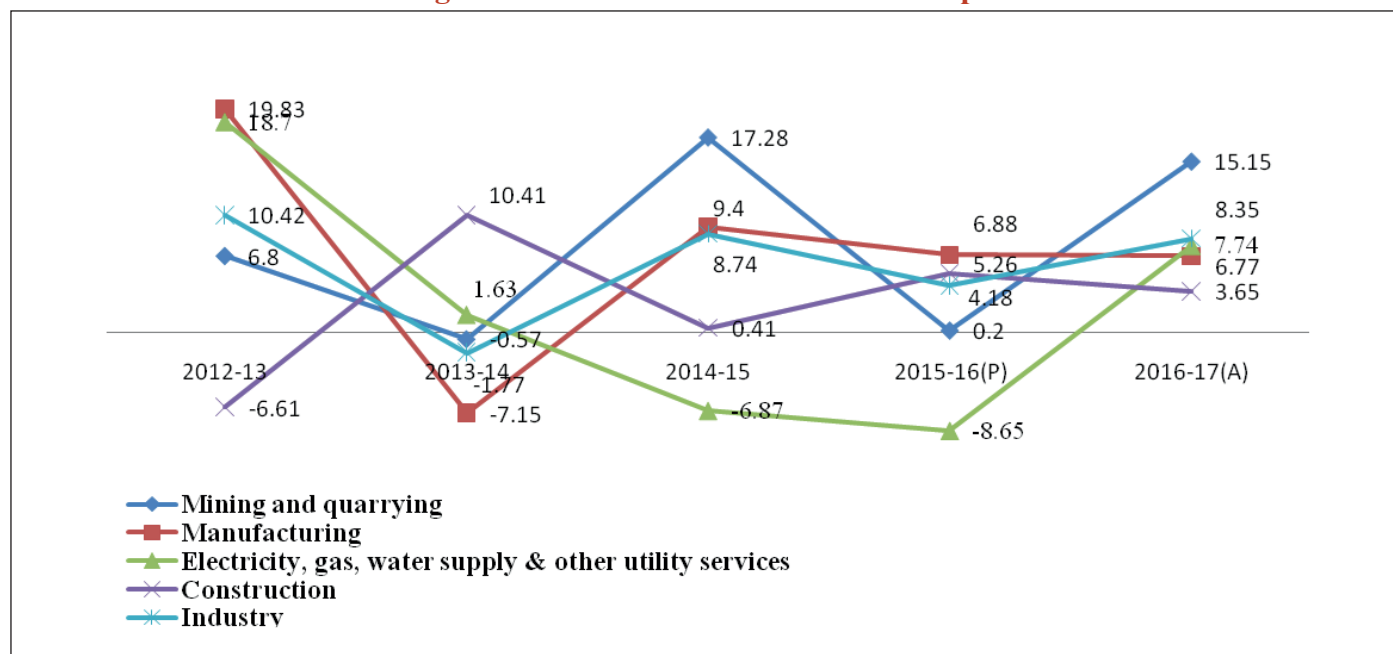
Table 1.8: Share of the sub sectors in industrial output

| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | Av. Share in total output |
|---|---------|---------|---------|---------|------------|------------|---------------------------|
| Mining and quarrying | 25.6 | 24.8 | 25.1 | 27.1 | 26.0 | 27.7 | 26.1 |
| Manufacturing | 47.7 | 51.8 | 49.0 | 49.3 | 50.6 | 49.8 | 49.7 |
| Electricity, gas, water supply & other utility services | 3.8 | 4.1 | 4.2 | 3.6 | 3.2 | 3.2 | 3.7 |
| Construction | 22.8 | 19.3 | 21.7 | 20.0 | 20.2 | 19.3 | 20.5 |
| Industry | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Improvement in the share of Mining and quarrying and Manufacturing in the total output of Industrial sector is because of their above-average growth rate. While the value of the output of the Industrial sector grew at a compound annual rate of 5.9 per cent, the output of these two sub-sectors in this period grew at compound annual rates of 7.5 and 6.8 per cent respectively. Electricity, gas, water supply and other utility services, and Construction, in this

period, grew at compound annual rates of 2 and 2.5 per cent respectively. The growth rates of these two sub-sectors have not only been low but have also been excessively volatile. Their standard deviations have been 11.2 and 6.3 respectively. Their shares in the total output of this sector have, therefore, fluctuated much more than the other constituents of the Industrial sector.

Figure 1.2: Growth rate in industrial output



Tertiary/ Service Sector

Tertiary/service sector, as has been mentioned already, has been the most important sector of the economy of

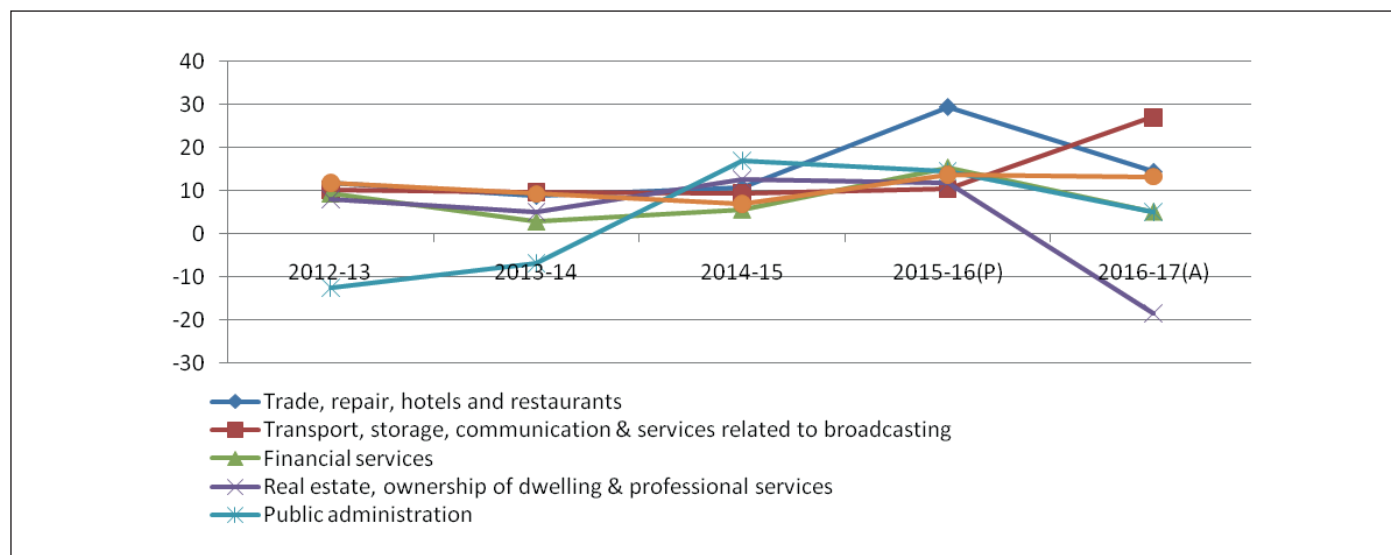
this state. The output of this sector constitutes about 40 per cent of the GSVA of the state; it is growing at a compound annual rate of 9.3 per cent, much faster

Table 1.9: Value of output of Tertiary sector at constant prices

(Rs. Crore)

| Sl. No. | Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) |
|---------|--|--------------|--------------|--------------|--------------|--------------|--------------|
| 1 | Trade, repair, hotels and restaurants | 11521 | 12873 | 14006 | 15493 | 20045 | 22926 |
| 1.1 | Trade & repair services | 10660 | 11844 | 12982 | 14252 | 18672 | 21384 |
| 1.2 | Hotels & restaurants | 862 | 1029 | 1023 | 1242 | 1373 | 1542 |
| 2 | Transport, storage, communication & services related to broadcasting | 9760 | 10763 | 11805 | 12914 | 14261 | 18131 |
| 2.1 | Railways | 2979 | 3454 | 3749 | 4218 | 4322 | 5111 |
| 2.2 | Road transport | 4582 | 4909 | 5357 | 5587 | 6226 | 6691 |
| 2.3 | Air transport | 14 | 13 | 23 | 34 | 58 | 83 |
| 2.4 | Services incidental to transport | 223 | 254 | 185 | 229 | 189 | 181 |
| | Transport (2.1+2.2+2.3+2.4) | 7798 | 8630 | 9314 | 10068 | 10795 | 12066 |
| 2.5 | Storage | 4 | 4 | 3 | 3 | 3 | 2 |
| 2.6 | Communication & services related to broadcasting | 1957 | 2129 | 2487 | 2844 | 3464 | 6061 |
| 3 | Financial services | 4144 | 4533 | 4665 | 4932 | 5693 | 5991 |
| 4 | Real estate, ownership of dwelling & professional services | 11012 | 11896 | 12493 | 14072 | 15734 | 12820 |
| 5 | Public administration | 9818 | 8591 | 8010 | 9369 | 10727 | 11270 |
| 6 | Other services | 7363 | 8241 | 9009 | 9630 | 10964 | 12426 |
| | Tertiary Sector | 53617 | 56897 | 59988 | 66412 | 77424 | 83564 |

Figure 1.3: Growth rate in the output of Tertiary Sector



Sectoral Share in Income and Employment

There are excessive sectoral variations in income and employment. While agriculture, in which 50 per cent of the workers are engaged, contributes only about 15 per cent to the GSVA of the state; the mining sector contributes about 12 per cent to the GSVA by employing only 2.3 per cent of the workers; and manufacturing contributes about 22 per cent to the GSVA of the state by absorbing only 7.7 per cent of the workers. This sectoral imbalance in income and employment indicates prevailing inequality in the state – while about 10 per cent of the workers (those engaged in mining and manufacturing) have about 34 per cent of the GSVA in their command, about half of the workers (those engaged in agriculture) get only 16 per cent of the income of the state. This also indicates a high incidence of disguised unemployment in the agriculture sector on one hand and very low labour absorptive capacity (low-income elasticity of employment) of mining and manufacturing sectors on the other.

Table 1.11: Sectoral share in GSVA and employment

| Sector | Av. Contribution to GSVA (%) 2011-12 to 2016 - 17 | Proportion of Workers (%) (NSS 68th Round) |
|----------------------|---|--|
| Mining | 11.64 | 2.3 |
| Manufacturing | 22.16 | 7.7 |
| Agriculture & allied | 14.97 | 50.0 |

Source: Calculated from the income data of DES, GoJ and employment data from NSS 68th round, 2011-12

Economic Performance of Jharkhand: A Comparative Analysis

At the time of its formation (in the financial year 2000-2001) the GSDP of Jharkhand at constant (1999-2000) prices was only 1.6 per cent of that of the whole country² and its per capita income was about 40 per cent less. It also lagged behind the all India average in most of the development indicators. Though the development gap still persists, it has succeeded in reducing these gaps over the years.

The share of income of Jharkhand in the national income has enhanced to 1.84 per cent in 2015-16.

² It is low in proportion to the area and population of the state. The total geographical area of the state is 2.4 per cent of that of the total geographical area of the country and its population is 2.62 per cent of the population of the country (2011 census)

Similarly, the per capita income of the state which was about 62 per cent of the per capita income of

India in 2001-02 has improved and in 2015-16 it is 70 per cent of that of the country.

Table 1.12: Income (GSDP/ GDP in Rs. Crore) and Per capita Income at constant prices of Jharkhand and India

| Year | Income (GSDP/ GDP) in Rs. Crore | | | Per capita Income | | |
|--|---------------------------------|-----------|------------------------|-------------------|-----------|------------------------|
| | Jharkhand | All India | Jharkhand as a % India | Jharkhand | All India | Jharkhand as a % India |
| 2001-02 at 1999-00 base year | 33043 | 1972606 | 1.68 | 10451 | 16764 | 62.34 |
| 2004-05 at 2004-05 base year | 59758 | 2971464 | 2.01 | 18510 | 24143 | 76.67 |
| 2011-12 at 2011-12 base year | 150918 | 8737575 | 1.73 | 41254 | 63460 | 65.01 |
| 2015-16 at 2011-12 base year | 209137 | 11350962 | 1.84 | 54140 | 77435 | 69.92 |

Source: Central Statistical Organisation, GoI.

Improvement in the share of the state to the national income or the reduction in the gap between the per capita income of the state and the country, as mentioned above, is because the economic performance of Jharkhand, since its formation, has mostly been better than that of the country. Between 2001-02 and 2004-05, and between 2012-13 and 2015-16, the growth rates of Jharkhand were approximately 1.7 percentage points higher than that

of the country. Between 2005-06 and 2011-12, its growth rate was slightly less than that of the country, but it was mainly because of its poor performance in 2005-06, 2006-2007 and again in 2008-09. If these years are ignored the average growth rate of Jharkhand, in this period, would have been 13.25 per cent against 8.47 per cent of that of the country as a whole.

Table 1.13: Rate of growth in income and per capita income of Country and State

| | Growth in Income | | Growth in Per capita income | |
|--|------------------|-------|-----------------------------|-------|
| | Jharkhand | India | Jharkhand | India |
| 2001-02 to 2004-05 at 99-00 base year | 8.14 | 6.41 | 6.69 | 4.58 |
| 2005-06 to 2011-12 at 04-05 base year | 7.21 | 8.47 | 5.11 | 6.99 |
| 2012-13 to 2015-16 at 11-12 base year | 8.59 | 6.76 | 7.15 | 5.11 |

Source: Calculated from the income data of Central Statistical Organisation, GoI

Despite good performance, the growth rate of Jharkhand has been more volatile than that of the country. The coefficient of variation of the growth rate of Jharkhand has been consistently higher than that of the country. The fluctuations in its growth

rate have mainly been because of the fluctuations in the output of agriculture and manufacturing sectors. The agriculture and allied sector, especially the crop sector and the manufacturing sector, have been more volatile than the other major sectors of the economy.

Table 1.14: The Coefficient of variation in Growth rate

| | 2001-02 to 2004-05 | 2005-06 to 2011-12 | 2012-13 to 2015-16 |
|-----------|--------------------|--------------------|--------------------|
| Jharkhand | 0.65 | 1.23 | 0.59 |
| India | 0.32 | 0.15 | 0.13 |

Source: Calculated from the income data of Central Statistical Organisation, GoI

Development Gaps

In most of the development indicators, related either with health, education, gender or amenities and infrastructure, Jharkhand lags behind the achievements made at all India level (Appendix-1). Between 2005-06 and 2015-16 (NFHS-3 and NFHS-4), the state has made commendable progress in some of these development indicators. In these ten years, indicators like institutional births, the percentage of children who are breast-fed within one hour of their birth and percentage of women who have a bank account which they themselves use, have recorded more than 200 per cent growth (NFHS-3 and NFHS-4). In other indicators also, the state has recorded appreciable progress. As a result, the gap between Jharkhand and all India, in most of the development indicators, has narrowed down.

Inter-District Disparity

There exists a wide regional, inter and intra-district disparity in Jharkhand. The Santhal Pargana, located in the north-east of the state and Palamu, located in the north west of the state are the less developed regions of the state. A composite index of 17 developmental indicators related to eight major dimensions of development³ found out that generally, the more urbanised and industrialised districts are more developed than the rest. The corridor which starts from the east and ends at the south-east, where the districts of Dhanbad, Bokaro, Ramgarh, Ranchi, Saraikela–Kharsawan and Purbi Singhbhu are located, is more developed than the districts located in the north-west and north-east of the state, because, this region is more urbanised than the latter two regions and is the hub of mining, commercial and industrial activities.

Table 1.15: Inter-District Disparity in Development

| Highly Developed | Moderately Developed | Less Developed | |
|---------------------|----------------------|----------------|---------|
| Dhanbad | Kodarma | Lohardaga | Pakur |
| Ranchi | Deoghar | Sahibganj | Dumka |
| Ramgarh | Giridih | Jamtara | Godda |
| Bokaro | Hazaribagh | Latehar | Chatra |
| PurbiSinghbhum | Pashchimi Singhbhum | Gumla | Palamau |
| Saraikela-Kharsawan | | Khunti | Garhwa |
| | | Simdega | |

Intra-District Disparity

The state has also shown intra-district variations regarding some basic development indicators. To

illustrate this disparity, a composite index has been constructed by taking into account three different dimensions namely, Education, Health and standard

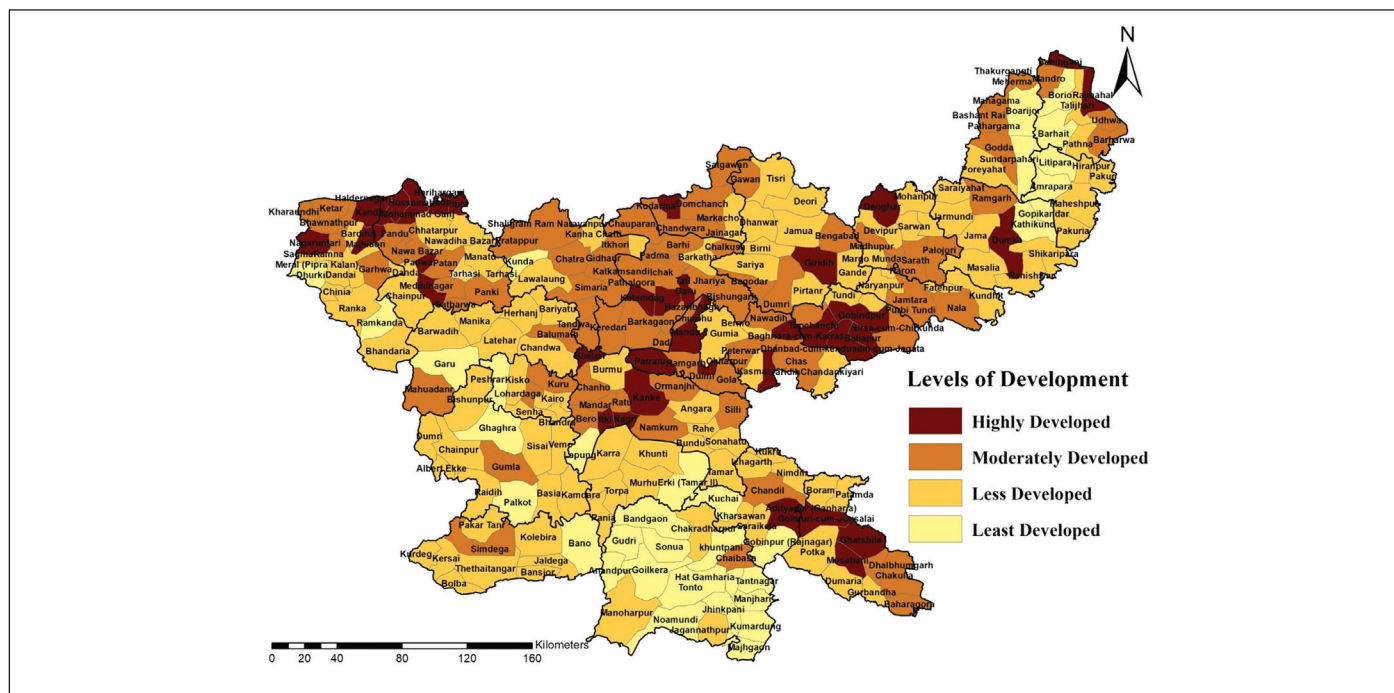
³ This composite index has been made using indicators related with eight dimensions of development, namely 1. Economic well-being, 2. Infrastructural development, 3. Asset Ownership, 4. Urbanization, 5. Education, 6. Health, 7. Non farm sector, and 8. Water & sanitation. It has been made using principal component analysis.

of living⁴. On the basis of this index, the blocks have been ranked and classified in four classes i.e. highly developed, moderately developed, less developed, and least developed using equal interval method. The index shows that about 47 per cent of the blocks in Jharkhand fall under the less developed category, while about 42 per cent fall in the category of moderately developed. On the other hand, about 5 per cent of the total blocks are highly developed and about 4 per cent blocks are least developed.

The index shows that, although, predominantly, the block wise ranking is in accordance with the district level ranking, there are some interesting intra district disparities to be looked into. Among the less developed blocks, Sahibganj and Pakur have the highest shares having four and three blocks respectively falling in the lowest rungs of development indicators. But, as mentioned earlier, one of the blocks named Chandankiyari of Bokaro

which is a highly developed district, fall among the least developed blocks of the state. Even nine blocks of Deoghar which is considered as a moderately developed district and five blocks of Bokaro which is considered to be a highly developed district fall among the less developed blocks. The index further reveals that, although Ranchi is the most developed district, its seven blocks namely Nagri, Bundu, Mandar, Silli, Itki, Rahe, Lapung still fall in moderately developed category, while blocks like Tamar and Bero fall in less developed category. Blocks like Barkattha from Hazaribag district and Sisai, Verno, Raidih from Gumla district also fall in less developed category. One block namely Tundi from the industrialised district of Dhanbad fall in the less developed category too. This reveals that although we consider the industrial corridor which includes Dhanbad, Bokaro, Ranchi, Saraikela and Purbi Singhbhum doing well in development indicators, the development is not all pervasive.

Map 1.1: Block wise variations in the levels of Development



Source: Computed from Census of India, 2011 and Socio-Economic and Caste Census, 2011

4 A composite index has been constructed by taking into account three different dimensions namely Education, Health and Standard of living. These dimensions have been described by indicators like literacy, block-wise population per PHC centres, population per doctor for health; household income and SECC's deprivation for the standard of living. For constructing this index, data were extracted from CENSUS 2011 and Socio-Economic caste census 2011.

On the other hand, some of the blocks from less developed districts have shown the high potential of being among the best performing blocks. The index shows that one block from Simdega namely Bansjor fall among the highly developed blocks, while, Simdega, on the whole, is a less developed district. Similarly, Kuru, Bhandra and Lohardaga blocks of Lohardaga district reflect good development. The index also shows a very important trend that although districts like Dumka, Simdega, Lohardaga are some of the least developed districts, the blocks containing the block headquarters are comparatively performing well. This means that the fruits of development in terms of education, health and livelihood opportunities might have stayed constrained only to the main blocks in the district.

Conclusion

The economic performance of Jharkhand has been good in the last six years. The tertiary sector has been the major contributor to this growth rate. Its contribution to the average annual growth rate of the economy between 2011-12 and 2016-17 has been about 56 per cent. The contributions of primary and secondary sectors, to the growth rate of the state economy in this period, have been only about 18 and 26 per cent respectively. The contribution of

industry to the growth rate of the state has been about 39 per cent in this period. Within this sector, the manufacturing and mining and quarrying have been the major contributor to the growth rate of the state contributing about 22 and 13 per cent respectively.

There is a sectoral imbalance in income and employment in the state. This sectoral imbalance in income and employment indicates prevailing inequality in the state – while about 10 per cent of the workers (those engaged in mining and manufacturing) have about 34 per cent of the GSVA in their command, about half of the workers (those engaged in agriculture) get only 16 per cent of the income of the state.

In almost all the indicators of development, Jharkhand lags behind the all India average. But the developmental gaps have narrowed down over the years because the state economy, in most of the indicators, has grown faster than the national average. The performance of the state economy, however, is not uniform throughout the state. Generally, the more urbanised and industrialised districts are more developed than the rest; and the blocks having the district headquarters are more developed than the rest.

II

FISCAL DEVELOPMENT AND STATE FINANCES

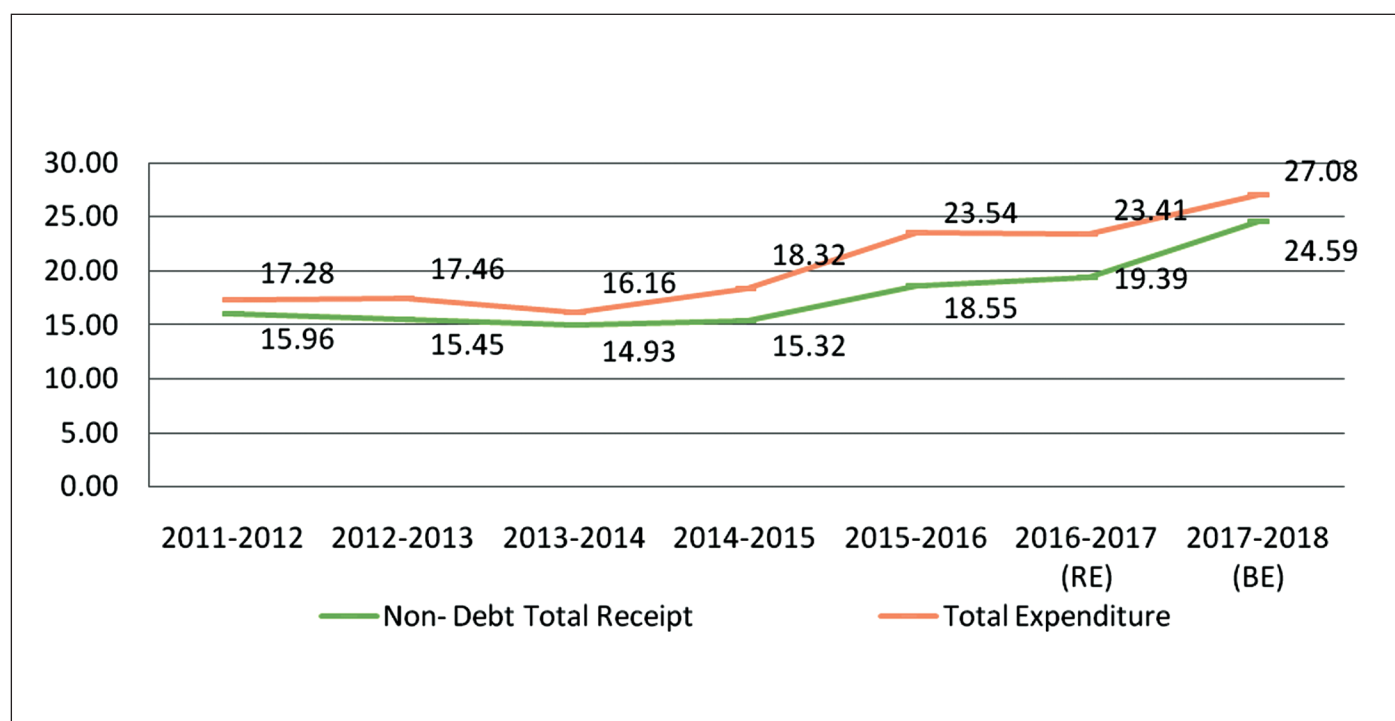


The fiscal position of Jharkhand has strengthened in the last three years. Both the total receipts (non-debt) and total expenditure, as a percentage of the GSDP of the state, has increased since 2014-15. In the current financial year [2017-18 (BE)] they are estimated to grow by about 27 per cent. The fiscal deficit of the state is within FRBM targets and the public debt is well within the sustainable limit.

The fiscal position of Jharkhand has strengthened in the last three years. Both the total receipts (non-debt) and total expenditure, as a percentage of the GSDP

of the state, has increased since 2014-15. The total expenditure of the state was about 17 per cent of the GSDP in the year 2011-12, became 18 per cent of the GSDP in the year 2014-15 and to about 23 per cent in the year 2015-16 and 2016-17. It is estimated to grow to about 27 per cent of the GSDP in the current financial year (2017-18). Similarly, the non-debt total receipt has also increased from about 16 per cent of GSDP in the year 2011-12 to 19 per cent in the year 2016-17 and estimated to be about 25 per cent in the current financial year – 2017-18.

Figure 2.1: Total Expenditure and Total Receipts (Non-Debt) as a percentage of GSDP



Source: Department of Planning-cum-Finance (Finance Division), GoJ

This has happened because of a very high increase in both the receipts and expenditure of the state. In the period 2014-15 to 2016-17 the total receipts of the state has increased at a compound annual rate (CAGR) of 21.76 per cent and total expenditure

(non-debt) by 21.19 per cent. In the current financial year, the total receipt is estimated to grow by 27.48 per cent and the total expenditure (non-debt) by 39.77 per cent.

Table 2.1: Total Receipt and Total Expenditure in Rs. Crore & as a percentage of GSDP

| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) |
|---------------------------------------|----------|----------|----------|----------|----------|-----------------|-----------------|
| Total Receipts | 26082.47 | 30502.17 | 30463.22 | 40041.50 | 54437.27 | 59362.68 | 75673.42 |
| Growth in % | 17.40 | 16.95 | -0.13 | 31.44 | 35.95 | 9.05 | 17.40 |
| Total Receipts to GSDP ratio | 17.28 | 17.46 | 16.16 | 18.32 | 23.54 | 23.41 | 27.08 |
| Total Non-Debt Receipts | 24081.89 | 26995.72 | 28157.03 | 33477.50 | 42915.34 | 49170.27 | 68725.60 |
| Growth in % | | 12.10 | 4.30 | 18.90 | 28.19 | 14.58 | 39.77 |
| Total Non-Debt Receipts to GSDP ratio | 15.96 | 15.45 | 14.93 | 15.32 | 18.55 | 19.39 | 24.59 |
| Total Expenditure | 26082.47 | 30502.17 | 30463.22 | 40041.50 | 54437.27 | 59362.68 | 26082.47 |
| Growth in % | 17.40 | 16.95 | -0.13 | 31.44 | 35.95 | 9.05 | 17.40 |
| Total Expenditure to GSDP ratio | 17.28 | 17.46 | 16.16 | 18.32 | 23.54 | 23.41 | 27.08 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Receipts

As has been mentioned above, since the last three years, the fiscal position of the state has witnessed improvement. Total Receipts of the state, which had experienced about 17 per cent rate of growth in the years 2011-12 and 2012-13 dipped by 0.13 per cent in the year 2013-14¹, but thereafter, it showed improvement and increased by 31.44 per cent in the 2014-15 and 35.95 per cent in the year 2015-16. It is estimated to grow by 27.48 per cent in the year 2017-18 (BE). As a result, the Total Receipt of the state, which had increased at a compound annual

growth rate (CAGR) of 8.1 per cent between 2011-12 and 2013-14, jumped to 22.10 per cent between 2014-15 and 2016-17.

The year 2016-17 had experienced a very modest increase in the total receipt of the state. But, this was mainly because of decline in capital receipts, especially the debt incurring part of it. The borrowing and other liabilities of the state, in the year 2016-17, had declined by 10.88 per cent from Rs. 13767.86 crore to Rs. 12270.30 crore. In the current financial year, it is expected to further decline by another 18.5 per cent to Rs. 10 thousand crore.

¹ In the year 2013-14 both the total receipts and total expenditure of state almost remained stagnant. There was a substantial decline in non-tax revenue of the state and grants in aid from GOI this year. The total receipt increased by only 0.13 per cent while total expenditure decreased by 0.13 per cent. The year 2013-14 had been a year of economic deceleration for Jharkhand. The GSVA at constant prices this year had had increased by 0.9 per cent only and the GSDP at constant prices by 1.6 per cent only (See box 1.1 in chapter 1). Because the growth rate of GSDP of the state also remained depressed the ratio of receipt and expenditure to GSDP did not change much.

In the period 2014-15 to 2016-17, both the revenue and the capital receipts experienced impressive growth. The Revenue Receipts, which had grown at a compound annual rate of about 8 per cent between 2011-12 and 2013-14, recorded an impressive growth of about 22 per cent between 2014-15 and 2016-17. Similarly, the Capital Receipt, which grew by 8.7 per cent in the period 2011-12 to 2013-14, recorded an impressive growth of about 20 per cent in the period 2014-15 to 2016-17.

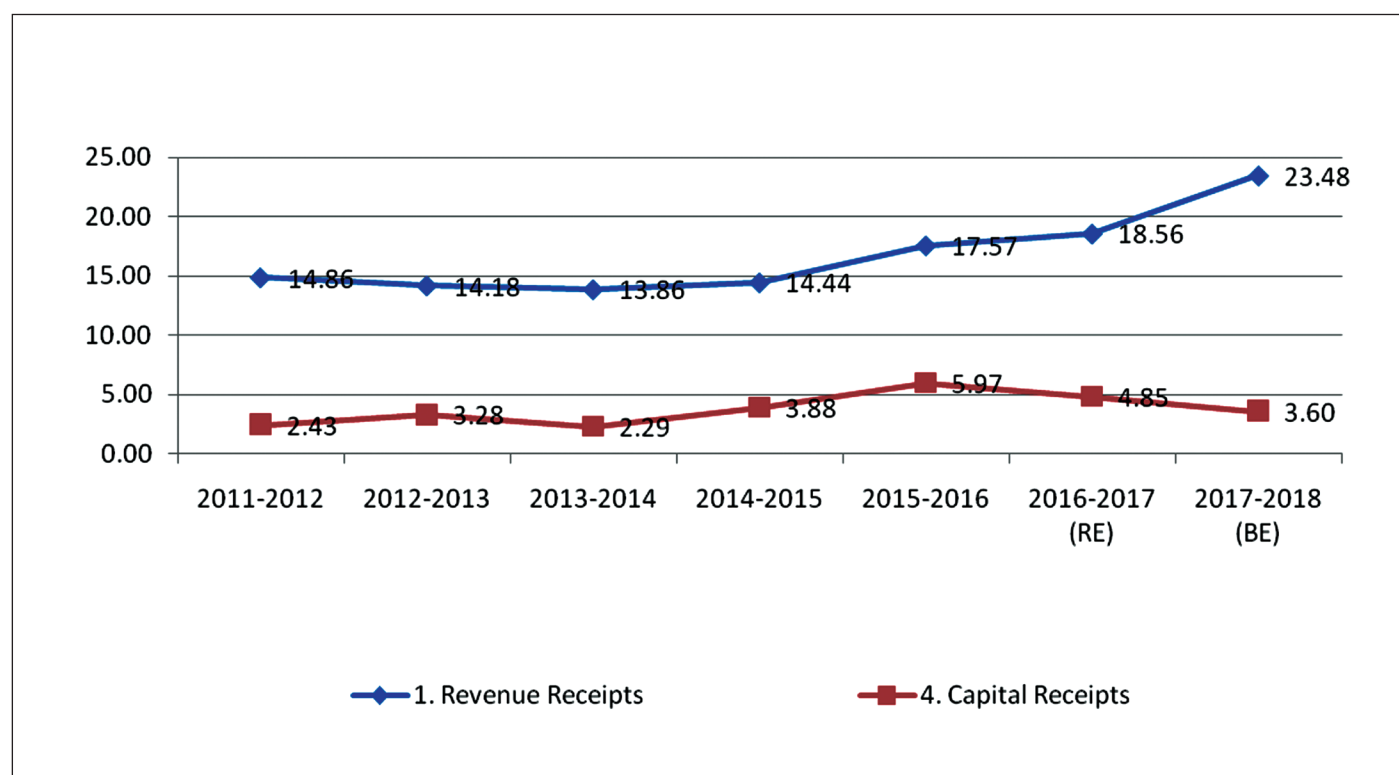
The Revenue and Capital Receipts as a Percentage of GSDP

The revenue receipts of the state as a percentage of

GSDP was 14.86 per cent in the year 2011-12. It continued decreasing in the following two years to become equal to 13.86 per cent in the year 2013-14. It has started increasing continuously since then. It increased to 18.56 per cent in the year 2016-17. In current financial year it is estimated to grow to the level of 23.48 per cent of the GSDP.

The capital receipts as a percentage of GSDP, after a marginal decline in the year 2013-14 kept on increasing till 2015-16. From 2.29 per cent of GSDP in the year 2013-14, it increased to 5.97 per cent in the year 2015-16. It, however, has started decreasing since then. In the current financial year it is estimated to be 3.60 per cent of the GSDP.

Figure 2.2: Revenue and Capital Receipts as a percentage of GSDP



Source: Department of Planning-cum-Finance (Finance Division), GoJ

Table 2.2: Trend of Revenue and Capital Receipts (yoy growth)

| | (Rs. in Crore, growth rate in %) | | | | | | | | | | |
|------------------|---|----------|----------|----------|----------|-----------------|-----------------|--------------------------------------|-----------------------------------|--|--|
| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) | CAGR Between 2011-12 & 2013-14 | CAGR Between 2014-15 & 2016-17 | | |
| Total Receipts | 26082.47 | 30502.17 | 30463.22 | 40041.50 | 54437.27 | 59362.68 | 75673.42 | 8.07 | 21.76 | | |
| % Growth | 17.40 | 16.95 | -0.13 | 31.44 | 35.95 | 9.05 | 27.48 | | | | |
| Revenue Receipts | 22419.45 | 24769.56 | 26136.79 | 31564.56 | 40638.35 | 47053.93 | 65607.42 | 7.97 | 22.10 | | |
| % Growth | 19.37 | 10.48 | 5.52 | 20.77 | 28.75 | 15.79 | 39.43 | | | | |
| Capital Receipts | 3663.02 | 5732.61 | 4326.43 | 8476.94 | 13798.92 | 12308.75 | 10066 | 8.68 | 20.50 | | |
| % Growth | 6.64 | 56.50 | -24.53 | 95.93 | 62.78 | -10.80 | -18.22 | | | | |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Table 2.3: Trend of Tax and Non-Tax Revenue Receipts (yoy growth)

| | (Rs. in Crore, growth rate in %) | | | | | | | | | | |
|-----------------|---|----------|----------|----------|----------|----------|-----------------|--------------------------------------|-----------------------------------|--|--|
| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 (BE) | CAGR Between 2011-12 & 2013-14 | CAGR Between 2014-15 & 2016-17 | | |
| Tax Revenue | 14123.82 | 16411.72 | 18319.11 | 19836.82 | 27447.70 | 32441.17 | 40934.69 | 13.89 | 27.88 | | |
| % Growth | 18.98 | 16.20 | 11.62 | 8.28 | 38.37 | 18.19 | 26.18 | | | | |
| Non-Tax Revenue | 8295.63 | 8357.84 | 7817.68 | 11727.74 | 13190.65 | 14612.76 | 24672.73 | -2.92 | 11.62 | | |
| % Growth | 20.05 | 0.75 | -6.46 | 50.02 | 12.47 | 10.78 | 68.84 | | | | |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

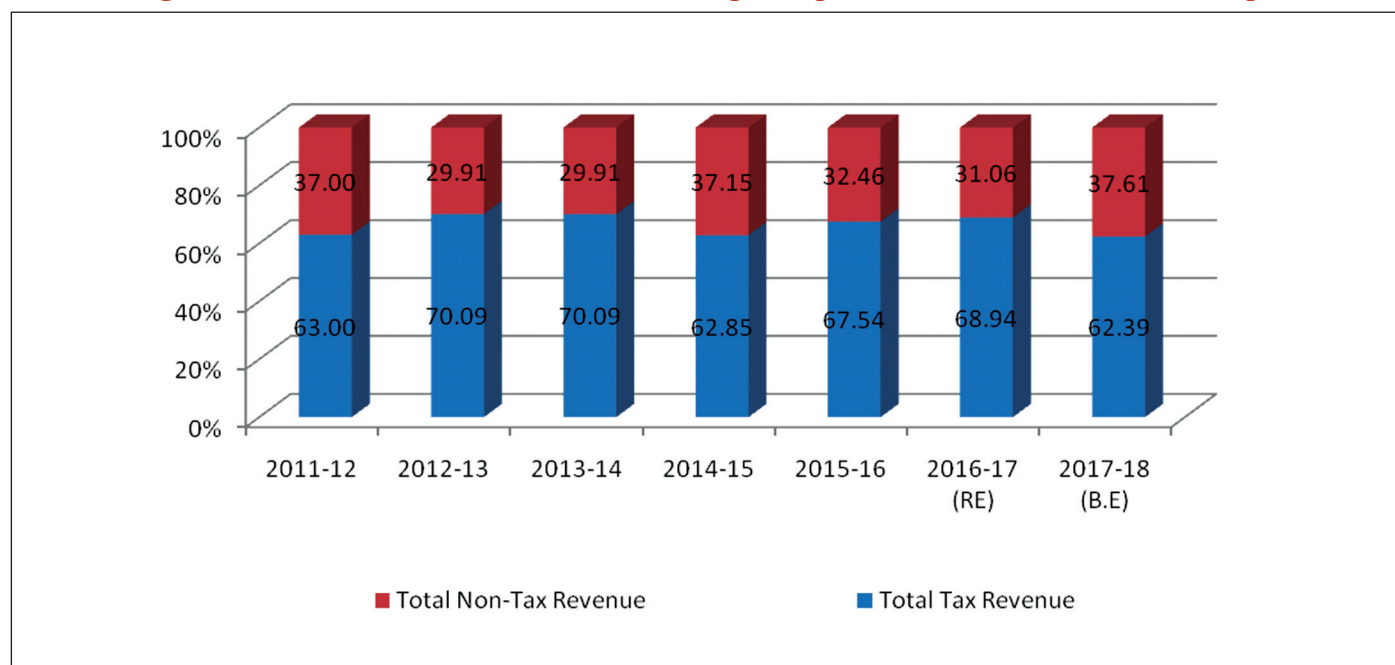
Revenue Receipts

The revenue receipts are comprised of tax and non-tax revenue receipts. Part of both these sources are generated within the state and part of it comes from the Central government as a share from central taxes and grants in aid from government of India.

About two thirds of the revenue receipts come from the tax sources and the rest from the non-tax receipts. Their relative share has changed because of the differential growth experience of these two sectors in the last six years. In comparison to the non-tax revenue, the tax revenue has shown an impressive growth both between 2011-12 and 2013-14 and 2014-15 and 2016-17. In the period 2011-12 to 2013-14 while the tax receipts grew at a compound annual rate of 13.89 per cent, the non-tax receipts

declined at the CAGR of -2.92 per cent. As a result, the share of non-tax receipts in the total receipts decreased from about 37 per cent in the year 2011-12 to about 30 per cent in the year 2013-14. Because of a massive growth in non-tax receipts, especially in grants in aid from GOI which increased by more than 80 per cent, it could regain its share in the year 2014-15. But because of only modest growth in the following two years it again lost its share in the total receipts of the state to about 31 per cent. Between 2014-15 and 2016-17, the tax revenue grew at a compound annual rate of 27.88 per cent while the non-tax revenue grew by 11.62 per cent only. In the current financial year, the non-tax revenue has been estimated to grow by 68.84 per cent, its share in total receipt, therefore, is estimated to grow to become about 38 per cent once again.

Figure 2.3: Tax and Non-Tax Revenue Receipts as per cent of Total Revenue Receipts



Source: Department of Planning-cum-Finance (Finance Division), GoJ

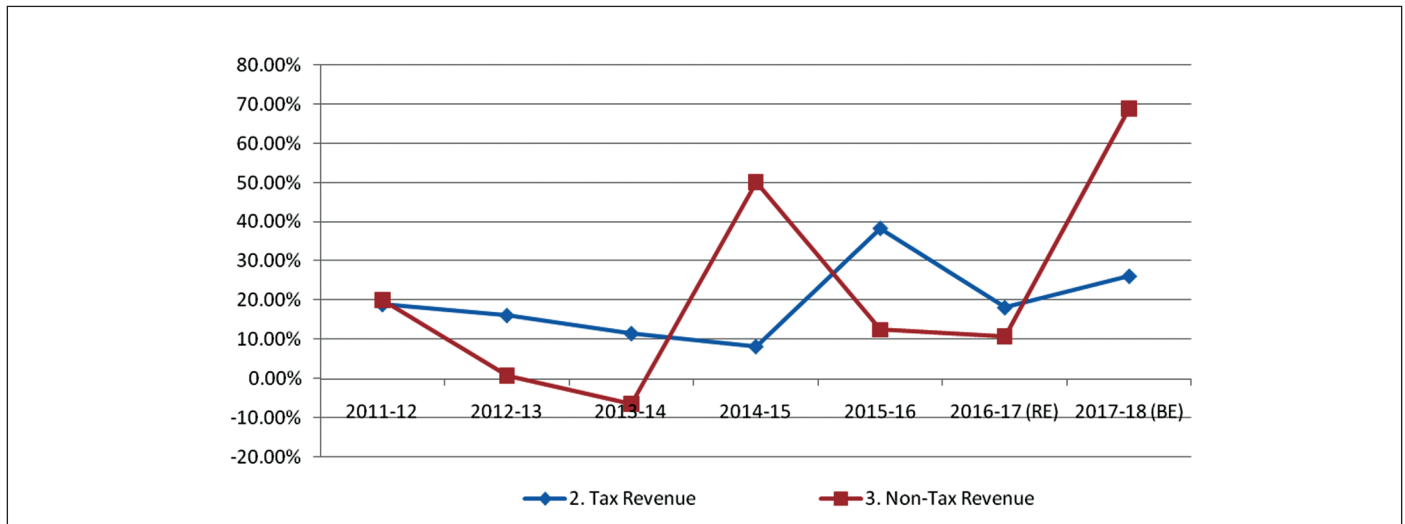
There have been high year to year fluctuations in the growth rate of both tax and non-tax revenues. The year to year rate of growth of tax revenue decelerated from 18.98 per cent in 2011-12 to 8.28 per cent in 2014-15 and then accelerated to 38.37 per cent in the next year. It again decreased to 18.19 per cent

in the following year - 2016-17. It is estimated to grow by 26.18 per cent in the current financial year (2017-18). The rate of growth of non tax revenue has mostly been less than that of tax revenue. The growth rate of non-tax revenue was 20 per cent in the year 2011-12, it made a sharp dip to 0.75 per

cent and - 6.64 in the following two years - in the years 2013-14 and 2014-15, respectively. It hiked by 50 per cent in the year 2014-15. There was very modest growth in non-tax revenue in the following

two years. It grew by 12.47 and 10.78 per cent in the years 2015-16 and 2016-17, respectively. This year it is estimated to grow by 68.84 per cent.

Figure 2.4: Growth in Tax and Non-Tax Revenue Receipts (In per cent)



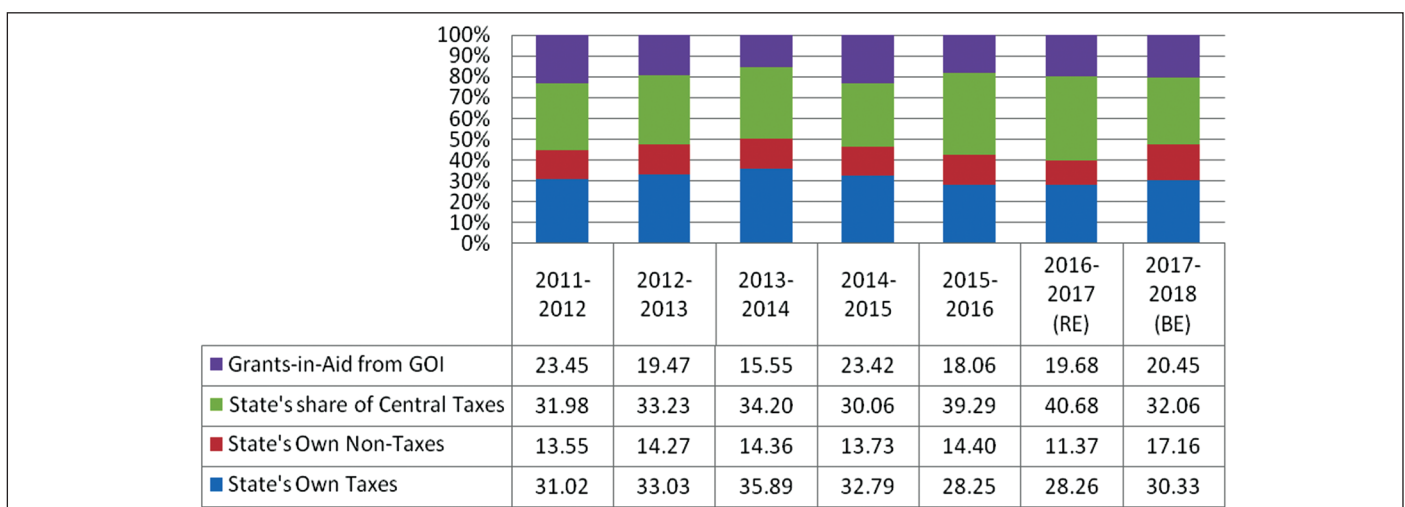
Source: Department of Planning-cum-Finance (Finance Division), GoJ

Share of Centre and State in Revenue Receipts of the State

Part of the total revenue receipts of the state government is generated within the state and part of it comes from Central Government. Share in central taxes is part of the tax revenue and Grants in aid

from GOI is part of the non-tax revenue receipts of the state. The two of them contribute more than 50 per cent to the revenue receipts of the state. About 20 per cent of the revenue receipts of the state come from the Centre in form of Grants in aid and more than 30 per cent as share in the central taxes.

Figure 2.5: Share of Centre and State in the total Revenue Receipts of the State



Source: Department of Planning-cum-Finance (Finance Division), GoJ

Tax Revenue

Almost half of the tax revenue of the state is comprised of the share from central taxes and another half is generated from its own taxes. The states share in central taxes after the implementation of the 14th Finance Commission has increased. The devolution to the states had increased by 68.32 per cent in 2015-16 in comparison to 2014-15, from Rs. 9487 crore to Rs. 15,968 crore. In the year 2016-17, it further

increased by about 20 per cent. As a result, while the state's share in central taxes constituted about 48 per cent of the tax revenue of the state in the year 2014-15, it increased to 58 per cent in the year 2015-16 and 59 per cent in the year 2016-17. This financial year (2017-18), since a 26.18 per cent of growth has been estimated in the states own taxes, the state's share of Central taxes is expected to decline to about 51 per cent this year.

Table 2.4: Trend and Composition of Tax Revenue (In Rs. crore)

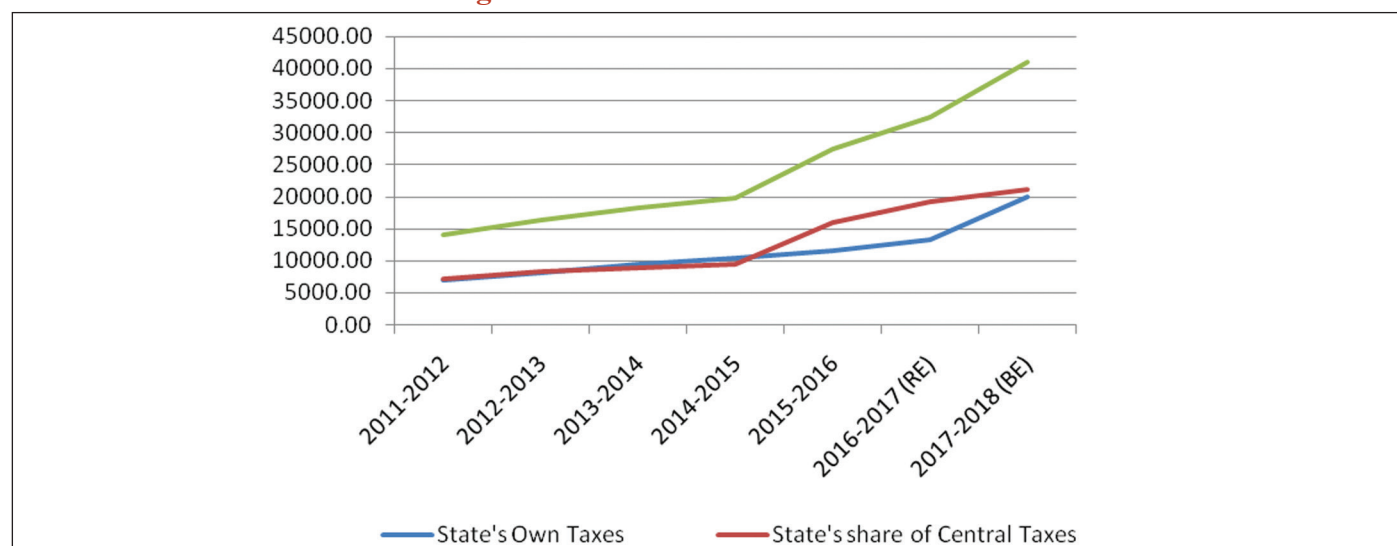
| | 2011-12 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 (RE) | 2017-2018 (BE) |
|------------------------------------|----------|-----------|-----------|-----------|-----------|----------------|----------------|
| Tax Revenue | 14123.82 | 16411.72 | 18319.11 | 19836.82 | 27447.70 | 32441.17 | 40934.69 |
| % Growth | 18.98 | 16.20 | 11.62 | 8.28 | 38.37 | 18.19 | 26.18 |
| (a) State's share of Central Taxes | 7169.93 | 8231.53 | 8939.32 | 9487.01 | 15968.75 | 19141.92 | 21034.19 |
| % Growth | 16.50 | 14.81 | 8.60 | 6.13 | 68.32 | 19.87 | 9.89 |
| (b) State's Own Taxes | | 8180.19 | 9379.79 | 10349.81 | 11478.95 | 13299.25 | 19900.50 |
| % Growth | | 17.63 | 14.66 | 10.34 | 10.91 | 15.86 | 49.64 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

There can be seen an increasing trend in the tax revenue collected by the state. Till 2014-15 both the state's own tax revenue and the state's share in central taxes increased at almost the same rate hence, their share in the total tax revenue remained

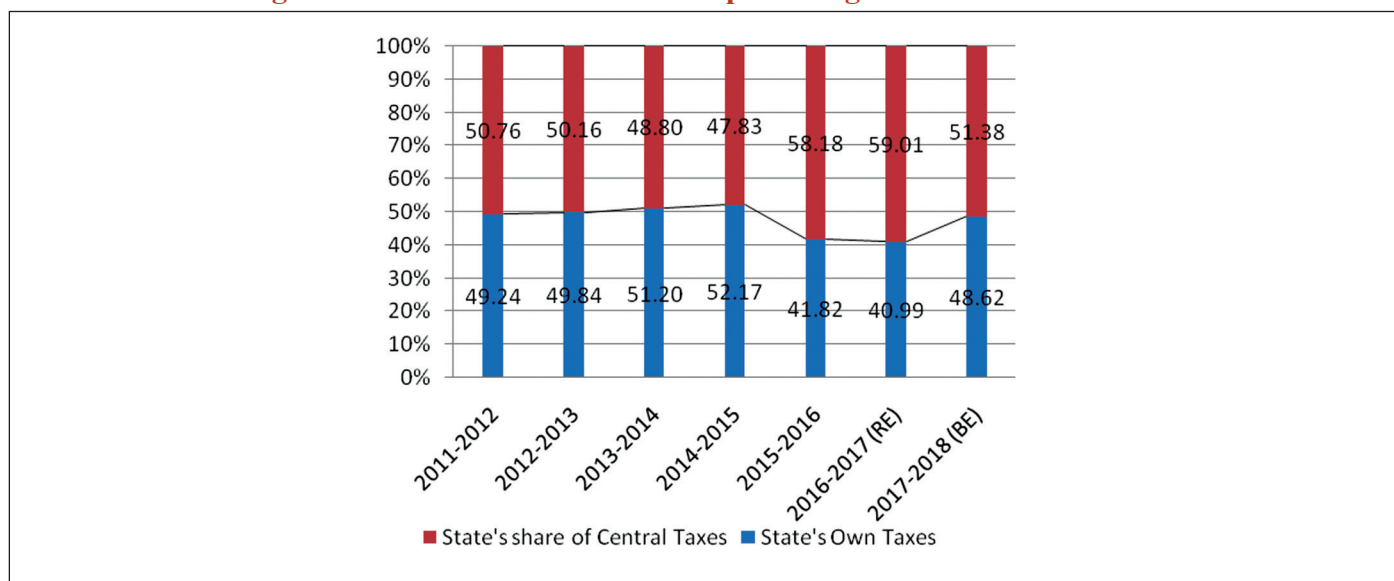
almost constant. However, in 2015-16, and 2016-17 the state's share in central taxes increased at a faster rate than state's own taxes, but the two are seen to be converging in the Budget Estimates of 2017-18.

Figure 2.6: Trend in Total Tax revenue



Source: Department of Planning-cum-Finance (Finance Division), GoJ

Figure 2.7 : State's Own Taxes as a percentage of Total Tax Revenue



Source: Department of Planning-cum-Finance (Finance Division), GoJ

The state's tax revenue comes from Taxes on Income and expenditure, Property and capital transactions and Commodities and services; of which taxes on commodities and services comprises of the highest share of almost 67 per cent of the total tax revenue, followed by taxes on income and expenditure whose share is about 30 per cent followed by taxes on property and capital transactions which are only about 3 per cent of the total tax revenue collections.

Between 2014-15 and 2016 -17 the 'taxes on income and expenditure' has grown at a compound annual

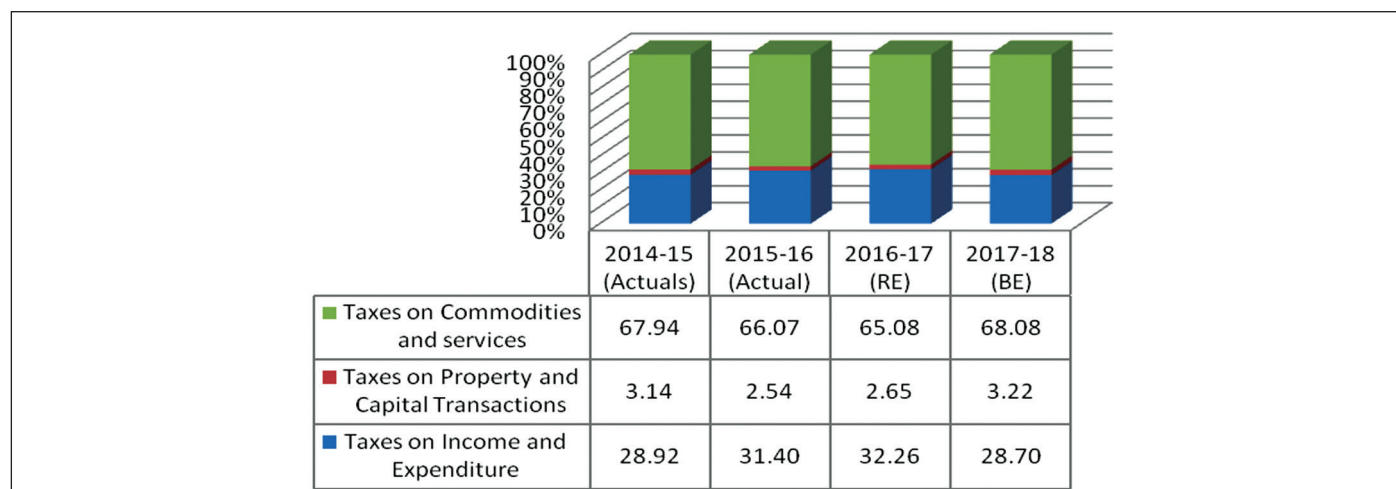
rate of about 35 per cent, the 'taxes on property and capital transactions' at CAGR of about 17 per cent and the taxes on 'commodities and services' at CAGR of about 25 per cent. Because of a relatively higher growth rate the share of the 'taxes on income and expenditure' in total tax revenue of the state has improved, though marginally in this period. In the current financial year (2017-18) the 'taxes on income and expenditure' is estimated to grow by about 12 per cent, the 'taxes on property and capital transactions' by about 53 per cent and the taxes on 'commodities and services' by about 32 per cent.

Table 2.5 : Consolidated Fund of Jharkhand: Revenue Account- Receipts (in Rs. Lakh)

| Major Head | Tax Revenue | | | | CAGR (2014-15 to 2016-17) | Growth between 2016-17 (RE) to 2017-18 (BE) |
|--|-------------------|------------------|--------------|--------------|---------------------------|---|
| | 2014-15 (Actuals) | 2015-16 (Actual) | 2016-17 (RE) | 2017-18 (BE) | | |
| Taxes on Income and Expenditure | 573588.6 | 861722.46 | 1046626.91 | 1174699.99 | 35.08 | 12.2 |
| Taxes on Property and Capital Transactions | 62314.64 | 69706.25 | 86131.16 | 131886.18 | 17.57 | 53.1 |
| Taxes on Commodities and services | 1347778 | 1813340.98 | 2111359.35 | 2786883.07 | 25.16 | 32.0 |
| Total tax Revenue | 1983682 | 2744769.69 | 3244117.41 | 4093469.24 | 27.88 | 26.2 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Figure 2.8 : The Composition of Tax Revenue



Source: Department of Planning-cum-Finance (Finance Division), GoJ

Non-Tax revenue

The Non-Tax revenue consists of States Own Non-Taxes and Grants-in-Aid from the Government of India. The state's own non-tax revenue has grown steadily between 2012-13 and 2015-16. In the year 2016-17 it, however, decreased by 8.57 per cent – by about Rs. 5 hundred crore. In the current financial year it has been estimated to increase by 110.38 per cent – by about six thousand crore in a single year.

The Grants-in-Aid from GOI, which was Rs. 5257.41 crore in 2011-12 declined steadily till 2013-14 to become equal to Rs. 4064.97 crore. It increased by about 82 per cent in the following year to become equal to Rs. 7392.68 crore. After the implementation of the 14th Finance Commission it again declined by - 0.74 per cent in the year 2015-16. It, however, recorded a growth of 26.22 per cent in the following year - 2016-17. In the current financial year it is estimated to increase by 44.84 per cent.

Table 2.6: Trend and composition of Non-tax Revenue (In Rs. crore)

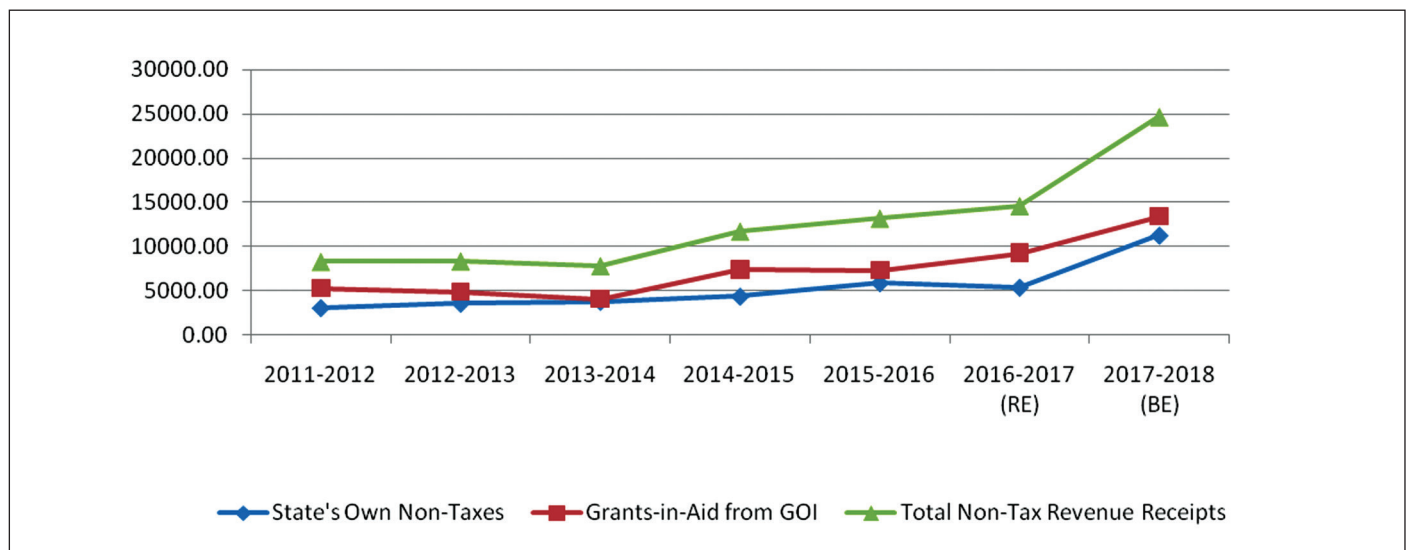
| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) |
|--|---------|---------|---------|----------|----------|-----------------|-----------------|
| Non-Tax Revenue | 8295.63 | 8357.84 | 7817.68 | 11727.74 | 13190.65 | 14612.76 | 24672.73 |
| % Growth | 20.05 | 0.75 | -6.46 | 50.02 | 12.47 | 10.78 | 68.84 |
| (a)State's Own Non-Taxes | 3038.22 | 3535.63 | 3752.71 | 4335.06 | 5853.01 | 5351.41 | 11258.16 |
| % Growth | 8.40 | 16.37 | 6.14 | 15.52 | 35.02 | -8.57 | 110.38 |
| (b)Grants-in-Aid from GoI | 5257.41 | 4822.20 | 4064.97 | 7392.68 | 7337.64 | 9261.35 | 13414.57 |
| % Growth | 28.00 | -8.28% | -15.70% | 81.86% | -0.74% | 26.22 | 44.84 |
| Share of State's Own Non-Taxes in total non-tax revenue | 36.62 | 42.30 | 48.00 | 36.96 | 44.37 | 36.62 | 45.63 |
| Share of Grants-in-Aid from GOI in total non-tax revenue | 63.38 | 57.70 | 52.00 | 63.04 | 55.63 | 63.38 | 54.37 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

The Grants-in-Aid from GOI comprise a larger portion of the total non-tax revenue of the state. Its share in the total non-tax revenue of the state was about 63 per cent in the year 2011-12. But because of negative growth in the following two years - 2012-13 and 2013-14 its share declined to 52 per cent of the non-tax revenue of the state by 2013-14. Its share in total non-tax revenue has improved since then. Its share in non-tax revenue has improved once

again to about 63 per cent in 2014-15 and 2016-17. In the current financial year it is estimated to be about 54 per cent of the non-tax revenue of the state. This is because the state's own non-tax revenue is also estimated to increase at a very high rate this year. While the Grants-in-Aid from GOI is estimated to grow by about 44 per cent in the current financial year, the state's own non-tax revenue is estimated to increase by 110 per cent.

Figure 2.9 : Trend in Non-Tax revenue



Source: Department of Planning-cum-Finance (Finance Division), GoJ

The States Own Non-Tax Revenue

The states own non-tax revenue consists of Interest Receipts, Dividends and Profits, General services, Economic services, Social services and other fiscal services. The Economic services constitute a major portion of the State's own non tax revenue collection of Jharkhand. It constituted about 90 per cent of the total own non-tax revenue receipts of the state in the year 2014-15. The major non-tax revenue collection from economic services is from non-ferrous mining and metallurgical industries.

Over the years the state's own non-tax revenue from general services and social services have grown faster than the own non-tax revenue from economic services, the share of general services and social

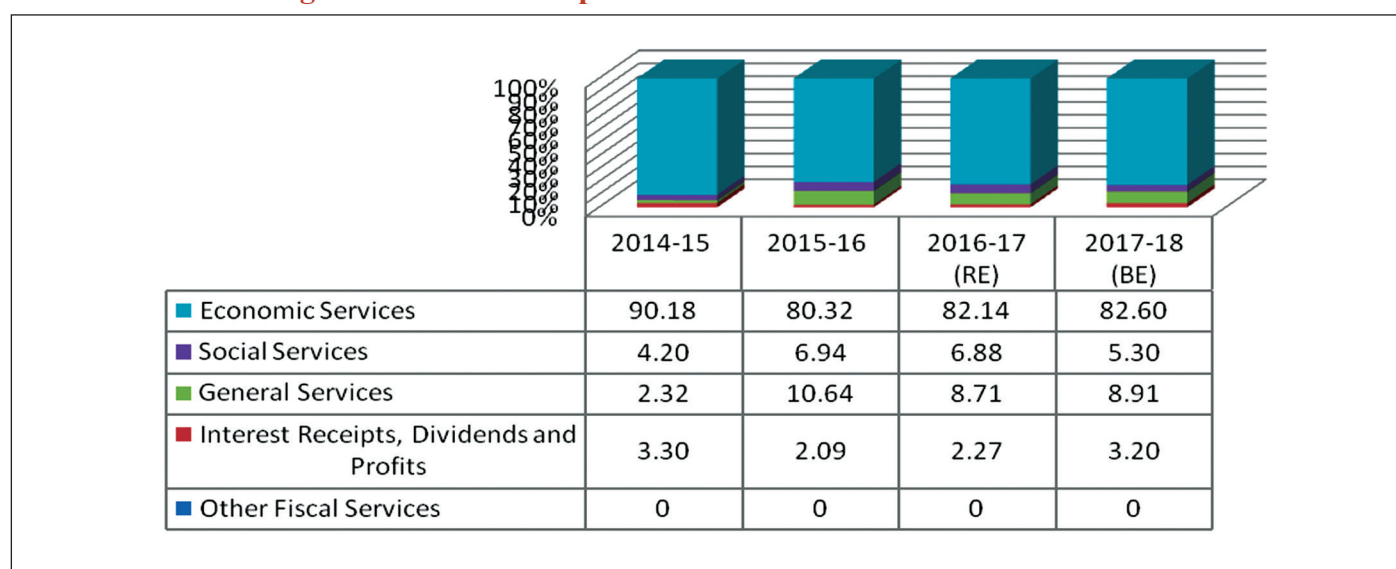
services in the total own non-tax revenue of the state has increased while that of the economic services has declined. While the state's own non-tax revenue from general services increased at a CAGR of about 115 per cent and that of social services has increased at CAGR of about 42 per cent, state's own non-tax revenue from economic services grew at a compound annual rate of 6 per cent only. In the current financial year they have been estimated to grow by 115, 62 and 111 per cent, respectively. 'Interest Receipts, Dividends and Profits', which constitutes a meagre 3 per cent of the state's own non-tax revenue, experienced a negative 7.9 per cent CAGR in the period 2014-15 to 2016-17. In the current financial year, however, it is estimated to grow by about 197 per cent.

Table 2.7: Consolidated Fund of Jharkhand: Revenue Account- Receipts (in Rs. Lakh)

| Major Head | States own Non Tax Revenue | | | | CAGR (2014-15 to 2016- 17) | Growth between 2016- 17 (RE) to 2017-18 (BE) |
|--|----------------------------|------------------|------------------|-------------------|-------------------------------------|---|
| | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) | | |
| Other Fiscal Services | | | | | | |
| Interest Receipts, Dividends and Profits | 14304.07 | 12243.68 | 12133.96 | 36000.09 | -7.9 | 196.7 |
| General Services | 10064.39 | 62298.69 | 46610.05 | 100299.31 | 115.2 | 115.2 |
| Social Services | 18201.74 | 40604.81 | 36819.21 | 59640.3 | 42.2 | 62.0 |
| Economic Services | 390936.2 | 470107.62 | 439577.7 | 929876.3 | 6.0 | 111.5 |
| State's own Total Non Tax Revenue | 433506.4 | 585301.52 | 535140.92 | 1125816.00 | | |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Figure 2.10 : The Composition of State's Own Non-Tax Revenue



Source: Department of Planning-cum-Finance (Finance Division), GoJ

Capital Receipts

The total Capital Receipts of the state which was about Rs 3.6 thousand crore in the year 2011-12 increased to about Rs. 13.8 thousand crore in the year 2015-16 - by almost 3.8 times in five years. It however declined by about 11 per cent to become equal to about Rs. 12.3 thousand crore in the following year. This financial year (2017-18) it has been estimated to further decline by about 18 per cent to become equal to about Rs. 10 thousand crore.

Among the components of the capital receipts of the

state, the borrowing and other liabilities is the most important - constituting more than 99 per cent of the total capital receipts of the state. In the period 2011-12 to 2015-16 the borrowing and other liabilities of the state grew at compound annual rate of 39.5 per cent and the recoveries of loan by a meagre 7.3 per cent. In the year 2016 while the recoveries of loan increased by 23.79 per cent, the borrowing and other liabilities decreased by 10.53 per cent. This financial year also, the recoveries of loan is estimated to increase by 71.65 per cent and the borrowing and other liabilities is estimated to decrease by 18.3 per cent.

Table 2.8: Trend and Composition of Capital Receipts (In Rs. crore)

| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) |
|---|---------|---------|---------|---------|----------|-----------------|-----------------|
| Capital Receipts | 3663.02 | 5732.61 | 4326.43 | 8476.94 | 13798.92 | 12308.75 | 10066.00 |
| % Growth | 6.64 | 56.50% | -24.53% | 95.93% | 62.78% | -10.80% | -18.22 |
| (a) Recoveries of Loans | 23.42 | 43.11 | 23.32 | 33.06 | 31.06 | 38.45 | 66.00 |
| % Growth | -2.90 | 84.07 | -45.90 | 41.77 | -6.05 | 23.79 | 71.65 |
| (b) Other Receipts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| % Growth | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 |
| (c) Borrowing and Other Liabilities | 3639.60 | 5689.50 | 4303.11 | 8443.88 | 13767.86 | 12270.30 | 10000.00 |
| % Growth | 6.71 | 56.32 | -24.37 | 96.23 | 63.05 | -10.53 | -18.30 |
| Share of Recoveries of Loans in the total capita receipts | 0.64 | 0.75 | 0.54 | 0.39 | 0.23 | 0.31 | 0.66 |
| Share of Other Receipts the total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Share of Borrowing and Other Liabilities the total | 99.36 | 99.25 | 99.46 | 99.61 | 99.77 | 99.69 | 99.34 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

The Capital Receipts of the state consist of Public Debt, Loans and Advances and Inter-state settlements and transfer to contingency fund. Public debt accounts for the major part of the capital receipts of the government. More than 99 per cent of the capital receipt of the state government is constituted by this source. Loans and Advances constitute less than 1 per cent of the capital receipts of the state

government. Between 2014-15 and 2016-17, the Public Debt increased at a compound annual rate of 2.9 per cent only while the loans and advances increase at the CAGR of 7.9 per cent. In the current financial year, the public debt is estimated to grow by about 41 per cent and the Loans and Advances by about 71 per cent.

Table 2.9: Consolidated Fund of Jharkhand: Capital Account- Receipts (in Rupees crore)

| Major Head | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) | CAGR (2014-15 to 2016-17) | Growth between 2016-17 (RE) to 2017-18 (BE) |
|----------------------------------|---------|----------|-----------------|-----------------|---------------------------------|---|
| Public Debt | 6690.12 | 13244.65 | 7081.42 | 10000.00 | 2.9 | 41.2 |
| Loans and Advances | 33.06 | 72.23 | 38.46 | 66.00 | 7.9 | 71.6 |
| Inter State Settlement | 0 | | | 0 | | |
| Transfer to contingency fund | 0 | | | 0 | | |
| Total Receipt on Capital Account | 6723.17 | 13316.88 | 7119.87 | 10066.00 | 2.9 | 41.4 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

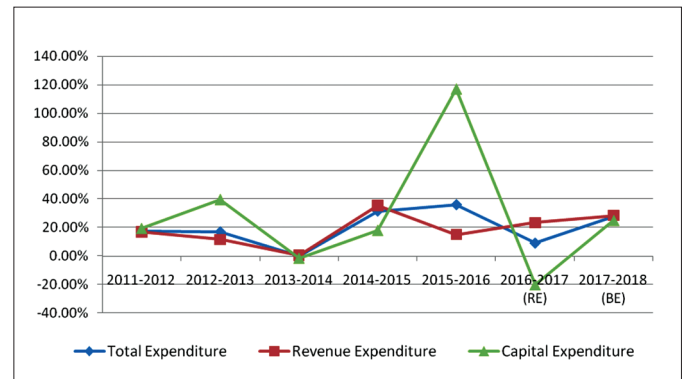
Expenditure

Like the total receipts, the total expenditure of the state has also increased at a higher rate in last three years i.e. between 2013-14 and 2016-17 than the three years' period preceding this period. While the total expenditure increased at a compound annual rate of 8.07 per cent in the period 2011-12 to 2013-14, it increased at the compound annual rate of 21.76 per cent in the period 2014-15 to 2016-17. In the current financial year it is estimated to increase by 27.48 per cent. The expenditure to GSDP ratio, therefore, has also increased from 14.93 per cent in the year 2013-14 to 15.32 per cent in the year 2014-15 and 19.39 per cent in the year 2016-17. In the current financial year it has been estimated to increase to 24.59 per cent of the GSDP.

The revenue expenditure is the major component of the total expenditure. It constituted about 80 per cent of the total expenditure of the state in the year 2011-12. But over the years, the capital expenditure, on an average, has increased at a much faster rate than the revenue expenditure. As a result, the share of capital expenditure, in the total expenditure, has increased. From 19.52 per cent in the year 2011-12, it increased to about 24 per cent in the year 2016-17. In the current financial year it is estimated to be about 23.5 per cent of the total expenditure.

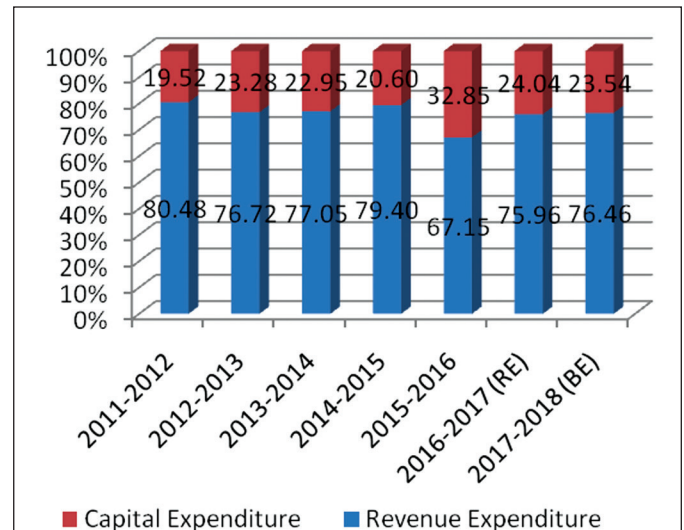
Both the revenue and capital expenditure increased at a much faster rate in the period 2014-15 to 2016-17 the preceding three years' period of 2011-12 to 2013-14. In the period 2014-15 to 2016-17 the revenue expenditure increased at the compound annual rate of 19.08 per cent and the capital expenditure by 31.56 per cent. In the period 2011-12 they grew at 50.74 and 17.19 per cent, respectively. In the current financial year, they are estimated to grow by 28.3 and 24.8 per cent, respectively.

Figure 2.11: Growth Revenue, Capital and Total Expenditure



Source: Department of Planning-cum-Finance (Finance Division), GoJ

Figure 2.12: The percentage share of Revenue and Capital Expenditure in Total Expenditure



Source: Department of Planning-cum-Finance (Finance Division), GoJ

Revenue Expenditure

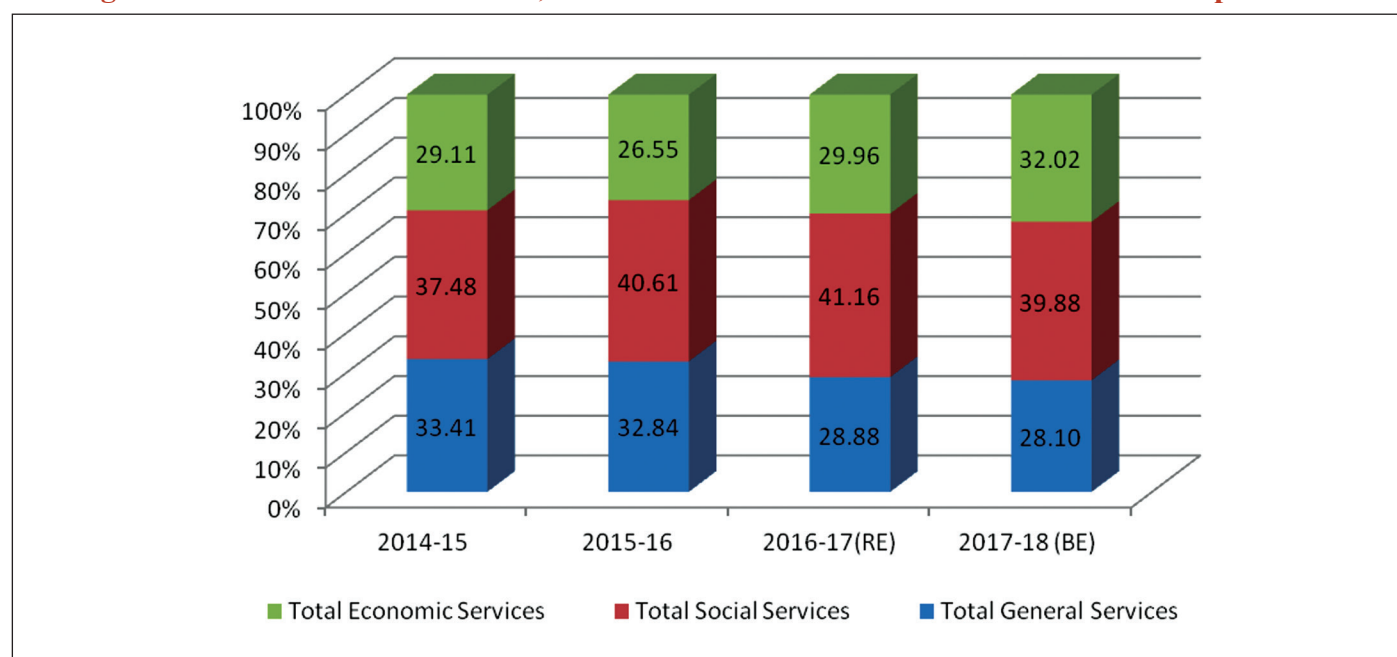
The revenue expenditure broadly consists of Social services, economic services and general services. The largest part of the expenditure is incurred on social services which consist of education, health and family welfare, welfare of SC, ST and OBC's, social welfare and nutrition and labour and labour welfare. About 40 per cent of the revenue expenditure is spent on these above mentioned social services. The rest of the revenue expenditure has almost equally been distributed between general services and

economic services. The former consists of services like organs of state, fiscal services, administrative services, pensions and other miscellaneous services. The latter consists of services like agriculture, rural development, Special Area Programmes, irrigation and flood control, energy, industry and minerals and transport.

In the last three years, while the share of general and economic services in the total revenue expenditure has improved, that of general services has decreased.

This has happened because the expenditure on general and economic services has increased at a much higher rate than the expenditure on general services. While the general and economic services have grown at a compound annual rate of 24.8 and 20.8 per cent, respectively, the general services has grown at compound annual rate of 10.7 per cent only between 2014-15 and 2016-17. In the current financial year, the general, social and economic services are estimated to be growing by 24.9, 24.3 and 37.2 per cent, respectively.

Figure 2.13: The Share of General, Economic and Social Services in the Revenue Expenditure



Source: Department of Planning-cum-Finance (Finance Division), GoJ

Table 2.10: Consolidated Fund of Jharkhand: Revenue Account: Expenditure

(Rs. in Crore)

| Major Head | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) | CAGR (2014-15 to 2016-17) | Growth between 2016-17 (RE) to 2017-18 (BE) |
|---|---------|---------|--------------|--------------|---------------------------|---|
| General Services | | | | | | |
| Organs of State | 543.64 | 419.54 | 462.81 | 569.87 | -7.7 | 23.1 |
| Fiscal Services | 267.50 | 295.82 | 338.03 | 465.31 | 12.4 | 37.7 |
| Interest Payment and Servicing of Debt. | 2929.15 | 3320.08 | 4172.25 | 4697.04 | 19.3 | 12.6 |
| Administrative Services | 3417.84 | 3974.73 | 3912.27 | 4675.40 | 7.0 | 19.5 |

| Major Head | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) | CAGR (2014-15 to 2016-17) | Growth between 2016-17 (RE) to 2017-18 (BE) |
|--|-----------------|-----------------|-----------------|-----------------|---------------------------------|---|
| Pensions and Miscellaneous General Services | 3465.32 | 3992.26 | 4138.40 | 5853.43 | 9.3 | 41.4 |
| Total General Services | 10623.45 | 12002.43 | 13023.76 | 16261.05 | 10.7 | 24.9 |
| Social Services | | | | | | |
| Education, Sports, Art and Culture | 5744.53 | 6542.46 | 7977.83 | 10360.13 | 17.8 | 29.9 |
| Health and Family Welfare | 1358.00 | 1833.38 | 1967.69 | 2663.62 | 20.4 | 35.4 |
| Water Supply, Sanitation, Housing and Urban Development | 1739.48 | 2389.61 | 4103.90 | 4072.64 | 53.6 | -0.8 |
| Information and Broadcasting | 65.95 | 100.83 | 132.11 | 107.55 | 41.5 | -18.6 |
| Welfare of Schedule Caste, Schedule Tribe & Other Backward Class | 859.77 | 1168.55 | 1311.94 | 1635.45 | 23.5 | 24.7 |
| Labour and Labour Welfare | 91.25 | 112.83 | 131.39 | 188.61 | 20.0 | 43.5 |
| Social Welfare and Nutrition | 2034.37 | 2671.85 | 2905.35 | 4014.70 | 19.5 | 38.2 |
| Others | 21.98 | 24.29 | 27.16 | 30.05 | 11.2 | 10.6 |
| Total Social Services | 11915.34 | 14843.81 | 18557.36 | 23072.75 | 24.8 | 24.3 |
| Economic Services | 0.00 | 0.00 | 0.00 | 0.00 | | |
| Agriculture and Allied Activities | 1089.97 | 1474.85 | 2206.17 | 3057.94 | 42.3 | 38.6 |
| Rural Development | 3501.31 | 4172.79 | 7246.95 | 8383.49 | 43.9 | 15.7 |
| Special Areas Programmes | 0.00 | 0.00 | 0.00 | 0.00 | | |
| Irrigation and Flood Control | 330.08 | 320.30 | 322.76 | 483.22 | -1.1 | 49.7 |
| Energy | 2343.92 | 2204.45 | 1754.64 | 4098.32 | -13.5 | 133.6 |
| Industry and Minerals | 237.22 | 321.48 | 316.89 | 533.31 | 15.6 | 68.3 |
| Transport | 835.77 | 347.97 | 445.59 | 529.34 | -27.0 | 18.8 |
| General Economic Services | 917.78 | 864.76 | 1214.91 | 1441.76 | 15.1 | 18.7 |
| Total Economic Services | 9256.05 | 9706.59 | 13507.92 | 18527.37 | 20.8 | 37.2 |
| Grants. In Aid and Contributions | 0.00 | 0.00 | 0.00 | 0.15 | | |
| Total Expenditure on Revenue Accounts | 31794.83 | 36552.83 | 45089.04 | 57861.32 | 19.1 | 28.3 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Committed Expenditure

The expenditure on salary, pension and interest payments which is the committed expenditure of the state has increased at a much slower rate than the total revenue expenditure of the state government. While the total revenue expenditure of the state increased at the compound annual rate (CAGR) of about 17 per cent, the interest payments increased at the rate of 13 per cent, salary at the rate of 8 per cent and the pension at the rate of 12 per cent only. As a result, their share in the total revenue expenditure has decreased, especially since 2013-14. The expenditure on these committed heads accounted for about 51 per cent of the total revenue expenditure of the state in the year 2011-12, increased to about

55 per cent in the year 2013-14, but continued decreasing thereafter. It was about 38 per cent of the total revenue expenditure of the state in the year 2016-17 and is estimated to further decline to 36.6 per cent of the revenue expenditure of the state in the current financial year [2017-18 (BE)]. The share of all the three components of committed expenditure of the state in its revenue expenditure has decreased since 2013-14. The interest payment has decreased from 11.1 per cent of the revenue expenditure in the year 2011-12 to 9.3 per cent in the year 2016-17 and is estimated to further decline to 7.7 per cent in the year 2017-18 (BE). Similarly salary has decreased from 29.5 per cent to 19.7 per cent and pension from 14.8 per cent to 9.2 per cent between 2011-12 and 2016-17.

Table 2.11: Committed Expenditure as a percentage of Revenue Expenditure

| | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 (RE) | 2017-2018 (BE) |
|---|-----------|-----------|-----------|-----------|-----------|----------------|----------------|
| Interest Payments | 10.8 | 10.2 | 11.1 | 9.2 | 9.1 | 9.3 | 7.7 |
| Salary | 29.3 | 27.5 | 29.5 | 23.2 | 22.4 | 19.7 | 18.9 |
| Pension | 10.9 | 12.5 | 14.8 | 10.9 | 10.9 | 9.2 | 10.0 |
| Total committed Expenditure as a % of Revenue Expenditure | 51.0 | 50.3 | 55.5 | 43.3 | 42.4 | 38.1 | 36.6 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Capital Expenditure

The Capital Expenditure of the state consists of capital expenditure on general services, economic services and social services. The Capital account expenditure of Economic services is the major constituent of total Capital Expenditure of the state. It constituted about 78 per cent of it in the year 2014-15 and about 80 per cent of it in the year 2016-17. In the current financial year it is estimated to be about 79 per cent of the total Capital Expenditure of the state. Capital outlay of Transport and capital outlay

of Rural Development are the major constituents of the capital account expenditure of Economic Services. They constituted about 57 and 38 per cent of the capital account expenditure of economic services, respectively, in the year 2014-15. Their share in the capital account expenditure of economic services, however, decreased by the year 2016-17 because of relatively higher growth in the capital outlay of Agriculture and Allied Activities, capital outlay of Irrigation and flood control and Capital Outlay on Industry and minerals.

Figure 2.14: The Share of General, Economic and Social Services in the Capital Expenditure

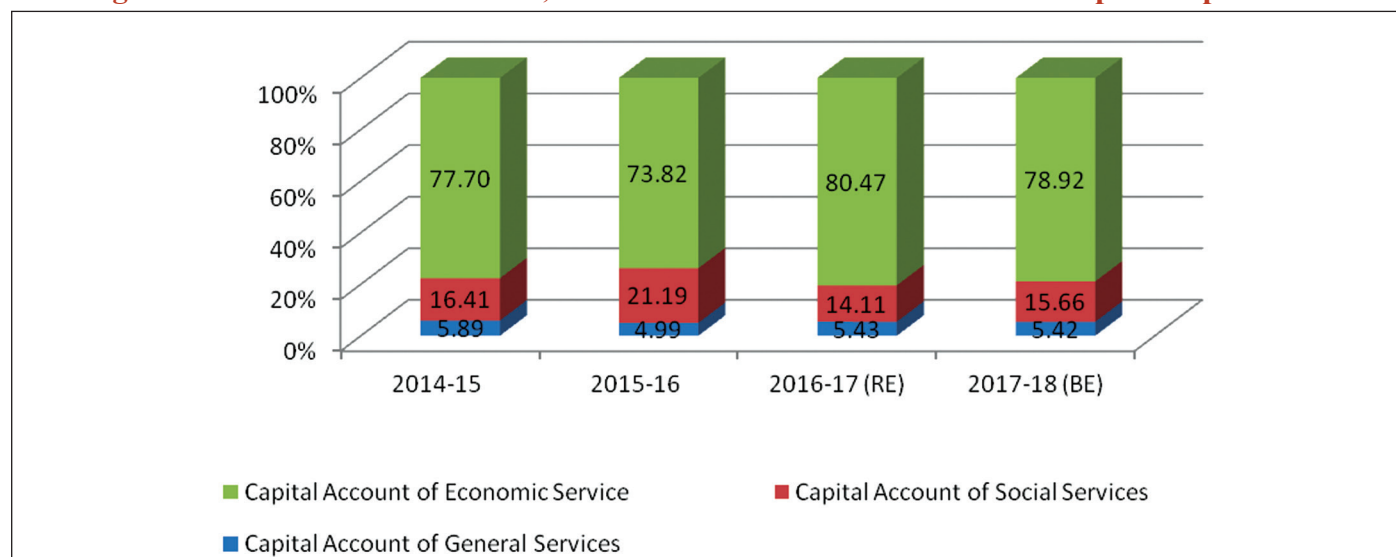


Table 2.12: Consolidated Fund of Jharkhand: Capital Account: Expenditure

(Rs. in Crore)

| Major Head | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) | CAGR (2014-15 to 2016-17) | Growth between 2016-17 (RE) to 2017-18 (BE) |
|--|---------|----------|--------------|--------------|---------------------------|---|
| Capital Account of General Services | 326.33 | 2746.70 | 589.61 | 690.49 | 34.42 | 17.11 |
| Capital Account of Social Services | | | | | | |
| Education, Sport, Art and Culture | 82.97 | 1905.08 | 253.50 | 478.67 | 74.79 | 88.82 |
| Health and Family Welfare | 260.97 | 2356.78 | 511.55 | 453.35 | 40.01 | -11.38 |
| Water Supply, Sanitation, Housing and Urban Development | 188.90 | 4930.10 | 354.72 | 577.12 | 37.03 | 62.70 |
| Information and Broadcasting | 0.45 | 9.85 | 8.85 | 7.40 | 343.47 | -16.38 |
| Welfare of Schedule Caste, Schedule Tribe & Other Backward Class | 172.72 | 1803.38 | 264.04 | 355.45 | 23.64 | 34.62 |
| Social Welfare and Nutrition | 160.02 | 578.78 | 116.96 | 64.00 | -14.51 | -45.28 |
| Others | 43.47 | 75.28 | 22.40 | 59.22 | -28.22 | 164.38 |
| Total Capital Account of Social Services | 909.50 | 11659.24 | 1532.02 | 1995.21 | 29.79 | 30.23 |
| Capital Account of Economic Services | | | | | | |
| Capital outlay of Agriculture and Allied Activities | 93.30 | 937.25 | 569.31 | 694.35 | 147.02 | 21.96 |
| Capital outlay of Rural Development | 1360.22 | 13069.00 | 2074.57 | 2071.05 | 23.50 | -0.17 |
| Capital outlay of Irrigation and flood control | 378.94 | 7501.59 | 1510.91 | 2063.86 | 99.68 | 36.60 |
| Capital Outlay on Energy | 0.00 | 203.23 | 0.00 | 0.00 | | |

| Major Head | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) | CAGR (2014-15 to 2016- 17) | Growth between 2016- 17 (RE) to 2017-18 (BE) |
|---|----------|----------|-----------------|-----------------|-------------------------------------|---|
| Capital Outlay on Industry and minerals | 1.16 | 21.38 | 5.00 | 22.50 | 107.61 | 350.00 |
| Capital Outlay of Transport | 2459.95 | 18494.28 | 4504.99 | 5129.71 | 35.33 | 13.87 |
| Capital Outlay on Sciences | 0.00 | 0.00 | 0.00 | 0.00 | | |
| Capital Outlay on General Economic Services | 13.53 | 401.31 | 74.27 | 71.00 | 134.29 | -4.40 |
| Total Capital Account of Economic Services | 4307.11 | 40628.04 | 8739.05 | 10052.46 | 42.44 | 15.03 |
| Total Capital Expenditure | 554294.2 | 5503398 | 1086068 | 12738.16 | 215.10 | -76.85 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Utilisation of funds by departments

About 50 per cent of the total outlay has been utilised till the end of the third quarter (31st December 2017) of this financial year. With one more quarter left, it seems that a significantly high percentage of the allocation will be utilised in this financial year. The

outlay allotted to different departments and the expenditure incurred by them is shown in the table below. Many of the departments like Transport, Road Construction and Urban Development have utilised almost two thirds (some even more) of the funds allocated to it.

Table 2.13: Outlay and Expenditure for the Financial Year 2017-18 (in Rs Crore) (as on 31.12.2017)

| Sl. No. | Name of the Departments | | Total outlay | Exp. | Exp. (%) |
|---------|---|---|----------------|---------------|--------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Agriculture, Animal Husbandry and Cooperative | Agriculture | 1800.37 | 355.95 | 19.77 |
| | | AH | 377.91 | 120.54 | 31.90 |
| | | Dairy | 324.83 | 62.65 | 19.29 |
| | | Fisheries | 134.74 | 41.75 | 30.99 |
| | | Cooperative | 399.10 | 100.43 | 25.16 |
| | | Sub -Total | 3036.95 | 681.32 | 22.43 |
| 2 | Building Construction | Building Construction | 636.56 | 380.39 | 59.76 |
| 3 | Commercial Taxes | Commercial Taxes | 69.89 | 49.84 | 71.31 |
| 4 | Drinking Water & Sanitation | Drinking Water | 1967.37 | 1466.95 | 74.56 |
| 5 | Energy | Energy | 6000.00 | 3697.20 | 61.62 |
| 6 | Excise & Prohibition | Excise & Prohibition | 37.21 | 14.80 | 39.77 |
| 7 | Food, Public Distribution & Consumer Affairs | Food & Civil Supplies | 1391.19 | 461.48 | 33.17 |
| 8 | Forests, Environment & Climate Change | Forests and Environ. | 656.17 | 320.70 | 48.87 |
| 9 | Health, Medical Edu. and Family Welfare | Health, Medical Edu. and Family Welfare | 3105.97 | 1637.01 | 52.71 |

| Sl. No. | Name of the Departments | | Total outlay | Exp. | Exp. (%) |
|-----------|---|-------------------------------|-----------------|-----------------|--------------|
| 10 | Higher and Technical Edu. | Science & Tech | 752.52 | 442.86 | 58.85 |
| | | Higher Education | 1167.10 | 704.88 | 60.40 |
| | | Sub -Total | 1919.62 | 1147.74 | 59.79 |
| 11 | Home, Jail and Disaster Mgmt. | Home | 4050.90 | 3313.36 | 81.79 |
| | | Disaster Mgmt. | 662.96 | 276.98 | 41.78 |
| | | Sub -Total | 4713.86 | 3590.34 | 76.17 |
| 12 | Industries, Mines & Geology | Industries | 446.21 | 118.76 | 26.62 |
| | | Mines and Geology | 114.99 | 23.99 | 20.86 |
| | | Sub -Total | 561.20 | 142.75 | 25.44 |
| 13 | Information Technology & e-governance | Information Technology | 209.99 | 66.28 | 31.56 |
| 14 | Information & Public Relation | Information & Public Relation | 114.28 | 102.10 | 89.34 |
| 15 | Labour Employment, Training and Skill Dev. | Labour & Employment | 299.63 | 87.32 | 29.14 |
| 16 | Planning-cum-Finance | Planning & Dev. | 370.52 | 167.31 | 45.16 |
| | | Finance | 198.61 | 72.41 | 36.46 |
| | | Sub -Total | 569.13 | 239.72 | 42.12 |
| 17 | Revenue, Registration and Land Reforms | Revenue and Land Reforms | 554.42 | 355.19 | 64.07 |
| 18 | Road Construction | Road Construction | 5464.66 | 3684.69 | 67.43 |
| 19 | Rural Development | Rural Development | 5999.47 | 2761.41 | 46.03 |
| | | Rural Works | 2821.01 | 1386.92 | 49.16 |
| | | Panchayati Raj | 1653.22 | 730.71 | 44.20 |
| | | Sub -Total | 10473.70 | 4879.04 | 46.58 |
| 20 | School Education & Literacy | Human Resource Dev. | 8591.32 | 4341.53 | 50.53 |
| 21 | Tourism, Arts Culture, Sports & Youth Affairs | Tourism | 122.78 | 54.79 | 44.62 |
| | | Arts & Culture | 123.23 | 34.27 | 27.81 |
| | | Sub -Total | 246.01 | 89.06 | 36.20 |
| 22 | Transport | Transport | 164.60 | 138.00 | 83.84 |
| | | Civil Aviation | 129.56 | 93.10 | 71.86 |
| | | Sub -Total | 294.16 | 231.10 | 78.56 |
| 23 | Urban Development & Housing | Urban Development | 2533.44 | 1638.42 | 64.67 |
| | | Housing | 51.01 | 0.60 | 1.18 |
| | | Sub -Total | 2584.45 | 1639.02 | 63.42 |
| 24 | Water Resources | Water Resources | 2553.96 | 1139.14 | 44.60 |
| 25 | Welfare | Welfare | 1995.92 | 666.91 | 33.41 |
| 26 | Women, Child Dev. & Social Security | Social Welfare | 3374.33 | 1462.02 | 43.33 |
| | | Total (A) | 61421.95 | 32573.64 | 53.03 |
| B. | | | | | |
| 27 | Cabinet Secretariat and Vigilance Deptt (Coor Divi) | | 45.84 | 21.93 | 47.84 |

| Sl. No. | Name of the Departments | Total outlay | Exp. | Exp. (%) |
|---------|---|-----------------|-----------------|--------------|
| 28 | Cabinet Secretariat and Vigilance Deptt (Vigilance) | 20.58 | 18.37 | 89.26 |
| 29 | Governor Secretariat | 10.29 | 6.50 | 63.17 |
| 30 | Cabinet Election | 58.44 | 32.08 | 54.89 |
| 31 | Interest Payments | 4467.04 | 2016.12 | 45.13 |
| 32 | Repayment of Loans | 3282.17 | 860.41 | 26.21 |
| 33 | Pension | 5791.43 | 2017.66 | 34.84 |
| 34 | National Savings | 2.52 | 1.71 | 67.86 |
| 35 | Law | 349.19 | 205.98 | 58.99 |
| 36 | Jharkhand High court | 69.45 | 56.89 | 81.92 |
| 37 | Parliamentary Affairs | 1.41 | 0.67 | 47.52 |
| 38 | Legislature Secretariat | 69.52 | 52.67 | 75.76 |
| 39 | Jharkhand Public Se Com | 8.13 | 5.35 | 65.81 |
| 40 | Personnel Adm Reforms Div. | 25.81 | 19.44 | 75.32 |
| 41 | Personnel Adm Reforms (Rajbhasha Division) | 19.72 | 17.06 | 86.51 |
| 42 | Registration Division (Rev) | 23.22 | 15.06 | 64.86 |
| 43 | School Education & Literacy Deptt. (Secretariat) | 6.71 | 4.92 | 73.32 |
| | Sub Total | 14251.47 | 5352.82 | 37.56 |
| | Grand Total (A+B) | 75673.42 | 37926.46 | 50.12 |

Source: Department of Planning cum Finance, GoJ

Liabilities of the state

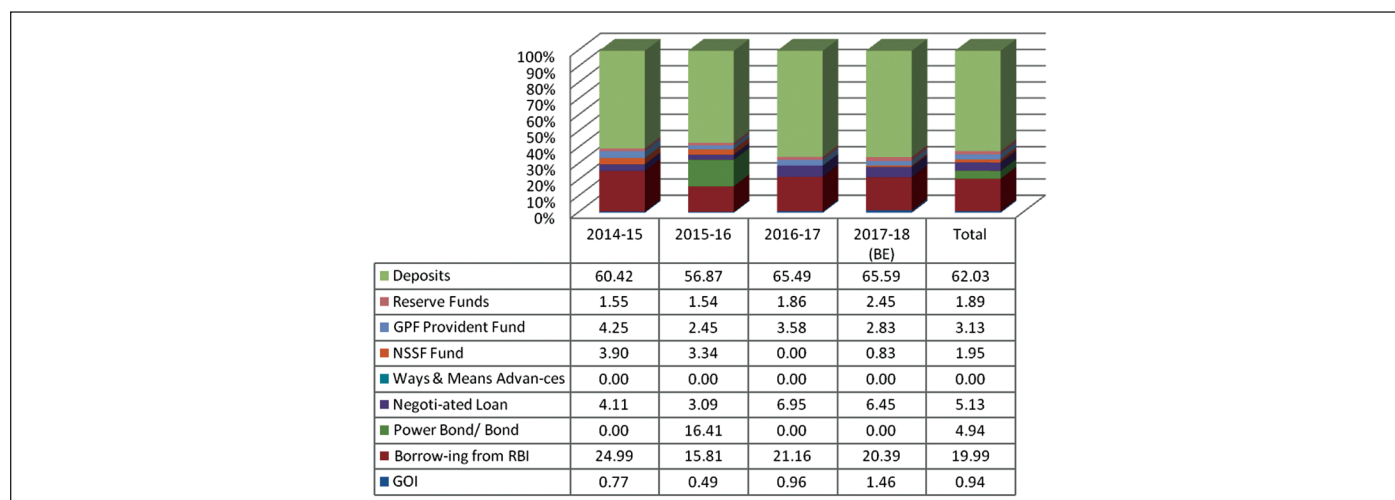
The outstanding liabilities of the state include borrowings from government of India and RBI, negotiated loans, ways & means advances, National Small Saving Fund (NSSF), General Provident Fund (GPF), Reserve Funds, deposits and power bond/ bonds. Year wise debt position of Jharkhand has been shown in the table and figure below. The main sources of borrowing for the state are deposits and borrowing from Reserve Bank of India. The other important sources of borrowing in the recent years are negotiated loans, GPF and provident funds and NSSF.

The composition of Gross Borrowing has seen considerable changes over a period of time. A recent RBI document² regarding outstanding liabilities of

state government indicates a steady decline in net collections under NSSF combined with increasing repayment obligations of the states, that has resulted in a decline in fresh investments by NSSF in state government securities and this is witnessed in Jharkhand as well. Again ways and means advances, to which the state had taken recourse in 2000-01, had practically disappeared subsequently, but have made reappearance since 2011-12, however, were absent during the period 2015-16 to 2016-2017 and for estimated year 2017-18. The share of GPF and Provident Funds in gross borrowings has declined over the years, while that of deposits has increased. Deposits continue to account for the largest share of gross borrowings in the state with a significant increase in its share in the budget estimate of the year 2017-18. The Jharkhand government initiated use of reserve funds since 2008-09.

2 <http://www.rbi.org.in/scripts/PublicationsView.aspx?id=15555>

Figure 2.15 : Components of Gross Borrowing (in percentage)



Source: Department of Planning cum Finance, GoJ

The net borrowings, which is gross borrowings less repayments, has always been less than borrowing ceiling since 2011-12, except for the year 2015-16 and 2016-17, where the net borrowing was Rs 12961 crore as opposed to the borrowing ceiling of Rs 6360 crore and 10298.50 crore against 7993 crore, respectively. This was because of the inclusion of the loans taken under UDAY scheme worth Rs 5553.37 crore, which increased the net borrowing. Since the UDAY loan has to be excluded, the net borrowing comes to be will within the ceiling limit in these two years also. The net borrowing in the current financial year [2017-18 (BE)] is estimated to be Rs. 7644.16 crore as opposed to borrowing ceiling of Rs. 7993 crore.

Debt sustainability indicators helps in designing the borrowing policy of the state as it measures the debt servicing capacity or ability to redeem the debt. Some ratios are quite useful in assessing the trend path of debt sustainability on which the state is moving. A low debt to GSDP ratio indicates that the economy produces and sells goods and services sufficient to pay back its debts without incurring further debt. A level of 35 per cent is sustainable for any economy. Jharkhand has been keeping well within those limits. It was around 24 per cent in the year 2015-16 and moved towards 26 per cent in the revised estimates of the year 2016-17. In the budget estimate for the year 2017-18 it is estimated to be 26.65 per cent of the GSDP at current prices of the state.

Table 2.14: Debt Sustainability and Debt as a percentage of GSDP)

| Year (Actual) | GSDP | Gross Borrowing | % of Gross Borrowing of GSDP | Net Borrowing | % of Net Borrowing of GSDP | Total Debt / GSDP Ratio |
|---------------|--------|-----------------|------------------------------|---------------|----------------------------|-------------------------|
| 2011-12* | 150918 | 8561.46 | 5.67 | 2008.71 | 1.33 | 20.32 |
| 2012-13 | 174724 | 14717.8 | 8.42 | 4205.22 | 2.41 | 19.96 |
| 2013-14 | 188567 | 12840.7 | 6.81 | 2724.86 | 1.45 | 19.94 |
| 2014-15 | 218525 | 19808.6 | 9.06 | 5975.25 | 2.73 | 19.94 |
| 2015-16 | 231294 | 33843.3 | 14.63 | 12961.4 | 5.6 | 24.44 |
| 2016-17 (RE) | 253536 | 24361.5 | 9.61 | 10298.5 | 4.06 | 26.36 |
| 2017-18 (BE) | 279452 | 34330.5 | 12.28 | 7644.16 | 2.74 | 26.65 |

Source: Department of Planning cum Finance, GoJ

Table 2.15: Year Wise Debt Position of Jharkhand

(Rs. in Crore)

| Year (Actual) | GOI | Borrowing from RBI | Power Bond/ | Negotiated Loan | Ways & Means Advances | NSSF Fund | GPF Provident Fund | Reserve Funds | Deposits | Gross Borrowing | Repayment (-) | Net Borrowing | Borrowing Ceiling | Cumulative Debt |
|----------------------|---------------|--------------------|----------------|-----------------|-----------------------|--------------|--------------------|---------------|---------------|-----------------|---------------|----------------|-------------------|-----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | (2 to 10) = 11 | 12 | 13 | 14 | 15 |
| 15.11.2010 (Balance) | | | | | | | | | | | | | | |
| 2011-12* | 32.53 | 1254.05 | 0 | 873.98 | 229.19 | 281.48 | 613.38 | 138.58 | 5138.27 | 8561.46 | 6552.75 | 2008.71 | 4527.53 | 30663.77 |
| 2012-13 | 238.65 | 3600 | 0 | 770.33 | 368.79 | 221.23 | 667.69 | 279.81 | 8571.31 | 14717.8 | 10512.6 | 4205.22 | 4527.53 | 34868.99 |
| 2013-14 | 106.15 | 2950 | 0 | 1031.56 | 315.58 | 299.62 | 760.2 | 293.19 | 7084.37 | 12840.7 | 10115.8 | 2724.86 | 4527.53 | 37593.84 |
| 2014-15 | 153.21 | 4950 | 0 | 814.23 | 0 | 772.68 | 842.56 | 307.85 | 11968 | 19808.6 | 13833.3 | 5975.25 | 6393 | 43569.09 |
| 2015-16 | 165.02 | 5350 | 5553.37 | 1044.71 | 0 | 1131.6 | 830.1 | 521.68 | 19246.9 | 33843.3 | 20881.9 | 12961.4 | 6360 | 56530.49 |
| 2016-17 (RE) | 234.29 | 5154 | 0 | 1693.13 | 0 | 0 | 872.6 | 452.88 | 15954.6 | 24361.5 | 14063 | 10298.5 | 7993 | 66828.99 |
| 2017-18 (BE) | 500 | 7000 | 0 | 2215 | 0 | 285 | 971.21 | 840.37 | 22518.9 | 34330.5 | 26686.3 | 7644.16 | 7993 | 74473.15 |
| Total | 3515.7 | 38132.6 | 5553.37 | 13680 | 1528.2 | 13169 | 10070 | 3337.2 | 113363 | 202349 | 133838 | 1490.04 | | 28655.1 |

Note : * Rs. 5553.37 crore was taken under UDAY Scheme which is not to be reckoned against the normal permissible net borrowing ceiling for 2015-16.

Source: Department of Planning cum Finance, GoJ

Deficit position of the state

The Fiscal Deficit of Jharkhand has been in compliance with the FRBM target of 3.5 per cent over the years, except for the year 2015-16 and 2016-17, when it had exceeded the limit because of borrowing under UDAY scheme. But since the borrowings under UDAY scheme are not to be reckoned against the normal permissible net borrowing ceiling of the state, the fiscal deficit of these two years are also within the limits of FRBM targets. The budget estimates of 2017-18 show a decline in the fiscal deficit to 2.49 per cent of GSDP; again well within the limits of FRBM targets.

The Revenue Deficit is mostly in the negative since

2011-12 which shows that the state mostly has revenue surplus. The primary and fiscal deficit had spiked in the year 2015-16, and remained high in the year 2016-17 (because of borrowing under UDAY scheme) but they are estimated to decline in the current financial year, 2017-18 (BE).

Figure 2.16 : The trend in Revenue, Fiscal and Primary Deficit as a percentage of GSDP

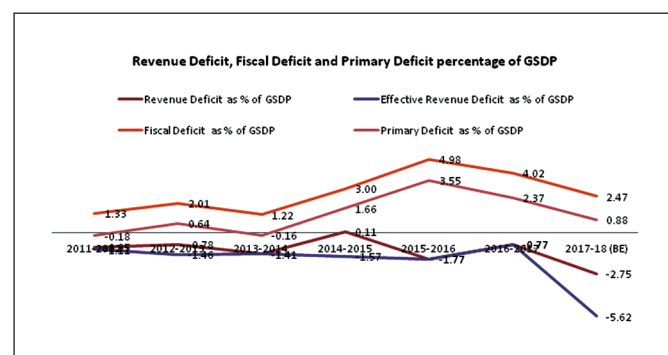


Table 2.16: Deficit position of Jharkhand (2011-12 to 2016-17 in Rs. crore)

| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) |
|---|----------|----------|---------|----------|----------|--------------|--------------|
| Revenue Deficit | -1427.87 | -1369.68 | -2664.9 | 230.34 | -4085.52 | -1964.89 | -7746.1 |
| Revenue Deficit as % of GSDP | -0.95 | -0.78 | -1.41 | 0.11 | -1.77 | -0.77 | -2.77 |
| Effective Revenue Deficit | -1672.64 | -2544.06 | -2664.9 | -3421.75 | -4085.52 | -1964.89 | -15795.32 |
| Effective Revenue Deficit as % of GSDP | -1.11 | -1.46 | -1.41 | -1.57 | -1.77 | -0.77 | -5.65 |
| Fiscal Deficit | 2000.58 | 3506.44 | 2306.19 | 6564 | 11521.93 | 10192.41 | 6947.83 |
| Fiscal Deficit as % of GSDP | 1.33 | 2.01 | 1.22 | 3.00 | 4.98 | 4.02 | 2.49 |
| Primary Deficit | -266.5 | 1115.19 | -308.25 | 3634.85 | 8201.85 | 6020.16 | 2480.78 |
| Primary Deficit as % of GSDP | -0.18 | 0.64 | -0.16 | 1.66 | 3.55 | 2.37 | 0.89 |
| GSDP | 150918 | 174724 | 188567 | 218525 | 231294 | 253536 | 279452 |

Source: Department of Planning-cum-Finance (Finance Division), GoJ

*The loan amount of Rs 5553.57 crore taken under the UDAY scheme in FY 2015-16 has been taken into calculation. But as per the extant guidelines, the borrowings under UDAY are not to be reconed against the normal permissible net borrowing ceiling of the state.

Conclusion

The fiscal position of Jharkhand has strengthened in the last three years. Both the total receipts (non-debt) and total expenditure, as a percentage of the GSDP of the state, has increased since 2014-15. The Total Receipts of the state have increased at a compound annual growth rate (CAGR) of 22.10 per cent between 2014-15 and 2016-17. It is estimated to grow by 27.48 per cent in the year 2017-18 (BE). The total expenditure of the state has also increased at a higher rate in last three years i.e. between 2013-14 and 2016-17 than the three years' period preceding this period. It increased at the compound

annual rate of 21.76 per cent in the period 2014-15 to 2016-17. In the current financial year it is estimated to increase by 27.48 per cent. The expenditure to GSDP ratio, therefore, has also increased from 14.93 per cent in the year 2013-14 to 15.32 per cent in the year 2014-15 and 19.39 per cent in the year 2016-17. In the current financial year it has been estimated to increase to 24.59 per cent of the GSDP.

The net borrowings of the state have always been less than borrowing ceiling. The state has complied with the FRBM targets and its public debt has remained well within the sustainability limits

III

INSTITUTIONAL FINANCE



A sound financial infrastructure is the key requirement for the progress of an economy. In this context, the role of financial institutions becomes extremely important. An effective rural financial system is even more important for a state like Jharkhand where approximately 3/4th population live in rural areas and more than one-third population are still below poverty line. Providing them with access to the financial services would help them ease their consumption. A number of initiatives have been taken by the State Government in this direction. The deposit growth has been 12.52 per cent from September 2016 to September 2017. The credit growth has been 5.76 per cent in the same period. The CD ratio is presently at 58.78 per cent which is less than that of last year (61.6 per cent) but regular efforts are being made by all banks to bring the CD ratio above that of the national average of 60 per cent. The PSA, Agricultural credit and Credit to weaker section stands at 51.82 per cent, 15.76 per cent and 17.53 per cent, respectively. The advances to women and minority community stands at 12.63 per cent (5 per cent above the National average) and 12.90 per cent, respectively. To enhance the financial safety nets of the poor and under-privileged, the central government has also announced social security schemes like – Pradhan Mantri Jeevan Jyoti Yojana (PMJJBY), Pradhan Mantri Suraksha Beema Yojana (PMSBY), Atal Pension Yojana (APY), Postal savings schemes and regional rural banks have

expanded their reach to some extent. There has also been an increase in the banking network. The number of bank offices of all Scheduled Commercial Banks in Jharkhand has increased to 3003 in September 2017 from 2697 on September 2014.

This chapter assesses the performance of the institutional finance in the recent years in the state of Jharkhand.

Performance of the Banking Sector in Jharkhand

Deposit and Credit Situation of Banks

The deposit and credit, which are the core functions of the banking business, have expanded gradually in Jharkhand (Table 3.1). There has been an increase in deposits during the past one year by about 12.5 per cent between 2016 and 2017 (i.e. from Rs.1,68,852.39 crore as in the end of September 2016 to Rs.1,89,992.80 crore as at September-end 2017). Total credit has increased marginally by 3.3 per cent. CD ratio of the scheduled commercial banks has declined from 46.11 per cent as at September end 2016 to 43.56 per cent as at September-end 2017. For the private banks, the increase has been around 5 per cent. On the other hand, the CD ratio of RRBs has decreased from 38.83 per cent to 35.90 during the same period. The CD ratio of cooperative banks has also decreased from 21.21 per cent to 13.19 per cent over the same period. (Table 3.2)

Table: 3.1: Key Indicators of Banking in Jharkhand (as at September-end)

(in Rs.crore)

| Sl. No | Key Indicators | 2014 | 2015 | 2016 | 2017 |
|--------|--|-----------------|-----------------|-----------------|-----------------|
| 1 | Deposit | 128163.93 | 146956.73 | 168852.39 | 189992.80 |
| 2 | Credit | 61540.98 | 68449.93 | 77152.36 | 81599.81 |
| 3 | Credit as per place of utilization & RIDF | 11238.65 | 20773.20 | 26120.12 | 30084.34 |
| 4 | Total Credit | 72779.63 | 89223.13 | 103272.48 | 111684.15 |
| 5 | CD Ratio (%) | 56.78 | 60.71 | 61.16 | 58.78 |
| 6 | Priority Sector Advances (PSA) | 31047.89 | 34853.71 | 42316.26 | 42282.95 |
| 7 | Share of PSA to Total Advances (%) | 50.45 | 50.91 | 54.84 | 51.82 |
| 8 | Agricultural Advances | 10848.88 | 12198.61 | 13164.08 | 12860.29 |
| 9 | Share of Agricultural Advances to Total Advances (%) | 17.62 | 17.82 | 17.06 | 15.76 |
| 10 | i. Micro & Small Enterprises Advance | 11665.60 | 13476.32 | 19170.47 | 19582.90 |
| | ii. Share of Micro & Small Enterprises to Total Advances (%) | 18.95 | 19.68 | 24.84 | 24.00 |
| 11 | Advances to Weaker Section | 10305.35 | 13644.32 | 14916.92 | 14308.20 |
| 12 | Share of Weaker Section Advances to Total Advances (%) | 16.75 | 19.93 | 19.33 | 17.53 |
| 13 | DRI Advances | 27.88 | 34.23 | 48.40 | 36.72 |
| 14 | Share of DRI Advances to Total Advances of Last March (%) | 0.04 | 0.05 | 0.06 | 0.05 |
| 15 | Advances to Women | 11834.09 | 13958.90 | 12707.59 | 10309.18 |
| 16 | Share of advances to women in Total advances (ANBC) (%) | 19.23 | 20.39 | 16.47 | 12.63 |
| 17 | Advances to Minorities | 4446.21 | 6184.68 | 5600.30 | 5454.28 |
| 18 | Share of Advances to Minorities under PSA (%) | 14.32 | 17.74 | 13.23 | 12.90 |
| 19 | N.P.A Percentage to Gross-Credit | 3639.21 5.91 | 4253.88 6.21 | 4532.51 5.87 | 4929.06 6.04 |
| 20 | Branch Net-Work (in no.) - Rural | 1373 | 1449 | 1493 | 1497 |
| | Semi-Urban | 691 | 724 | 759 | 780 |
| | Urban | 633 | 673 | 701 | 726 |
| | Total | 2697 | 2846 | 2953 | 3003 |
| 21 | ATM installed in Jharkhand | 2485 | 2665 | 3054 | 3507 |

Source: 61st SLBC, Jharkhand

According to latest available data, CD ratio has declined from 61.16 per cent in 2016 to 58.78 per cent in 2017 (Figure 3.1). In spite of various

measures taken by the Government, the CD ratio is in decreasing trend since 2015 which is clearly reflected in the Table 3.2 and Figure 3.1 respectively.

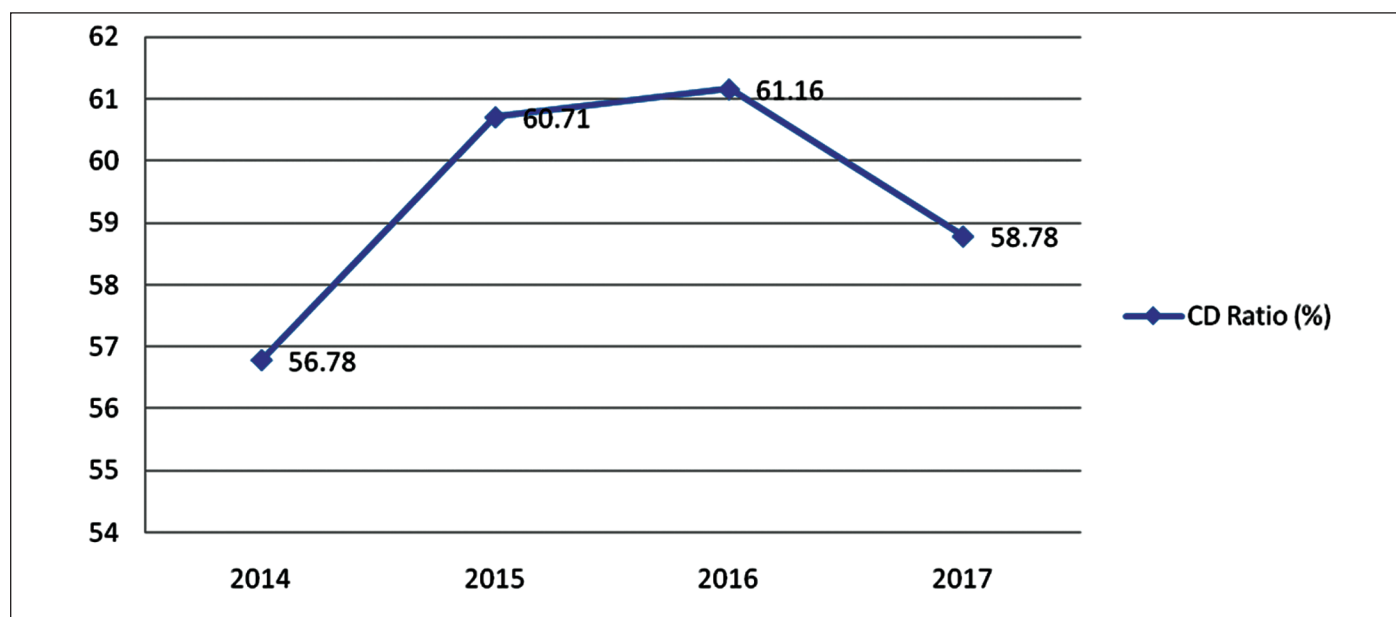
Table 3.2: Bank Category-wise Trend in CD Ratio in Jharkhand (%)

| Sl. No | Banks | Sep-15 | Sep-16 | Sep-17 |
|--------|---------------------|--------|--------|--------|
| 1 | Commercial Banks | 46.93 | 46.11 | 43.56 |
| 1.1 | Public Sector Banks | 44.80 | 43.85 | 40.50 |

| Sl. No | Banks | Sep-15 | Sep-16 | Sep-17 |
|--------|----------------------|--------|--------|--------|
| 1.2 | Private Sector Banks | 76.55 | 77.64 | 83.31 |
| 2 | Regional Rural Banks | 41.53 | 38.83 | 35.90 |
| 3 | Cooperative Banks | 23.08 | 21.21 | 13.19 |
| 4 | Total | 46.58 | 45.69 | 42.95 |

Source: 61st SLBC, Jharkhand

Figure 3.1: Trend in CD Ratio in Jharkhand (as at March-end)



Source: 61st SLBC, Jharkhand

Loans and Advances

The share of priority sector advances (PSA) to total advances decreased from 54.84 as at end-September 2016 to 51.82 as at end-September 2017 and the PSA also decreased marginally during the same period. The share of agricultural advances to total advances has decreased from 17.06 per cent to 15.76 per cent during the same period (Table 3.1). Advances to weaker section as well as advances to women have also decreased during this period.

Recovery of Loans and Advances

The recovery position of bank advances in the State

in case of priority sector advances has improved during the past two years as the recovery has increased from Rs. 4,79,113.84 lakhs in 2016 to Rs 5,40,557.81 lakhs in 2017 (till Sept 2017). Recovery as a per cent of demand has marginally increased from 48.51 per cent in 2016 to 48.57 per cent in 2017. As in earlier years, the recovery positions of the Government sponsored schemes have remained very low as compared to priority sector advances. Measures need to be taken to improve the recovery position of bank advances in the State.

Non-Performing Assets (NPAs)

Non-performing Assets (NPAs), another indicator of

the health of the banking sector, recorded an increase from Rs.4,532.51 crore at September-end 2016 to Rs. 4,929.06 crore as at September-end 2017. The ratio of NPA to the total advances increased from 5.87 to 6.04 per cent during the same period.

In the priority sector advances, the share of Micro and Small Enterprise (MSE) in total NPAs constituted around 50.70 per cent followed by the agricultural sector (19.09 per cent) advances to non-priority sector (NPS) around 15.37 per cent of the total NPAs (as at September-end 2017) (Figure 3.2 a). Bank wise NPAs data shows that Bank of India has the highest

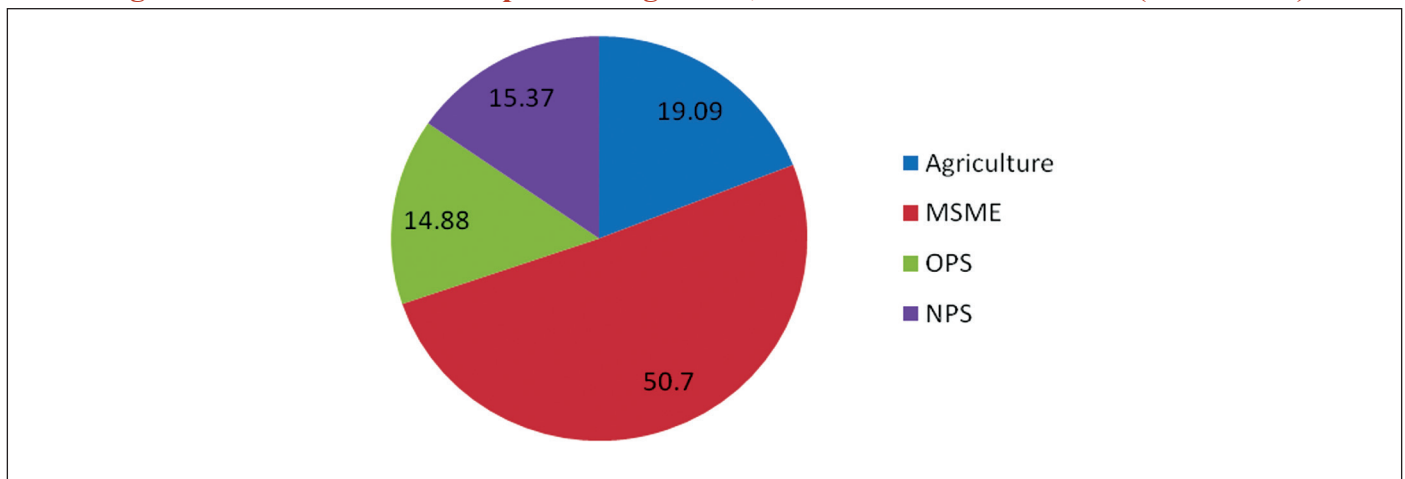
amount of NPAs (Rs. 1,193.10 crores), followed by Punjab National Bank (Rs.1,076.63 crores). Sector wise NPA status is shown in Table 3.2 b and Figure 3.2 b respectively.

Table 3.2 a: Sector wise Status of Gross and Net NPAs (Rs in crores)

| Sector | Gross NPA | Net NPA |
|-------------|-----------|---------|
| Agriculture | 940.99 | 575.64 |
| MSME | 2499.18 | 1249.94 |
| OPS | 733.47 | 457.73 |
| NPS | 755.42 | 354.35 |
| Total | 4929.06 | 2637.66 |

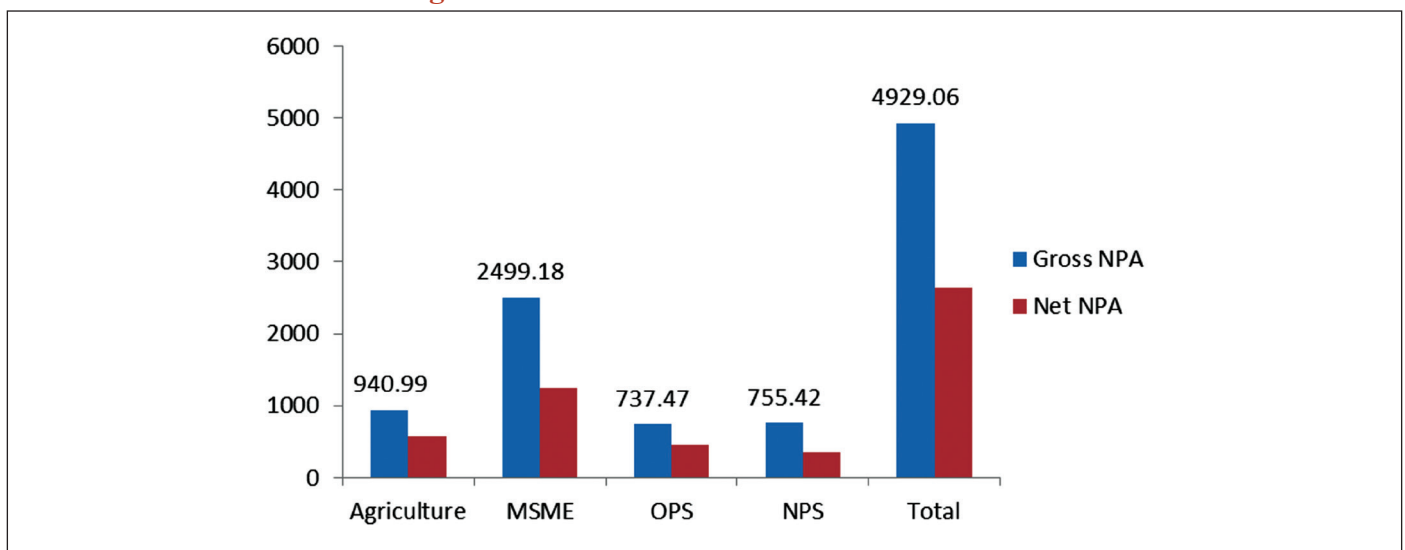
Source: 61st SLBC, Jharkhand

Figure 3.2 a: Position of Non-performing Assets, Sector-wise Share of NPAs (Gross NPA)



Source: 61st SLBC, Jharkhand

Figure 3.2 b: Sector wise Gross and Net NPA



Source: 61st SLBC, Jharkhand

Table 3.2 b: Sector wise NPAs

(Amount in Rs. Lakhs)

| Sector | Account | Amount |
|-------------|---------|--------|
| Agriculture | 191945 | 94099 |
| MSME | 95838 | 249918 |
| OPS | 27731 | 73347 |
| Total PS | 315514 | 417363 |
| NPS | 37135 | 75542 |
| Total NPS | 352649 | 492906 |

Source: 61st SLBC, Jharkhand

Performance of Banks under Annual Credit Plan (ACP)

As per latest SLBC Report, Annual Credit Plan (ACP) of the banks in the financial year 2017-18 (till September 30, 2017) shows that commercial banks has achieved only 29.5 per cent of the ACP target in agriculture as compared to 85.1 per cent in micro, small and medium enterprises (MSME). RRBs and cooperative banks, in particular, have performed dismally in this regard. RRBs have achieved only 19.4 per cent and 6.3 per cent of its ACP target in agriculture and MSE respectively, while cooperative banks have achieved 0.00 per cent of its ACP target for the both the sectors respectively during the financial year 2017-18. (Table 3.3)

Table 3.3: Achievement under Annual Credit Plan (as on September 30, 2017) (Rs in crores)

| Banks | Agriculture | | MSME | | Non Priority Sector | | Total | |
|--------------------|-------------|-------------|---------|-------------|---------------------|-------------|----------|-------------|
| | Target | Achievement | Target | Achievement | Target | Achievement | Target | Achievement |
| Commercial Banks | 6004.66 | 1774.27 | 6463.71 | 5502.77 | 8047.11 | 4197.99 | 20515.48 | 11475.03 |
| RRBs | 1401.71 | 272.05 | 732.72 | 45.97 | 456.29 | 53.43 | 2590.72 | 371.45 |
| Co-operative Banks | 276.01 | 0.00 | 133.09 | 0.00 | 78.75 | 0.00 | 487.85 | 0.00 |
| Total | 7682.38 | 2046.32 | 7329.52 | 5548.74 | 8582.15 | 4251.42 | 23594.05 | 11846.48 |

Source: 61st SLBC, Jharkhand

Low disbursement of loans by RRBs in agriculture and total priority sector advances is a cause of concern, as these segments are considered to be their thrust and focus area of operation. The cooperative banks have performed dismally in all the sectors. The sanctioning credit to MSE and NPS by commercial banks has been found to be satisfactory, but there is further scope of gearing up credit in MSE sector. The non availability of current land records, stringent acts on land mortgage, limited period availability of crop insurance and that too for selective crops only coupled with security environment and recovery

climate are acting as a deterrent for disbursement in the agriculture sector. Digitization of land records is progressing well. The digitization of land records would lead to better utilization of land as collaterals and help in greater disbursement of credit to the agriculture sector.

Flow of Credit to Different Sectors

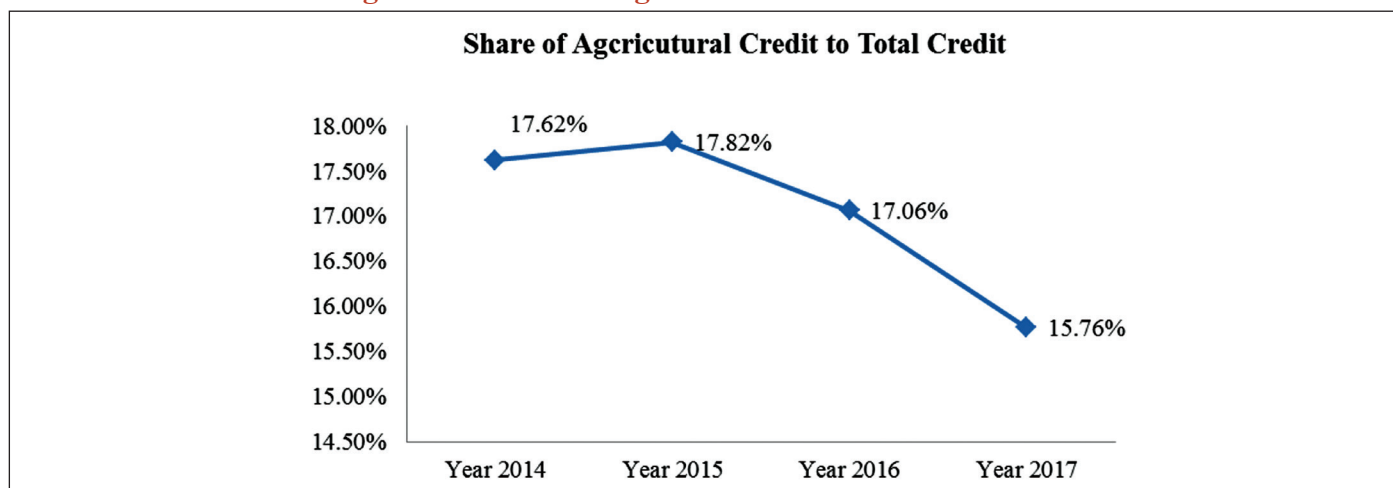
Agriculture

The share of Agricultural credit to the total credit was 17.62 per cent in 2014 which increased to 17.82 per cent in 2015 and has been showing a downward

trend since then. The figure was recorded as 15.76 per cent in 2017. Agricultural credit of all banks in the state is Rs.12,860.29 crore which constitutes

15.76 per cent of the gross credit. This is 2.24 per cent less than the national benchmark of 18 per cent. (Figure 3.3)

Figure 3.3: Share of Agricultural Credit to total Credit



Source: 61st SLBC, Jharkhand

As shown in the Table 3.4, the total disbursement amount in 2017-2018 stands at Rs 913.83 and the total accounts stands at 253061. There has been a

reduction in both the disbursement amount and accounts when compared to 2016 (Amount – 936.09, Accounts – 345278). The outstanding amount in KCC accounts stands at 6174.90 and the accounts stands at 1638391 as on 30.09.2017.

Table 3.4: Status of KCC in Jharkhand (Amount in Crores)

| Type Of Banks | | Disbursement during 2017-18 | | Outstanding in KCC accounts | |
|---------------|---------------|-----------------------------|---------------|-----------------------------|----------------|
| | | A/C | Amt | As of 30.09.2017 | |
| | | A/C | Amt | A/C | Amt |
| PSB | PSB | 159590 | 589.78 | 1237528 | 4741.12 |
| Pvt.Banks | Private banks | 9537 | 53.22 | 17099 | 115.37 |
| Total | Total | 169127 | 643.00 | 1254627 | 4856.49 |
| RRB | RRB | 83439 | 269.41 | 364664 | 1294.48 |
| Co-op Banks | Co-op Banks | 495 | 1.42 | 19100 | 23.93 |
| Total | Total | 253061 | 913.83 | 1638391 | 6174.90 |

Source: 61st SLBC, Jharkhand

The tables (3.4 a and 3.4 b) below show us the bank wise and district wise issuance of KCC and issuance of Rupay Cards in KCC account. State bank of India has issued the highest number of Kisan Credit Cards among all the banks. State Bank of India is also the highest in converting KCC cards to Rupay cards. 9

banks have not issued any KCC cards. ICICI Bank which is the leading private bank in the country has not issued Rupay Cards in the KCC accounts. Overall the total KCC issued in the State is 1638391, and number of KCC converted to Rupay Cards is 1133875. Rupay Debit card issued stands at 97.39

per cent (Table 3.4 a). In a district wise comparison, the highest number of KCC has been issued in

Ranchi district while the lowest number of KCC has been issued in Simdega district (Table 3.4 b).

Table 3.4 a: Statement on Issue of Rupay Cards in KCC Account – Bank wise (As on 30.09.2017)

| Sl. No | Name of the Bank | No of KCC Issued | No of KCC converted to Rupay Debit cards |
|--------|----------------------------|------------------|--|
| 1 | Allahabad Bank | 136955 | 108102 |
| 2 | Bank of India | 359360 | 183136 |
| 3 | Bank Of Baroda | 13122 | 11984 |
| 4 | Canara Bank | 16993 | 6092 |
| 5 | Central Bank of India | 43812 | 18104 |
| 6 | Corporation Bank | 901 | 895 |
| 7 | Federal Bank | 67 | 0 |
| 8 | Indian Overseas Bank | 38 | 23 |
| 9 | Jharkhand Gramin Bank | 136804 | 136837 |
| 10 | Oriental Bank Of Commerce | 1594 | 813 |
| 11 | State Bank of India | 542869 | 378476 |
| 12 | Syndicate Bank | 6134 | 5574 |
| 13 | UCO Bank | 13960 | 286 |
| 14 | Union Bank of India | 36350 | 31560 |
| 15 | United Bank | 30193 | 20435 |
| 16 | Vananchal Gramin Bank | 227860 | 213211 |
| 17 | Vijaya bank | 346 | 346 |
| 18 | Indian Bank | 1327 | 454 |
| 19 | Dena Bank | 1441 | 884 |
| 20 | HDFC Bank LTD | 16865 | 0 |
| 21 | ICICI Bank | 133 | 0 |
| 22 | IDBI Bank | 7947 | 1762 |
| 23 | Punjab National Bank | 24350 | 14489 |
| 24 | Andhra Bank | 453 | 406 |
| 25 | Punjab and Sindh Bank | 10 | 0 |
| 26 | Bank of Maharashtra | 3 | 6 |
| 27 | Karnataka Bank Ltd | 0 | 0 |
| 28 | Axis Bank | 0 | 0 |
| 29 | Indus Ind Bank | 0 | 0 |
| 30 | Jammu and Kashmir Bank Ltd | 0 | 0 |
| 31 | YES Bank | 0 | 0 |
| 32 | Kotak Mahindra Bank | 34 | 0 |
| 33 | South Indian Bank | 0 | 0 |
| 34 | Laxmi Vilash Bank | 0 | 0 |
| 35 | Karur Vasya Bank | 0 | 0 |
| 36 | Bandhan Bank | 0 | 0 |
| 37 | Cooperative Bank | 19100 | 0 |
| | Total | 1638391 | 1133875 |

Source: 61st SLBC, Jharkhand

**Table 3.4 b: Statement on Issue of Rupay Cards in KCC Account – District Wise
(As on 30.09.2017)**

| S. no | Name of the Bank | No of KCC Issued | No of KCC converted to Rupay Debit cards |
|-------|------------------|------------------|--|
| 1 | BOKARO | 73934 | 52430 |
| 2 | CHATRA | 68195 | 49975 |
| 3 | DEOGHAR | 91711 | 69563 |
| 4 | DHANBAD | 79553 | 48023 |
| 5 | DUMKA | 78584 | 52225 |
| 6 | E. SINGHBHUM | 75793 | 36601 |
| 7 | GARHWA | 84752 | 65831 |
| 8 | GIRIDIH | 85411 | 61402 |
| 9 | GODDA | 65120 | 48493 |
| 10 | GUMLA | 69435 | 44352 |
| 11 | HAZARIBAGH | 108325 | 71948 |
| 12 | JAMTARA | 55390 | 41050 |
| 13 | KHUNTI | 29306 | 27134 |
| 14 | KODERMA | 42940 | 29568 |
| 15 | LATEHAR | 59313 | 48265 |
| 16 | LOHERDAGA | 38911 | 24162 |
| 17 | PAKUR | 40105 | 27964 |
| 18 | PALAMU | 131249 | 106494 |
| 19 | RAMGARH | 43597 | 33129 |
| 20 | RANCHI | 134331 | 72610 |
| 21 | SAHIBGANJ | 52253 | 42611 |
| 22 | SARAIKELA | 44598 | 21078 |
| 23 | SIMDEGA | 26607 | 21385 |
| 24 | W.SINGHBHUM | 62978 | 37582 |
| | Total | 1638391 | 1133875 |

Source: 61st SLBC, Jharkhand

Micro and Small Enterprise (MSE) and Medium Enterprises

Share of micro sector credit in total MSE was 55.69 per cent as on September 30, 2017, against a benchmark of 60 per cent as per Guidelines of the Reserve Bank of India. The financing to MSE shows

that the credit outstanding position has decreased from Rs. 21,111.7 crore as at September-end 2016 to Rs. 21,002.3 crore as at September-end 2017 (Table 3.5). The credit outstanding position of the medium enterprises has reduced from Rs.1,941.22 crore to Rs.1,419.47 crore over the same period.

Table 3.5: Financing to Micro & Small Enterprises (MSE) (Priority Sector)

| SI No | Particular | Outstanding Position as at the end of | | |
|------------------------------------|--|--|--|----------|
| | | | Sept. 2016 | Sep 2017 |
| Micro and Small Enterprises | | | | |
| 1 | Micro Enterprises | Accounts | 388 | 1832 |
| | | Amount | 10620.15 | 11394.39 |
| 2 | Small Enterprises | Accounts | 91 | 45 |
| | | Amount | 8550.33 | 8188.51 |
| 3 | Total Micro and Small Enterprises (MSE Sector) | Accounts | 479 | 1877 |
| | | Amount | 19170.48 | 19582.90 |
| Medium Enterprises | | | | |
| 4 | Total of Medium Enterprises | Accounts | 31 | 6 |
| | | Amount | 1941.22 | 1419.47 |
| MSME | | | | |
| Total MSME | | Accounts | 510 | 1884 |
| (Priority Sector Advances) | | Amount | 21111.70 | 21002.38 |
| 5 | a. | Share of Credit to Micro Enterprises in total credit to MSE sector | Per cent share of amounts (Stipulation: 60%) | 55.40% |
| | b. | Share to credit to MSE sector in NBC/ANBC | Per cent share of amount | 24.84% |

Source: 61st SLBC, Jharkhand

Note: Accounts in thousands, Amount in crores

Table 3.6: Credit Flow to Micro, Small, Medium and MSME Enterprises (Amount in Lakhs)

| | | Sep-17 |
|--------|----------|-----------|
| Micro | Accounts | 1832348 |
| | Amount | 1139439 |
| Small | Accounts | 45164 |
| | Amount | 818851.59 |
| Medium | Accounts | 6730 |
| | Amount | 141947.36 |
| MSME | Accounts | 1884242 |
| | Amount | 2100238.2 |

Source: 61st SLBC, Jharkhand

Since Jharkhand is resource rich and has a large labor force, the MSME sector of the state has a huge potential to develop. The State is rich in mineral resources like copper, coal, aluminum, iron etc. The proper ancillary sector to these industries needs to be

developed. This segment should be further exploited for growth of MSME in the State. Export lines of credit have mostly been taken from Authorized Dealer (AD) bank branches in foreign exchange located at Kolkata, Mumbai etc, export credit off-take from local bank branches remains abysmal. Adequate infrastructural support (viz. establishment of DGFT office to give local IEC number to exporters, EXIM bank or ECGC offices etc.) needs to be provided for MSMEs for them to avail export finance from local ADs. Sick MSME units which are considered viable needs handholding support in the form of rehabilitation and revival support from banks as also from Govt. Cluster financing based on Ganguly Committee recommendations of about 90 clusters identified by Government/UNIDO may also lead to better credit flow to MSME sector.

Collateral Free Loan Up to Rs.1.00 Crore in MSME

Lack of sufficient collateral is seen as a major roadblock for the micro/small enterprises units (MSEs) in obtaining credit from the banking system. Keeping this in view, the Government of India and SIDBI had set up “Credit Guarantee Fund Trust for

Micro and Small Enterprises” (CGTMSE). On the basis of CGTMSE guidelines, MSE loans up to Rs. 2 crores (earlier it was Rs. 1 crore, has been enhanced to Rs 2 crores from January 9, 2017) are eligible for a credit guarantee cover and cover is extended to those entrepreneurs who have viable Projects/ proposals but lacks adequate collateral security to offer.

**Table 3.7: Coverage under CGTMSE (For eligible loans upto Rs 2.00 crore in MSE)
(Position as on 30.06.17)**

(A/C in 000, Amt in Crore)

| Eligible MSE Loan up to Rs 2.00 crore | | Coverage under CGTMSE | |
|---------------------------------------|----------|-----------------------|---------|
| Total | | Total | |
| A/C | Amt | A/C | Amt |
| 472 | 12787.77 | 114 | 4510.32 |

Source: 61st SLBC, Jharkhand

In the state of Jharkhand, the share in micro credit sector is 55.69 per cent against the RBI benchmark of 60 per cent (up to September 2017). Approximately, 1.14 lakhs credit account which accounts to 24.15 per cent of the total have been covered under CGTMSE scheme. More or less, the coverage percentage of all banks is very low but CGTMSE coverage of some private banks is just negligible.

Pradhan Mantri Mudra Yojana (PMMY)

Pradhan Mantri Mudra Yojana was announced in the Union Budget for FY 2016 by Government of

India for development and refinancing activities relating to micro units. Under PMMY, Micro Units Development and Refinance Agency (MUDRA), a new institution has been set up to provide refinance facility to the non corporate small business sector.

With a financial strength of 20,000 crores, the MUDRA aims to provide financing support to 5.77 crore (Ministry of Finance, Government of India) small businesses that are currently engaged in a wide spectrum of economic activities like retail, manufacturing, trading etc.

Table 3.8: Three Distinct Products Offered by PMMY

| S. No. | Loan Category | Loan Amount and Description |
|--------|---------------|---|
| 1 | Shishu | This is targeted towards startups and sanctioned loan amount will be up to Rs. 50,000. The idea is to provide enough financial support to cover the expenses for business set up |
| 2 | Kishore | This is targeted towards already existing businesses that lack exposure. The sanctioned loan amount will be between Rs.50000 and Rs 500000. This scheme will help businesses to gain exposure by expanding their supply segment, which will in turn help to reach out to more customers |
| 3 | Tarun | This is for those businesses which have grown to a certain level and have enough exposure but need help to take business to a new level. The sanctioned loan amount will be between Rs.500000 and Rs 1000000 |

Source: www.mudra.org.in

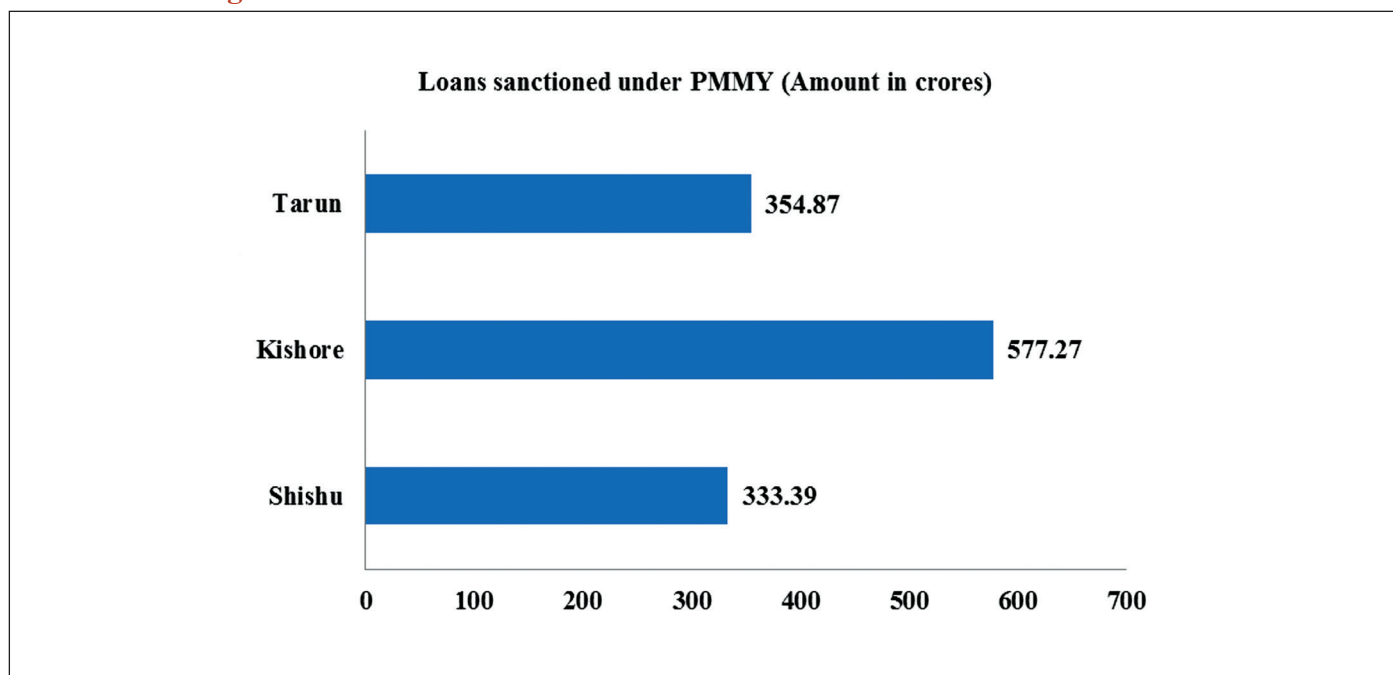
Table 3.9: Achievements of Jharkhand under PMMY (01.04.17 to 30.9.17)

(Amt in Crores)

| | Shishu | | Kishore | | Tarun | | Total | |
|------------|--------|--------|---------|--------|-------|--------|--------|---------|
| | No. | Amt. | No. | Amt. | No. | Amt. | No. | Amt. |
| Sanctioned | 106509 | 343.35 | 30003 | 626.46 | 4876 | 386.11 | 141388 | 1355.93 |
| Disbursed | 106080 | 333.39 | 30035 | 577.27 | 4902 | 354.87 | 141017 | 1265.54 |

Source: 61st SLBC, Jharkhand

Figure 3.4: Achievements of Jharkhand under PMMY-Amount Disbursed



Source: 61st SLBC, Jharkhand

Stand Up India Loan Programme

The Stand Up India scheme primarily aims in promoting the entrepreneurship among SCs, STs and women by providing finances to them from Rs. 10 Lakhs to Rs. 100 Lakhs, for establishing their new

businesses. The scheme is supposed to benefit the maximum number of people who are entrepreneurs from the SCs and STs. Banks have extended credit to 14 SC/ST beneficiaries and 78 Women Beneficiaries till 30th September 2017 under this programme.

Table 3.10 Jharkhand's Achievement in Stand up India Loan Programme till 30th September 2017

| Total Beneficiaries | Women Beneficiaries | SC/ST Beneficiaries | Loan Disbursed Amt. (in crore) |
|---------------------|---------------------|---------------------|--------------------------------|
| 91 | 78 | 14 | 12.99 |

Source: 61st SLBC, Jharkhand

National Rural Livelihood Mission

National Rural Livelihood Mission (NRLM) is an initiative launched by Ministry of Rural Development

(MoRD), Government of India in June 2011. The Aajeevika Skill Development Programme (ASDP) is a sub-mission under NRLM. It has evolved out of the need to:

- Cater to the occupational aspirations of the rural youth who are poor and
- To diversify the income of the rural poor

ASDP gives the young people from poor communities an opportunity to upgrade their skills and enter the skilled work force in the growing sectors of the economy. The training and placement schemes run in partnership with public, private, non government and community organizations. Strong relationships are being built with industry associations and employers. The target is to skill and place 50 lakh youth in the formal sector by 2017.

National Rural Livelihood Mission – Jharkhand’s Achievement

Jharkhand State Livelihood Promotion Society (JSLPS) was formed as an autonomous society in the year 2009 within the Rural Development Department, Government of Jharkhand. The society is created to serve as a special purpose vehicle for the smooth implementation of poverty reduction

schemes and programmes in the state. Jharkhand State Livelihood Promotion Society (JSLPS) has been designated by the State Government to implement the National Rural Livelihood Mission (NRLM) in Jharkhand in September 2011. JSLPS initiated implementation of NRLM in the financial year 2012.

As per the data provided by the 61st SLBC the total number of blocks covered under NRLM as on March 2017 was 125. The total number of villages covered till March 2017 was 7038 which increased by 3435 villages as compared to March 2016. The total number of SHGs supported by JSLPS which was 80789 as on March 2017 increased by 53296 as compared to March 2016. There are a total number of 20321 SHG credit linked with Banks. There has been an increment of 11684 SHG accounts linked with banks since March 2016 making the cumulative achievement till 30th September, 2017 of around 35429. The total amount of credit availed from bank under the NRLM from the date of inception till 30th September, 2017 was around Rs.23773 Lakhs.

Table 3.11: National Rural Livelihood Mission – Jharkhand’s Achievement (Till 30.09.17)

| Indicators | Status as on March’17 | Achievement in AFY-17-18 | Cumulative status as on date since inception |
|---|-----------------------|--------------------------|--|
| No of Blocks | 125 | 31 | 156 |
| No of Villages | 7038 | 2977 | 10015 |
| Total number of SHGs supported by SRLM | 80789 | 22662 | 103451 |
| Total families supported by SRLM | 979644 | 312309 | 1291953 |
| No of SHG receiving R.F | 37299 | 6438 | 43747 |
| Amt. of RF disbursed (Rs. In Lacs) | 5566 | 994 | 6560 |
| No of SHG receiving CIF | 27349 | 1581 | 28930 |
| Amt of CIF disbursed (Rs. In Lacs) | 15706 | 791 | 16497 |
| No of SHG credit linked with Banks | 20321 | 15108 | 35429 |
| Amt. of Credit availed from Banks (Rs. in Lacs) | 10165 | 13608 | 23773 |

Source: JSLPS

Performance of Microfinance in Jharkhand

Self Help Group (SHGs)

Self Help Groups (SHGs) are voluntarily formed informal groups of 10-20 members in which the members are encouraged to save on a regular basis. They use the pooled resources to meet the credit

needs of the group members. Intra region SHG penetration data in respect of NABARD-supported SHGs show that SHG penetration of Jharkhand is not sufficient. A total of Rs 87,274 lakhs loan amount is outstanding against SHGs as on 31.03.2017 (Table 3.12).

Table: 3.12: Progress under Microfinance- NPA for NABARD Supported SHGs (Amount in Rs Lakhs)

| State | As on March 31 2017 | | |
|-----------|------------------------------------|--------------------------------|---------------------------------------|
| | Loan Amt. outstanding against SHGs | Amt. of Gross NPA against SHGs | NPA as percentage to Loan outstanding |
| Jharkhand | 87274 | 5616.9 | 17.61 |

Source: NABARD

The commercial banks in the State are catering to 59,548 SHGs and have total saving amount worth Rs 8,677.69 lakhs while the RRBs are catering to 70,577 SHGs and have total saving amount worth Rs 6,293.00 lakhs. The cooperative banks are catering

to 225 SHGs and have total saving amount worth Rs 20.86 lakhs. The banks in total are catering to 1,30,350 SHGs and have total saving amount worth Rs 14,991.55 lakhs (Table 3.13).

Table 3.13: Progress under Microfinance – Savings of NABARD Supported SHGs with Banks-wise/ Agency-wise Position as on 31st March 2017 (Amount in Rs. Lakhs)

| State | Commercial Banks | | RRBs | | Cooperative Bank | | Total | |
|-----------|------------------|-------------|-------------|-------------|------------------|-------------|-------------|-------------|
| | No. of SHGs | Saving Amt. | No. of SHGs | Saving Amt. | No. of SHGs | Saving Amt. | No. of SHGs | Saving Amt. |
| Jharkhand | 59548 | 8677.69 | 70577 | 6293.00 | 225 | 20.86 | 130350 | 14991.55 |

Source: NABARD

Joint Liability Groups

A Joint Liability Group (JLG) is an informal group comprising preferably of 4 to 10 individuals but can be up to 20 members, coming together for the purposes of availing bank loan either singly or through the group mechanism against mutual guarantee. These groups are basically engaged in similar economic activities like crop production. Unlike in the case of SHGs, JLGs are intended basically as credit groups for tenant farmers and small farmers who do not have proper title of their farm land. Regular savings by the Group is purely voluntary and their credit

needs are to be met through loans from financial institutions and such loans could be individual loans or group loans. Financing of JLGs was introduced as a pilot project in 2004-05 by NABARD in 8 states with the support of 13 RRBs. The number of JLGs has remained very low in Jharkhand as compared with the whole Eastern Region and all India. The cumulative number of JLGs promoted has increased from 6,850 as at March-end 2016 to 19,084 as at March-end, 2017. The cumulative loan disbursed by them has increased from Rs. 8,470.54 lakhs to Rs. 22,352.31 lakhs during this period.

Table 3.14: Bank Loan Disbursed and Outstanding- JLGs as on 31 March 2017 (Rs in lakhs)

| State | Cumulative No. of JLGs promoted as on 31.03.2016 | Cumulative loan disbursed as on 31.03.2016 | Cumulative No. of JLGs promoted as on 31.03.2017 | Cumulative loan disbursed as on 31.03.2017 |
|-----------|--|--|--|--|
| Jharkhand | 6850 | 8470.54 | 19084 | 22352.31 |

Source: NABARD

Financial Inclusion

To realize the full potential of Jharkhand’s growing economy, we must ensure that the every citizen have access to the tools they need to protect their money, increase their capital and grow their businesses and livelihoods. At its core, the state government believes that financial inclusion is about promoting Jharkhand’s economic growth by providing a range of financial services to those who currently have limited or no access to them.

The Government of India rolled out Direct Benefits Transfer (DBT) scheme from 01st January, 2013. The DBT scheme is being successfully implemented in the State with the help of various schemes such as Pradhan Mantri Jan Dhan Yojana.

Pradhan Mantri Jan Dhan Yojana

PMJDY is a national mission on Financial Inclusion

encompassing an integrated approach to bring about comprehensive financial inclusion of all the households in the country. The plan envisages universal access to banking facilities, with at least one basic banking account for every household; financial literacy, access to credit, insurance and pension facility.

Pradhan Mantri Jan Dhan Yojana Status in Jharkhand

The total (Bank Saving and Bank Deposit) number of account opened under PMJDY till 30th September, 2017 was 109,44,624. The no. of accounts opened in the rural areas was much more than those of the urban sector. In the urban areas a total of 28,34,694 accounts were opened, whereas in rural area around 81,09,934 accounts were opened. Total number of Rupay debit card issued under PMJDY was 8123305.

Table 3.15 a : Status of SSA Coverage through BC

| Total no of SSA | SSA coverage through BC | SSA coverage through bank branches | Uncovered | No. of micro ATMs enabled and allotted to BCs | No. of Pin Pads enabled and allotted to BCs |
|-----------------|-------------------------|------------------------------------|-----------|---|---|
| 4178 | 3663 | 515 | Nil | 3578 | 5127 |

Source: 61st SLBC, Jharkhand

Table 3.15 b : Status of BC Performing Online Transaction

| Total number of BC appointed by Banks | Total no. of BC performing online transaction | Total no. of BC performing less than 50 transactions in a day | Total no. of BC performing transactions between 50 to 100 per day | Total no. of BC performing more than 100 transactions in a day |
|---------------------------------------|---|---|---|--|
| 5753 | 5350 | 2665 | 1586 | 1099 |

Source: 61st SLBC, Jharkhand

Table 3.15 c: Status of BC Performing Online Transaction

| BSBD accounts opened till 30.09.2017 | | | Rupay Card issue under PMJDY | Mobile Seeding done in PMJDY | Aadhar Seeding done in PMJDY | Total No. of Rupay cards distributed by Banks | Total No. of Rupay cards activated by Banks |
|--------------------------------------|---------|----------|------------------------------|------------------------------|------------------------------|---|---|
| Rural | Urban | Total | 8123305 | 6651593 | 9625917 | 6701719 | 5409922 |
| 8109934 | 2834694 | 10944624 | | | | | |

Source: 61st SLBC, Jharkhand

Branch Expansion

According to direction given by the Reserve Bank of India it is mandatory for banks to open their brick and mortar branches in all the villages with a population of more than 5000 but not having a branch of a scheduled commercial bank. In Jharkhand a total of 259 villages have been identified for this purpose in which 122 villages had bank brick and mortar branches, the rest 137 villages have been allocated to different banks to open their branches. Out of 137 villages, in 128 bank branches or fixed location BC has been opened.

Financial Literacy Centers

In Jharkhand, FLCs have been set-up in all the 24 districts. They are being run all over Jharkhand by different banks (Table 3.16 a). 24 RSETI are being run in the 24 districts of Jharkhand. The bank wise details are as follows:

Table 3.16 a: Status of RSETI (As on 30.06.17)

| Name Of Bank | Districts |
|----------------------|-----------|
| Bank Of India | 11 |
| State Bank of India | 8 |
| Allahabad Bank | 3 |
| Punjab National Bank | 2 |
| Total | 24 |

Source: 61st SLBC, Jharkhand

Table 3.16 b: Status of Credit Linkage of RSETI Trainees

| During AFY 2016-17 | | During AFY 2017-18 | |
|--------------------|---------------|--------------------|---------------|
| Total Trainees | Credit Linked | Total Trainees | Credit Linked |
| 19605 | 2855 | 6578 | 664 |

Source: 61st SLBC, Jharkhand

As mentioned in Table 3.16 b, the total number of trainees and credit linked has reduced from 19,605 and 2,855 during AFY 2016-17 to 6,758 and 664 during AFY 2017-18.

Table 3.16 c: FLCCs Running under State Authority

| Name of Bank | Bank Financial Literacy Centers | Count |
|---------------------|---|-----------|
| Bank Of India | Ranchi, Gumla, Lohardaga, Singhbhum (E) and (W), Giridih, Dhanbad, Koderma, Hazaribagh, Ramgarh, Bokaro, Chatra, Khunti, Saraikela, Simdega | 15 |
| State Bank of India | Deoghar, Pakur, Sahibganj, Jamtara, Garhwa, Latehar, Palamu | 7 |
| Allahabad Bank | Dumka and Godda | 2 |
| Total | | 24 |

Source: 61st SLBC, Jharkhand

Table: 3.17: No of FLC Camp Organized between July-September, 2017

| Camp Organized in July-September,2017 | |
|---------------------------------------|------|
| Camp Organized by F.L.C | 1010 |
| Camp Organized by Gramin banks | 1667 |
| Total | 2677 |

Source: 61st SLBC, Jharkhand

Spreading Digital Awareness

In order to develop less cash economy, all possible efforts are being taken to popularize the digital transaction in the state. All LDMs/Bank branches/BCs are regularly monitoring and persuading the people to aware them about various methods of cashless transaction. POS machines are being provided to the desired commercial institutions. Out of 23,067 applications for POS machines, 2,2482

POS machines have been installed up to 30.09.2017.

Besides this, for spreading financial awareness, the Panchayat Banks are an innovative effort to enhance the accessibility to financial services in the rural areas. Given the stress on livelihoods through the National Rural Livelihood Mission and employment guarantee through MGNREGS, the provision of banking facilities at the doorstep is only a logical step. Though there are some gaps and this initiative is at a nascent stage, it has served a felt need for financial services in the rural areas. The plans are underway to synchronize transaction details of Panchayat Banks with governmental servers which will help in getting real time updates. Efforts are underway to further improve this banking model, and the goal of one bank per Panchayat is yet to be achieved.

Box 3.1: Awareness Events – Garib Kalyan Mela and Mudra Protsahan Abhiyan

Garib Kalyan Mela was organized on 16.09.2017 (except 6 six districts of Santhal Pargana) and on 22.09.2017 (6 six districts of Santhal Pargana) in which the target of distributing loans worth Rs 250 crore in 10000 accounts (SHG/SUI/PMMY) was given to the Banks. Loan amounting to Rs 254.43 crore was distributed to 29301 beneficiaries in the State with the cumulative efforts of all the Banks.

Conclusion

The financial inclusion in the State is progressing steadily but much more is desired. Awareness amongst the local rural masses is quite unsatisfactory. Lack of education is the greatest cause of concern. Nonetheless, overall, the financial inclusion in the state has improved satisfactorily. Despite various issues, the banks in Jharkhand have been gradually

extending their services to the unbanked areas through new branches and business correspondents. Going forward, Jharkhand as a state along with the Centre government, banks and other financial institutions is bringing financially excluded people under the network of banking services. This will help in the efficient flow of government benefits to them and would improve their financial activity by improved saving and investment behavior.

IV

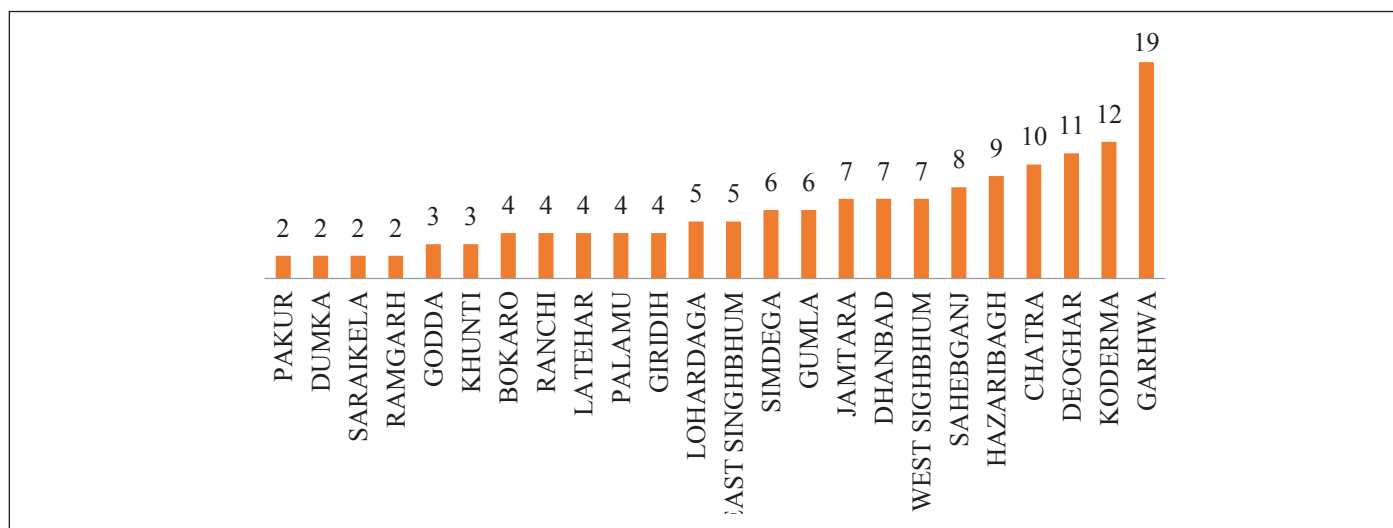
RURAL DEVELOPMENT AND PANCHAYATI RAJ



The issues pertaining to the development of rural areas are taking a center stage in the broader vision and goals of the development of the country. In the past few fiscal years, the rural development department has been committed to address the issues in a target based approach. It recognizes the importance of creating opportunities for the rural population of the state in areas like employment, livelihood, skill development, enhancing agricultural production and delivering better services in areas like education, health, drinking water, sanitation, housing, infrastructure etc.

Jharkhand from its very inception tried to make rural resources as its engine of growth. The state was not very fortunate to have many urban agglomerations during its formation and it hasn't grown in a desirable pace in the last decade. Thus, the growth and development which takes place in the urban areas of the state due to improvements in public service delivery, does not easily percolate to the rural areas. As seen in the figure below, there are only a minuscule percentage of villages in and around 10 KM radius of the urban centers.

Figure 4.1: Percentage of Villages within 10 Km of Town



Source: Census 2011

Jharkhand has 36,827 villages spread across 24 districts, but most of these villages are very small compared to the neighboring states. In Jharkhand, less than 1 percentage of villages have a population of more than 5000. Majority of the villages (46.47

per cent) are as small as having a population of less than 500, followed by 27 per cent of the villages having a population between 500 to 999 and 26 per cent having a population between 1000 and 5000.

Table 4.1: Average size of Villages in India and Jharkhand

| Percentage of villages in different population classes | | | | | | | | |
|--|-------|-----------|----------|-----------|-----------|-----------|-------|-----------|
| Year/Pop. | <500 | | 500- 999 | | 1000-5000 | | >5000 | |
| | India | Jharkhand | India | Jharkhand | India | Jharkhand | India | Jharkhand |
| 2001 | 36.9 | 54.15 | 24.5 | 25.35 | 31.44 | 19.81 | 3.17 | 0.69 |
| 2011 | 32.9 | 46.47 | 23.7 | 26.95 | 39.42 | 25.7 | 3.9 | 0.88 |

Source: Census 2011

As a result, Jharkhand follows an alternate development paradigm where “*Gram Uday*” (Development of the villages) is followed by “*Jharkhand Uday*” (Development of Jharkhand). With very high percentage (75.95 per cent) of population residing in rural areas of the state, the government policies in the last fiscal years have specifically targeted the challenges and issues of the rural populace of the state. The comparative trends discussed in the chapters show that the department of rural development is committed to reduce the development gaps in areas pertaining to rural livelihood, employment, rural infrastructure, parity in gender participation and skill development that could help in improving vital indicators like income, health, education, creating an overall enhanced status of living in rural areas.

To gauge the progress made by the state in rural areas in the last fiscal year, we analyze and discuss the development work undertaken and its impact on the rural population of Jharkhand in the following sections.

Deen Dayal Antyodaya Yojna (DAY)- National Rural Livelihood Mission (NRLM)

While providing basic services in education and health is necessary, creating a sustainable source of livelihood is imperative in realizing the objective of improving the quality of life of the rural population of the state. To realize this objective, the department is successfully implementing the central flagship program of National Rural Livelihood Program (NRLP) in the state from 2011 in a phased manner. Apart from the centralized guideline, the department has shown many important state specific innovations

through thoughtful experiments and planned interventions. By the year 2020-21, it is aimed that the program will cover the whole of rural Jharkhand in its ambit with a total of 32,000 villages creating about 2,91,000 Self Help Groups. In the state of Jharkhand, the whole program of NRLM is being planned, implemented and managed by Jharkhand State Livelihood Promotion Society (JSLPS), an autonomous society within the Rural Development Department, Government of Jharkhand. JSLPS initiated implementation of NRLM in the financial year 2012-13.

The program commenced in eight blocks across three Districts of Pakur, West Singhbhum and Ranchi. Presently, a total of 17 blocks from nine districts are currently being developed as **Resource Blocks**, by taking services of externally Community Resource Persons (CRPs) from two National Resource Organizations (NRO) Resource blocks- blocks where the program is implemented with the help of National Resource Organization (NRO) and create own resources and institutional building model so that it can be expanded and replicated in other intensive blocks.

Apart from Resource Block strategy, in FY 2016-17 Jharkhand SRLM developed additional selected **108** blocks as intensive blocks by using its own internal community resources either from existing resource blocks or with women SHG federations under Home Grown Model (HGM) or partnership model.

Currently, the State Rural Livelihood Mission (SRLM) has presence in total of **190** blocks under intensive strategy. Other than the above 190 blocks, NRLM has its interventions through DRDA which are categorized as **non-intensive blocks**.

Table 4.2: Proposed district and block intensive phasing plan of Jharkhand SRLM

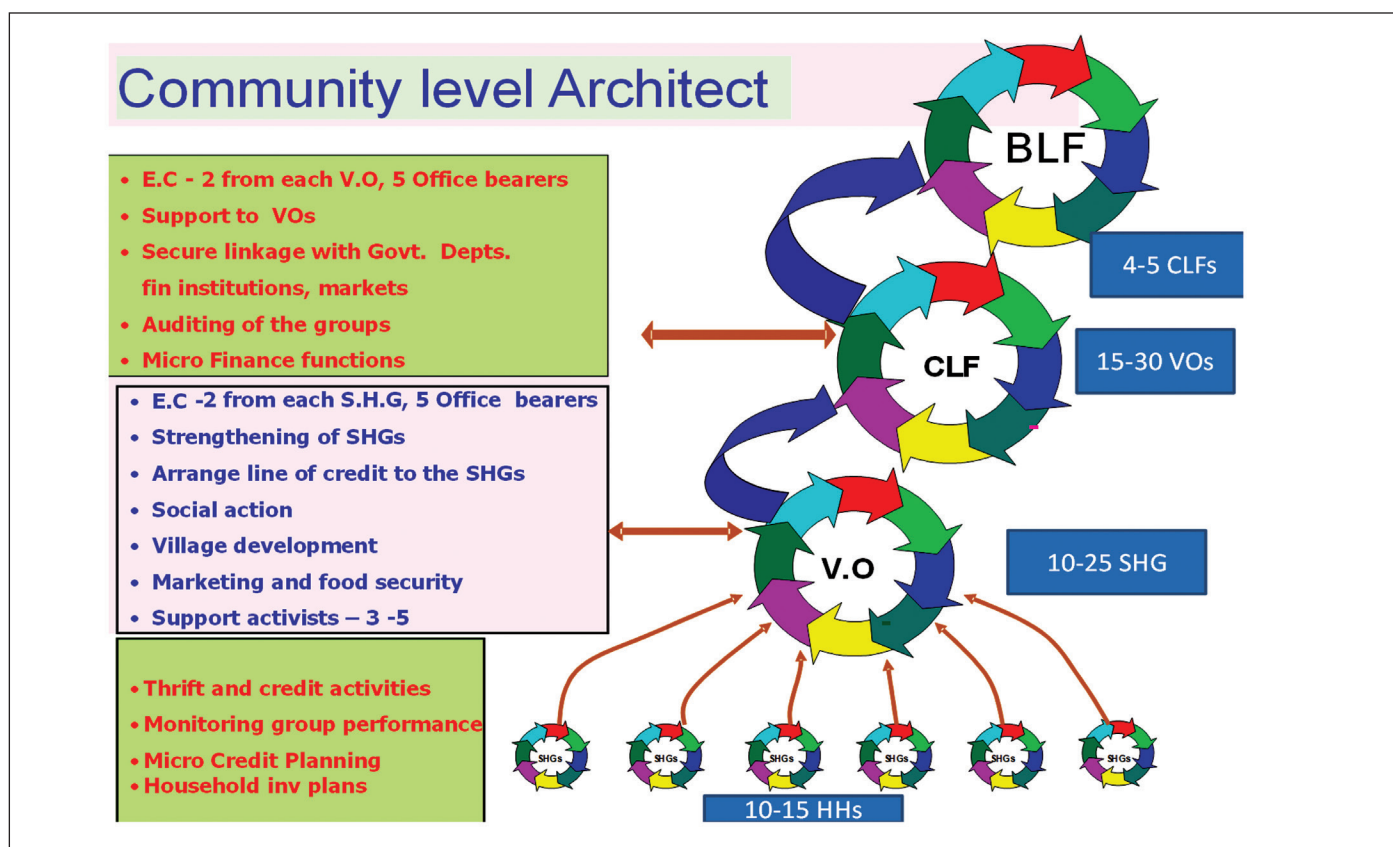
| Phase | Time Period | Districts | Blocks | Villages | SHGs |
|-------|-------------|-----------|--------|----------|--------|
| I | 2012-13 | 3 | 7 | 110 | 1454 |
| II | 2013-14 | 12 | 40 | 1222 | 8005 |
| III | 2014-15 | 12 | 40 | 2313 | 16945 |
| IV | 2015-16 | 20 | 80 | 3603 | 27493 |
| V | 2016-17 | 24 | 122 | 7000 | 52000 |
| VI | 2017-18 | 24 | 200 | 13500 | 121000 |
| VII | 2018-19 | 24 | 263 | 19000 | 172000 |
| VIII | 2019-20 | 24 | 263 | 26000 | 233000 |
| IX | 2020-21 | 24 | 263 | 32000 | 291000 |

Source: NRLM Progress Report (December 2017)

The mission is based on decentralized community level planning where Self Help Groups are the basic units of the program process. A representative 15-25 SHGs forms a Village Organization (VO) at village level; a total of 15-30 VOs forms a Cluster Level

Federation (CLF); and 4-5 CLFs in a block forms a block level federation. The block level federation is the linkage between the village level federations and various government departments, financial institutions, auditing groups etc.

Figure 4.2: Community level Planning for implementation of NRLM



Source: NRLM Progress Report (December 2017)

NRLM through its various components aims at Social Inclusion and mobilization, Financial Inclusion,

Livelihood promotion and Skill Development in rural areas of the state.

Social Inclusion, Mobilization and Institution building

Mobilization of the poor to form their 'own institutions' is the most important prerequisite and the core investment for large scale poverty reduction. A Self Help Group (SHG) of 10-20 persons in general is the primary building block of the NRLM institutional design and the edifice for transformation. The SHGs promoted by JSLPS are called *Sakhi Mandals*. The idea is to reach out to all rural poor and vulnerable households' members through *Sakhi Mandal* and these Sakhi Mandals are federated at the village level and further at cluster level. At the end of FY 2016-17, JSLPS expanded its outreach to 10 lakhs families of rural poor households in 125 blocks across 24 district of Jharkhand and by the end of the current financial year 2017-18 the mission aims at expanding its ambit to a total of 200 blocks covering a population of over 14 lakh households.

Table 4.3: Physical Progress of NRLM in Jharkhand (2017-18)

| | |
|--|-----------|
| Total No. of districts entered | 24 |
| Total No. of blocks entered | 190 |
| Number of villages entered | 11,590 |
| Total Number of SHGs supported by SRLM | 1,13,969 |
| Total families supported by SRLM | 14,27,503 |
| No. of VOs formed | 5,678 |
| No. of CLF Formed | 163 |

Source: NRLM Progress Report (December 2017)

Financial Inclusion

JSLPS also provide the rural population of the intervened block with access to repeat finance at affordable cost and in desired amounts and convenient repayment terms. Weekly savings and timely repayment is one of the core principles of

SHGs and JSLPS is promoting these practices to meet immediate need of SHGs members. Apart from weekly savings, NRLM also provides revolving funds (RF) to SHGs and community investment fund (CIF) to community institutions to meet the credit need. JSLPS also provides facilitation support for credit linkages from bank for creating sustainable livelihood asset.

Bankers are treating these institutions as probable and possible clients and trust on them has considerably increased .JSLPS has also initiated Bank Sakhi Model, where community institutions identify the SHG's member and place them in the bank branches for helping SHGs in bank related work. Similarly, Banking Correspondents are deployed to provide at door banking services.

Table 4.4: Status of Financial Inclusion under NRLM (2017-18)

| | |
|--|--------|
| No. of SHGs with bank account | 77,835 |
| No. of SHGs that have received Revolving Fund (RF) | 45,820 |
| Amount of RF disbursed (Rs. in lakh) | 6,872 |
| No. of SHGs that have received Community Investment Fund | 31,515 |
| Amount of CIF disbursed (Rs. in lakh) | 17,759 |
| Total amount of RF/CIF disbursed (Rs. in lakh) | 24,631 |
| No. of SHGs credit linked to Banks | 58,469 |
| Estimated amount of credit limit leveraged from Banks (Rs. Lakh) | 46,775 |

Source: NRLM Progress Report (December 2017)

Livelihood Generation

The most common livelihoods of the poor are cultivation on small and marginal land holdings , cattle rearing, collecting forest produce, fishing, wage labour, etc. The poor are also looking at new alternative livelihoods options in the employment continuum. *Sakhi Mandal* members are also adopting new techniques for farming and also exploring

the best practices and new innovations. They are also involved in income generation activities like livestock, NTFP and other off farm activities. In order to promote livestock rearing at community level, JSLPS has introduced the PASHU SAKHI model. PASHU SAKHIs are identified at the village level to provide services like shelter management, vaccination, insurance of livestock etc.

Rural women are the most productive work force in the economy and are involved in majority of the development work in the villages. Hence there is separate project *Mahila Kisan Shashakti Pariyojana* to empower women recognizing them as farmers.

Table 4.5: Works undertaken for improvement of livelihood under NRLM (2017-18)

| | |
|--|-----------------|
| No. of farmers registered for SRI (cumulative figure) | 3,11,887 |
| No. of farmers practicing CMSA | 4,736 |
| No. of farmers with goat interventions | 45,352 |
| No. of Livelihood Community Cadres developed – AKM & APS | 7,800 |

Source: NRLM Progress Report (December 2017)

MKSP(Mahila Kisan Sasktikaran Pariyojana)

The primary objective of the MKSP is to empower women in agriculture by making systematic investments to enhance their participation and productivity, as also create and sustain agriculture based livelihoods of rural women. The project seeks to enable women to gain better access to the inputs and services provided by the government and other agencies. It helps women gain more control over resources and manage support systems by establishing efficient local resource based agriculture. Once the production capacities of women in agriculture improve, food security ensues for their families and communities.

Specific objectives of MKSP are as under:

The primary objective of the MKSP is to empower women in agriculture by making systematic investments to enhance their participation and productivity, as also create and sustain agriculture based livelihoods of rural women. By establishing efficient local resource based agriculture, wherein women in agriculture gain more control over the production resources and manage the support systems, the project seeks to enable them to gain better access to the inputs and services provided by the government and other agencies. Once the production capacities of women in agriculture improve, food security is ensured for their families and communities.

Specific objectives of MKSP are as under:

- o To enhance the productive participation of women in agriculture;
- o To create sustainable agricultural livelihood opportunities for women in agriculture;
- o To improve the skills and capabilities of women in agriculture to support farm and non-farm-based activities;
- o To ensure food and nutrition security at the household and the community level;
- o To enable women to have better access to inputs and services of the government and other agencies;
- o To enhance the managerial capacities of women in agriculture for better

Table 4.6: Physical Progress of MKSP

| | |
|---|---------------|
| MKSP- (Sustainable Agriculture) Total number of Women farmers | 46,399 |
| MKSP- (Livestock) Total number of HH | 40,860 |
| MKSP- (NTFP) Total number of HH | 23,625 |
| Total livelihood Institution (Producer group)Formed | 271 |
| Number of AKM/ APS/ AVM Developed | 1,575 |

Source: NRLM Progress Report (December 2017) Skill Development and Placement

Skill development is another component of the mission which aims at creating diversified employment opportunity for youth in the long run. The Ministry of Rural Development (MoRD) announced the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) Antyodaya Diwas, on 25th September 2014. DDU-GKY is a part of the National Rural Livelihood Mission (NRLM). The program presently covers 19 districts of Jharkhand. 34 different trades are being offered by 14 Program Implementing agencies (PIA) through their training centres based in different districts of Jharkhand. In a bid to further reach out to rural youth in Jharkhand's most susceptible Left-Wing-Extremism (LWE) districts, special skill-development scheme Roshni was initiated. It targets six districts, Gumla, Palamu, Chatra, Laterhar, Garhwa and West Singhbhum.

Table 4.7: Physical Progress in Skill development and placement

| | |
|---|---------------|
| No of Youth trained | 18,872 |
| No of Youth Under training | 1,897 |
| Placement (Job completed more than 3 months) | 5,038 |

Source: NRLM Progress Report (December 2017)

Convergence in Social Development

SHGs have become such a strong unit of social development at the village level that they are looked up to for the implementation of other developmental programs. Thus, JSLPS is converging activities of food, health, nutrition and WASH with exiting activities of NRLM to reduce morbidity, sporadic episodes of illness and decrease the out of pocket expenditure.

Connecting the under privileged and the underserved with entitlements is only possible when demand of the entitlements would be articulated and through convergence the disadvantaged people would be served.

Table 4.8: Progress in social development

| | |
|---|---------------|
| No of Group of PWD formed | 389 |
| Total no. of VOs received Vulnerability Reduction Fund (VRF) | 951 |
| Total amount disbursed (in lakhs) | 951 |
| No of VOs trained on Food , Health Nutrition and WASH | 2144 |
| No of IHHL constructed by Vos/SHGs | 92,124 |

Source: NRLM Progress Report (December 2017)

Sui Generis Model for making Villages Open Defecation Free (ODF)

As per the Census 2011, open defecation was the highest in Jharkhand out of all the states in India with a staggering 92.4 per cent of rural population practicing open defecation. To accelerate the efforts of the Swachh Bharat Mission (SBM) in making Open Defecation Free (ODF) communities, the GoJ have given the VOs the responsibility of construction of toilets and monitoring its usage in the community.

In this model, the rupees twelve thousand incentivization for construction of the toilets would be given from the Department of Drinking Water and Sanitation, to the VOs account, and after the construction, the VOs would be giving the Utilization Certificate and uploading the photograph. By Novemebr 2017, more than Rs 135 crore have been transferred to the account of the VOs. More than one lakh toilets have been constructed by the VOs/SHGs across the twenty four districts of Jharkhand.

Strengthening FNHW (Food, Nutrition, Health and WASH) and VHND

Rural Health has always been a priority concern for the government. In this view, the department of health is converging some of its programmmes with JSLP in order to strengthen the rural health infrastructure and increase the degree of penetration of various

rural health programs. Under this convergence, in all the 24 districts of Jharkhand, VO members of the Social Action Committee have been trained and they are well aware of the service delivery on VHND days. As a result, the coordination of the VO members with the serviced delivery functionaries

like Sahiya (ASHA worker), ANM and AWW (Angawadi Workers) have improved. With increase in the workforce, the centres are witnessing increase in frequency and punctuality of the events. Nearly 2500 VHND sessions have been supervised up till now.

Box 4.1: Brood Lac Production- An Intervention by village organization

Banjira Village is situated near the Saranda forest and it is one of the most interior villages in Goikera Block of West Singhbhum District. According to the villagers they are engaged in the lac cultivation for many years, but the production was deteriorating drastically over the years. Their cultivation always suffered with high insect mortality rate, several diseases and unavailability of good quality of brood Lac.

In January 2017, this village was selected for the scientific lac cultivation under special project of MKSP (Mahila Kisan Sasaktikaran Pariyojna). A total of 250kg of brood lac was provided among 50 farmers in January 2017. After the completion of the production cycle, total harvest of Brood Lac was 1605 kg. Each selected farmer returned 5.5 kg to the VO as per brood lac policy of JSLPS. 1130kg was sold by farmers to the VO at the rate of Rs.270/kg and around 223 kg has been used by farmers themselves as brood.

With the success gained in the area, Pradhan Soye along with the farmers has decided to establish lac as the most prominent livelihood for the area with the following steps:

1. To cover every single household of the village under Scientific Lac Cultivation.
2. Develop the village as a hub for brood lac, so that shortage of brood lac can be addressed by making it readily available in the season to all those who want to try their fate in scientific lac cultivation in addition to taking care of demand in the block or supplying to other blocks.
3. Follow coupe system for maximum coverage of host plants in a sustainable way to make sure that the available resources are utilized in judicious and optimum manner.

Other achievements under NRLM

Incense Stick:

- Incense Stick production cluster is being promoted in five locations of Ranchi District where handroll Agarbati was being practiced
- 100 pedal machines have been installed in Angara and Silli blocks providing livelihoods to 200 women members

Sanitary Napkin:

- Three units with capacity to produce 2000 pads per unit/ day have been established in Oramanhi (Ranchi), Ghatshila

(E.Singhbhum) & Bengabad (Giridih)

- Training and Production is in progress.

Tailoring Unit:

- In Giridih, 60 Sakhi Mandal Members have been trained on School Uniform making to supply 15000 school uniforms in govt. schools.
- Additional 30 members have been trained in Ranchi.

Tamarind Processing:

- Five processing units established in four blocks (Murhu, Kolebera, Budnu & Namkum)

- Close to 1500 member of Producer Groups are involved in collection, processing, packaging and marketing of Tamarind

Solar Light (SoUL) Project:

- In collaboration with IIT – B, 5.6 lakh Solar Lamps have to be sold @ Rs. 100/ per lamp to school going children
- 18 Assembling & Distribution Centers and 120 enterprises for Repair & Maintenance of Solar Lamps would be established in various project blocks

Intervention of Drip irrigation facility by JICA (Japan Intensive Cooperation Agency)

- I-HIMDI will provide an MDI package (micro drip irrigation, poly nursery house, and vermin compost unit) to some 30,000 small and marginal farmers to improve their livelihoods through horticulture intensification
- Skills and know-how of MDI farmers on horticulture intensification are improved cultivation to 30,000 families
- Area to be covered under MDI 300 Ha
- It is expected that incremental vegetable production as caused by I-HIMDI would reach 0.13 million t/year in 2022, which accounts for 2.5 per cent of the state's vegetable production.
- Establishment of 1250 Community Resource Person/Ajeevika Krishak mitra

Jharkhand Opportunities for Harnessing Rural Growth Project (JOHAR)

The central and state government both are striving hard to curb down the poverty level in rural areas of the state, create sustainable livelihood through different programs and improve the quality of life in rural areas. Until now, many instruments like top-down employment generation, literacy programs, financial programs and skill development programs have been framed to attack this vicious problem of

the society. But in 2016, the central government with the support of World Bank tried to create a more holistic framework which will not only support livelihood, but will make rural populace self dependent in creating livelihood for themselves using comparative advantage of the local rural resources. To channelize this process a new program called JOHAR was introduced. (JOHAR) project aims at creating a transformative change in the incomes of rural producers by bringing a systematic approach to diversification, high-productivity production systems, increased linkage to higher-order markets and rural entrepreneurship.

Project activities are grouped under three main components:

(a) Component 1 – Diversified and resilient production. This will involve support for producer collectives and for intensification and diversification across the sub-sectors of HVA, livestock, NTFP, fisheries and irrigation.

(b) Component 2 – Promoting market access, skill development and pro-poor finance. This will involve support for promoting market access and private sector participation; fostering skill development relevant to the focus value chains; and facilitating the development of pro-poor agricultural finance systems.

(c) Component 3 – Project and Knowledge Management. This will involve support for project and knowledge management. The detailed description of the project components is provided below.

JOHAR projects will reach out to more than 200,000 rural households in 65 project 17 blocks spread across the 17 project districts. The primary project beneficiaries, and key stakeholders, include women and men farmers (small and marginal), livestock

rearers, fishers and tribal communities dependent on forest produce. Participation of women, scheduled caste and scheduled tribe households among the project beneficiaries is a key results indicator of JOHAR.

The sub-sector-wise outreach will be 150,000 households for High Value Agriculture and Irrigation, 50992 households for livestock, 34,500 households for fishery and 65,600 households for NTFP interventions.

Targetable objectives of the program

To enhance and diversify household income in select farm and non-farm sectors for targeted beneficiaries in project areas. The PDO indicators are:

1. Percentage increase in average annual household income (real) of at least 60% of the targeted households
2. Percentage increase in the proportion of income (real) from select productive livelihoods sources
3. Number of farmers reached with agricultural assets or services
4. Percentage of project beneficiaries that belong to SC/ST categories

Notable Achievements

- The Goat Rearing model of Jharkhand has bagged national level ‘Best Practices award’ under SAGY
- Jharkhand is the first SRLM to successfully roll out Tablet Based Transaction MIS and has nurtured more than 500 *tablet didis*
- The Community Based Monitoring System (CBMS) of the State got national recognition from NMMU & won SKOTCH Award

- JSLPS witnessed visits by various international and national development practitioners
- CLF & VO office infrastructural support was announced by the state government.
- Cabinet approved JSLPS as nodal agency for SHGs.
- Stepping towards digital and cashless India, the state government is providing mobile phones to 1.0 lakh SHGs.
- 8 new rural haats have been established by MECs supporting around 550 enterprises.

Pradhan Mantri Awas Yojna - Gramin

Public housing started in the country as an instrument of poverty alleviation. Housing has always been seen as an important parameter for well being of an individual and thus government has tried to fill in the gaps in housing through its dedicated programs. With lack of financial stronghold there has always been a wide deficit in urban-rural housing and acknowledging this, a central rural housing program called Indira Awas Yojna was introduced. To meet the government’s commitment of providing “Housing for All” till 2022, the program got restructured and named Pradhan Mantri Awas Yojna- Gramin (PMAY-G) w.e.f 1st April 2016.

PMAY-G aims at providing pucca house, with basic amenities, to all houseless households and to those households staying in kutcha or dilapidated houses in rural areas by 2022.

Key Features of PMAY—G

- a) The minimum unit (house) size enhanced from 20 sq.m (under IAY) to 25 sq.m including a dedicated area for hygienic cooking.

- b) Enhancement of unit assistance from Rs. 70,000 to Rs. 1.20 lakh in plains and from Rs 75,000 to Rs.1.30 lakh in hilly states, difficult areas and IAP districts.
- c) The cost of unit (house) assistance is to be shared between Central and State Governments in the ratio 60:40.
- d) Provision of assistance (Rs.12,000/—) for toilets through convergence with Swacch Bharat Mission —Gramin (SBM—G), MGNREGS or any other dedicated source of funding.
- e) Identification and selection of beneficiaries, based on the housing deficiency and other social deprivation parameters in SECC-2011 data, and verified by the Gram Sabhas.
- f) Setting up of National Technical Support Agency (NTSA) at national level to provide technical support in achieving the target set under the programme. The beneficiaries of PMAY-G, in addition to being provided financial assistance, shall also be offered technical assistance in the construction of the house.
- g) Convergence with other government schemes for provision of basic amenities viz., toilet, drinking water, electricity, clean & efficient cooking fuel, treatment of social and liquid waste.
- h) All payments to the beneficiary to be made electronically to their Bank/Post office accounts that are linked to Adhaar with consent.

The department of rural development is striving to achieve the target and as a result the state has witnessed a mutifold increase in the physical progress of the program. A special drive was

conducted by the department across the rural areas of the state to sensitise people about the components and benefits of the program. As a result in 2016-17, 2,42,459 beneficiaries got registered for building own houses. In the same financial year, a total of 2,22,415 houses have been sanctioned to the registered beneficiaries. Especially districts like Chatra, Dumka, Palamu, Bokaro, Garwah, Giridih and Sahibgunj witnessed huge demand for houses crossing 10,000 beneficiaries who have registered and have been sanctioned with a house. The figures also show(refer to the appendix) that a great thrust was given to gender parity. Out of the total sanctioned houses, about 26 per cent of the houses were allotted in the name of both male and female members jointly, while, about 17 per cent houses were only sanctioned to women headed households. Social category wise disaggregation (refer to the appendix) also shows an equitable distribution of sanctioned houses. While about 40 per cent of the total households were allotted to ST households, about 19 per cent and 14 per cent were sanctioned to SC and minority households respectively.

With modern innovative house building techniques using cost-effective locally procured raw materials, the pace of building houses have accelerated. Until December 2017, 82,185 houses were already built for handing over to the beneficiaries. In districts like Chatra, Bokaro, Ranchi Hazaribagh, Giridih, West and East Singbhum over 4000 houses were built in this period. The data for completed houses also shows a similar trend of gender and social distribution. About 26 per cent of the completed houses are named jointly for both male and female members and about 16 per cent houses were built for women headed households. If we see the data of completed households, about 33 per cent of the total completed houses belonged to ST community, while, 18 per cent and 16 per cent houses belonged to SC and minority communities.

Table 4.9: Physical Progress of IAY and PMAY

| District | Financial year 2015-2016 (IAY New Construction) | | Financial year 2016-2017 (PMAY) | | PMAY |
|----------------|--|----------------------|------------------------------------|----------------------|---|
| | Beneficiaries registered | Houses sanctioned | Beneficiaries registered | Houses sanctioned | Total Houses completed up till Dec 2017 |
| | In no. | In no. | In no. | In no. | In no. |
| BOKARO | 505 | 465 | 10632 | 10293 | 5204 |
| CHATRA | 1429 | 1414 | 15178 | 13707 | 6056 |
| DEOGHAR | 2267 | 1735 | 7676 | 7012 | 2914 |
| DHANBAD | 1842 | 1623 | 9500 | 8391 | 2927 |
| DUMKA | 2338 | 2285 | 16041 | 15384 | 3260 |
| EAST SINGHBHUM | 2254 | 2217 | 11983 | 10722 | 4523 |
| GARHWA | 2112 | 2103 | 17086 | 16141 | 2614 |
| GIRIDIH | 2256 | 2251 | 12588 | 11189 | 5011 |
| GODDA | 2361 | 2066 | 9991 | 9357 | 2792 |
| GUMLA | 1604 | 1561 | 8133 | 7501 | 2872 |
| HAZARIBAGH | 1763 | 1758 | 9663 | 8272 | 4217 |
| JAMTARA | 1644 | 1287 | 8621 | 7776 | 3128 |
| KHUNTI | 1138 | 1137 | 8748 | 8583 | 3178 |
| KODERMA | 861 | 857 | 3264 | 2783 | 1753 |
| LATEHAR | 2686 | 2588 | 8941 | 8248 | 3121 |
| LOHARDAGA | 779 | 776 | 4058 | 3789 | 2104 |
| PAKUR | 1564 | 1538 | 12624 | 11613 | 1249 |
| PALAMU | 2895 | 2748 | 15562 | 14861 | 3345 |
| RAMGARH | 1760 | 1747 | 3170 | 2879 | 2425 |
| RANCHI | 2984 | 2857 | 9100 | 8559 | 4436 |
| SAHEBGANJ | 1815 | 1800 | 15178 | 13352 | 3223 |
| SARAIKELA | 1535 | 1383 | 10917 | 9032 | 3701 |
| SIMDEGA | 1559 | 1353 | 5724 | 5267 | 2246 |
| WEST SIGHBHUM | 2285 | 2274 | 8081 | 7704 | 5886 |
| Total | 44236 | 41823 | 242459 | 222415 | 82185 |

Source: www.aawassoft.nic.in

Bhimrao Ambedkar Awas Yojna

Apart from the centrally sponsored scheme, the state government also took a noble step to give shelters to the most vulnerable section of the rural population across the state. The state is a victim of rampant trafficking and witch hunting, making the survival of the affected women difficult. Keeping in view of this problem, the state government launched the Bhimrao Ambedkar Awas Yojna in the previous financial year to the single women or women headed households in special circumstances. The eligible beneficiary includes widows, divorced or deserted women, female victims of atrocities and those whose husbands are missing for more than 3 years. Under this program, the government has planned to give financial and technical support of Rs 70,000 to each beneficiary. The program targets to build 11,000 dwellings in the coming years across the state. In the year 2017-18, the program was promoted among the rural household and beneficiaries are being registered for sanction of houses. The beneficiaries are being selected on the basis of Socio-Economic Caste Census (SECC) through lowest strata technique.

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

Jharkhand has been among the states where MGNREGA is successfully and effectively implemented with lot of state specific innovation in the past few years. MGNREGA which started with the prime objective of creating a livelihood safety net by guaranteeing at least 100 days of unskilled employment to each rural household, has not only been a program but with its holistic nature and

design, it has been a framework with which many of the ongoing programs are converged so that the rural areas can get all round development. It has proved to be an instrument for ensuring inclusive growth in rural India through its impact on social protection, livelihood security, infrastructure provisioning, natural resource management and democratic empowerment.

Employment generation in Jharkhand under MGNREGA

Since its inception, MGNREGA has been generating employment for the rural people almost at their doorstep. With passing phases, it has widened its ambit in terms of assets that are created as per the demand and the local need of the people. In the current financial year (till December 2017), about 4.6 crore person days of work could be successfully generated giving employment to 16.4 lakh individuals supporting 12.52 lakh households across the state. Out of the total person days generated, about 28 per cent employment was provided to Scheduled Tribe community, while about 11 per cent was provided to Scheduled Caste households. According to the MIS data, about 77 lakh workers got employment under this program till date. The average wage rate has also increased substantially keeping in par with the market wage rate. Out of the total households getting work, 26,759 households have successfully got employment for more than 100 days. Although, the progress in the parameters are not very significant, but keeping in mind the scale and the reach of the program, a lot of effort is needed to achieve the sustained level of outcome.

Table 4.10: Physical Progress of MGNREGA in Jharkhand (till December 2017)

| Employment Generation | | | | |
|---|--------------|--------------|--------------|--------------|
| Total No. of Job Cards issued[In Lakhs] | 41.84 | | | |
| Total No. of Workers[In Lakhs] | 76.97 | | | |
| Total No. of Active Job Cards[In Lakhs] | 21.31 | | | |
| Total No. of Active Workers[In Lakhs] | 26.58 | | | |
| (i)SC worker against active workers[%] | 11.18 | | | |
| (ii)ST worker against active workers[%] | 34.08 | | | |
| II Progress | FY 2017-2018 | FY 2016-2017 | FY 2015-2016 | FY 2014-2015 |
| Approved Labour Budget[In Lakhs] | 700 | 700 | 646.05 | 486.14 |
| Persondays Generated so far[In Lakhs] | 460.26 | 707.48 | 585.61 | 453.34 |
| SC persondays % as of total persondays | 11.02 | 12.04 | 12.07 | 13.56 |
| ST persondays % as of total persondays | 28.39 | 32.42 | 38.95 | 35.54 |
| Women Persondays out of Total (%) | 37.17 | 35.72 | 32.75 | 32.05 |
| Average days of employment provided per Household | 36.77 | 40.6 | 52.01 | 40.8 |
| Average Wage rate per day per person(Rs.) | 167.98 | 166.98 | 161.97 | 157.96 |
| Total No of HHs completed 100 Days of Wage Employment | 26,759 | 37,150 | 1,74,276 | 82,412 |
| Total Households Worked[In Lakhs] | 12.52 | 17.43 | 11.26 | 11.11 |
| Total Individuals Worked[In Lakhs] | 16.41 | 24.7 | 15.68 | 15.73 |
| Differently abled persons worked | 6143 | 7855 | 5719 | 5458 |

Source: www.nregasp2.nic.in

Works undertaken

Apart from generating employment, MGNREGA also aims at creating rural assets that will strengthen the rural infrastructure base. With passing phases, the government also acknowledged the importance of assets created under the program in enhancing the livelihood opportunities of the rural populace and hence actively involved itself in planning of more needful assets. In this financial year, keeping in mind the recurring drought like situation in most of the districts of the state in past few years, one of the

foremost challenges in front of the government was to provide sustainable water resource to smoothen up the agricultural activities in rural Jharkhand. For this, the government successfully created 1.06 Lakh dobhas across the state under the program. A total of 2,00,887 completed assets have already been created this year and hopefully the end of the financial year will witness a substantial growth in this parameter compared to last years. In addition to this, about 4.96 lakh works are under construction across various categories of assets suggested in the guideline.

Table 4.11: Details of Work undertaken under MGNREGA

| Works | FY 2017-2018 | FY 2016-2017 | FY 2015-2016 | FY 2014-2015 |
|--|--------------|--------------|--------------|--------------|
| Total No. of Works Takenup (New+Spill Over)[In Lakhs] | 6.94 | 6.79 | 2.71 | 2.17 |
| Number of Ongoing Works[In Lakhs] | 4.96 | 4.58 | 2 | 1.54 |
| Number of Completed Works (Dec 2017) | 2,00,887 | 2,20,582 | 71,405 | 62,824 |
| % of NRM Expenditure(Public + Individual) | 55.64 | 74.6 | 65 | 62.23 |
| % of Category B Works | 75.77 | 54.68 | 32.21 | 27.1 |
| % of Expenditure on Agriculture & Agriculture Allied Works | 92.12 | 83.9 | 67.85 | 63.2 |

Source: www.nregasp2.nic.in

As mentioned earlier, the major focus of 2017-18 was to create assets that could provide sustainable irrigation facilities to the marginalized communities in rural Jharkhand. In the table below we can see 66.35 per cent of the total works were created under this category. Digging of Dobha or Farm ponds was the main highlight of the MGNREGA works this year which successfully retained water for the rural farmers during the dry months of the year. With the immediate benefits observed from the farm ponds, the government has planned to dig about 4 lakh Dobhas in the coming financial year. Dobhas have become an important asset for replenishing the ground water level and storing the running rain

water and conserving it for irrigation purpose in drier months of the year. People have also started fishing in these small dobhas which boosted their livelihood base in many ways. Other than this, assets under traditional water harvesting were also undertaken.

Under the works undertaken with convergence of programs as aim, strengthening of rural sanitation was the major focus. A total of 16,235 IHHL (individual household latrine) were built under the ambit of MGNREGA. Apart from this, 22,268 works are under progress, 25,555 works are sanctioned and 4194 works are identified but under process for sanction.

Table 4.12: Types of work Completed in Jharkhand in 2017-18

| Category of Asset | Implementing Agency | | | Total | Percentage |
|--|---------------------|-----------------|-----------------|--------|------------|
| | Gram Panchayat | Zilla Panchayat | Zilla Panchayat | | |
| Flood Control | 74 | 10 | 0 | 84 | 0.04 |
| Rural Connectivity | 1074 | 81 | 0 | 1155 | 0.57 |
| Water Conservation And Water Harversting | 42456 | 144 | 47 | 42647 | 21.23 |
| Renovation of Traditional Water Bodies | 810 | 37 | 2 | 849 | 0.42 |
| Drought Proofing | 90 | 9 | 22 | 121 | 0.06 |
| Irrigation Canals | 319 | 5 | 0 | 324 | 0.16 |
| Irrigation Facilities To SC/ST/IAY/LR | 133152 | 131 | 0 | 133283 | 66.35 |
| Land development | 3367 | 10 | 1 | 3378 | 1.68 |
| Other works | 2638 | 94 | 79 | 2811 | 1.40 |
| Rural Sanitation | 15935 | 300 | 0 | 16235 | 8.08 |
| Total | 199915 | 821 | 151 | 200887 | 100 |

Source: www.nregasp2.nic.in

Lately, the government realized the potential of MGNREGA assets in effective natural resource management and hence the state witnessed a major concentration of works under this category. In the current financial year, 93,658 works have been

already completed under this category and 1,05,505 works are under progress across 206 blocks of the state. This accounts for about 35 per cent of the total work undertaken in this financial year. Apart from this 1506 works of plantation are underway in 17 districts of the state.

Table 4.13: Types of assets created under NRM (National Resource Management)

| Community Asset | Individual Asset |
|--|---------------------------|
| Boundary Plantation | Boundary Plantation |
| Check dam | Contour bunds |
| Community Farm Pond Deepening | repair of Flood Channels |
| Community well for irrigation | Dug wells |
| Construction of intermediate and link drains | Earthen Gully Plug |
| Contour Bund | Farm Bunds |
| Deepening and repair of Flood Channels | Field channel |
| De-silting of Flood channels | Horticulture |
| Diversion Drain | Land development |
| Drainage Channels | Land leveling and shaping |
| Dug wells | Lift irrigation |
| Earthen bunds | Soak Pit |
| Mini percolation tank | |
| Plantation | |
| Afforestation | |
| Stop dam | |

Source: www.nregasp2.nic.in

Other major Initiatives under MGNREGA

MGNREGA has gone through major transformation from its introduction in terms of process of implementation, awareness creation, grievance redressal and types of assets to be created. One of the main reasons behind the success of MGNREGA in the state are the innovative initiatives taken for better outcome every year. These include introduction of cluster facilitation team, dedicated MGNREGA planning cell, introduction of block level NREGA Sahayta Kendras, use of grassroot functionaries in the management of the program, geo-tagging and overall bottom up approach planning through yojna banao abhiyan.

Geo-Tagging of assets

GeoMGNREGA is a software solution to Photo

Geotag all completed assets under Mahatma Gandhi by the use of space technology and to integrate the details of the wage and material into the public domain to ensure transparency and accountability. The objective of GeoMGNREGA is to create a Geographical Information System (GIS) solution to visualize, analyze and explore the data of assets created under the MGNREGA. It essentially enables one to view the assets created under MGNREGA across the state on a map. GeoMGNREGA leverages ‘Bhuvan’, the software platform developed by National Remote Sensing Centre (NRSC) of ISRO for this purpose. A total of 5,37,924 (about 61 per cent of the total assets) assets have been already geotagged and are being monitored. In the current financial year 3371 new assets were received for geotagging out of which 915 assets have already started to be monitored.

Table 4.14: Progress of GEO-MGNREGA in the state

| S No. | District | Total Assets Received From NRSC To NREGASOFT | Assets Not Yet Updated At NREGASOFT | Assets Updated | Assets Updated & Sent To NRSC |
|-------|----------------------------|--|-------------------------------------|----------------|-------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Bokaro | 221 | 151 | 42 | 23 |
| 2 | Chatra | 216 | 211 | 0 | 5 |
| 3 | Deoghar | 742 | 740 | 1 | 1 |
| 4 | Dhanbad | 80 | 45 | 1 | 34 |
| 5 | Dumka | 19 | 19 | 0 | 0 |
| 6 | East Singhbhum | 676 | 675 | 0 | 1 |
| 7 | Garhwa | 20 | 20 | 0 | 0 |
| 8 | Giridih | 31 | 28 | 3 | 0 |
| 9 | Godda | 56 | 56 | 0 | 0 |
| 10 | Gumla | 13 | 13 | 0 | 0 |
| 11 | Hazaribagh | 10 | 6 | 1 | 3 |
| 12 | Jamtara | 39 | 37 | 1 | 1 |
| 13 | Khunti | 743 | 107 | 326 | 310 |
| 14 | Koderma | 2 | 2 | 0 | 0 |
| 15 | Latehar | 23 | 22 | 0 | 1 |
| 16 | Lohardaga | 43 | 21 | 0 | 22 |
| 17 | Pakur | 43 | 43 | 0 | 0 |
| 18 | Palamu | 16 | 16 | 0 | 0 |
| 19 | Ramgarh | 7 | 7 | 0 | 0 |
| 20 | Ranchi | 60 | 60 | 0 | 0 |
| 21 | Sahebganj | 220 | 81 | 0 | 139 |
| 22 | <u>Saraikela Kharsawan</u> | 67 | 67 | 0 | 0 |
| 23 | <u>Simdega</u> | 4 | 4 | 0 | 0 |
| 24 | <u>West Singhbhum</u> | 20 | 20 | 0 | 0 |
| | Total | 3371 | 2451 | 375 | 540 |

Source: www.nregasp2.nic.in

Major focus on direct cash transfer

To increase the transparency in wage payment and to reduce the incidence of corruption through middlemen, hundred per cent wage payments are done through aadhar linked bank accounts. In another initiative to centralize the process, about 97 per cent of the post office account has been transferred to banks

Cluster Facilitation Team

Pradan is project partner in the CFT project in thirteen blocks of Jharkhand, since 2014. The Cluster Facilitation Teams are recruited, paid and monitored by the Block Level Federations (MahilaVikasMandal) building on decades of our work with Self Help Groups in the region. Through this project, we estimate to have reached 1,116 villages and nearly 1,10,000 households. Through several rounds of self-reflection with multiple

stakeholders, we have attempted to distill learnings that would be of bearing for the CFT project and MGNREGA.

To summarize, the following are some concrete achievements over the past three years:

1. The CFTs have assisted in making about 25,000 new job cards, and opening about 48,000 bank accounts, as well as assisted in the seeding of aadhaar numbers, freezing account details, transferring to banks and so on.
2. There is a significant increase in the participation of women in Gram Sabhas as well as on MGNREGA works. This is the most marked in Basia, where the women person days increased from 25 per cent in 2014 to 40 per cent in 2016.
3. Demand registration has been revived through mates and CFTs, with Rozgar Diwas at the Gram Panchayat Bhawan. This is reflected in the 47 per cent jump in person days between 2013-14 and present, as well as more active workers.
4. Unemployment allowance has been paid six times in five blocks over the last six months, amounting to lakhs of rupees, an achievement that is unprecedented to date.
5. 3,224 women mates have been transparently and correctly selected through the SHGs, and out of them 2,614 have been registered on the MIS.
6. The CFTs have served on the State, District, Block and Panchayat Resource Teams as part of the Intensive Participatory Planning Process (IPPE) and Yojana Banao Abhiyan process, thus providing crucial technical support to state wide practices.
7. The impact of this is borne out in the subsequent focus on Natural Resource Management works taken up, with an increase of almost 20 per cent in the share of total works.
8. There is an increase in oversight by Gram Panchayats and their empowerment to exercise their statutory powers. This was evident in the case of Hatnatodang Panchayat in Chakradharpur that resisted the construction of works, which were not as per the Gram Sabha priorities.
9. The practice of muster rolls being a prerequisite before starting of works, and consequently reducing wage delays is also evident. All Block Programme Officers interviewed mentioned some plan to monitor work sites.
10. Wage delays, at the block level till the second signatory on the FTO, have also considerably reduced, from 30 per cent to 10 per cent.
11. For the sustainability of these processes, we have focused on training and guiding workers to directly file complaints with the administration. The establishment of MGNREGA Sahayta Kendras, as bridges between workers and the block administration has demonstrated a model for facilitating grievance redress.
12. The Block Coordination Committees are now functional platforms, for weekly stock taking of the implementation of the programme.

The CFT project has contributed fundamentally to the practice of civil society engagement with the state at all levels. The importance of the concept of facilitation has been recognised and demonstrated, and through it, a national resource pool has been created. Further an iterative process of policy reform, whether at the Block, State or National level has been established. This has not been without significant challenges, and in light of those, the following are some of the strategies to be adopted in the coming financial year:

1. Based on the demonstrated impact, extend the CFT project to further 250 backward blocks and to provide expert technical support. However, stricter standards for timely fund release across administrative levels are imperative for the project to succeed. The delays in funds for the CFT project has led to unnecessary attrition and demotivation, given that the bulk of these funds are to support salaries of the CFTs.
2. In the existing 250 CFT blocks, channel the resource pool created through this exercise to be retained as technical secretariats to the Gram Panchayats. Administrative funds from MGNREGA or funds earmarked for human resources from the 14th Finance Commission recommendations may be used.
3. MGNREGA Sahayta Kendras is a veritable model from Jharkhand for facilitation of workers' complaints, and for overall accountability systems. This may be incorporated in the project and extended to all 250 blocks.
4. Encourage state governments to set up strong grievance redress systems. Consider a MIS (Management Information System) report on the imposition of fines under Section 25 of

the MGNREGA.

5. Tinkering of fund flow systems of MGNREGA causes immense disruption. Such decisions should be taken consultatively, involving all stakeholders and not without putting in place systems for troubleshooting and alternatives. Practical primers of using the MIS from a worker point of view should be developed and disseminated.
6. The centralization of processes via the MIS has led to a usurping of the statutory powers of the Gram Panchayat and the State Department. An audit of the MIS processes vis a viz the provision of the law at this stage is recommended for course correction.
7. The practice of work demand should be revived through the multiple modes described in the Annual Master Circular 2017-18. Defects in the 'Online Demand' and 'Worker Module' may be rectified and these worker friendly mechanisms be widely publicized. At the same time, the culture of updating job cards and pass books by field functionaries must be emphasized.
8. The setting of targets for types of works at any administrative level should be abandoned. The sanctity of the statutory processes of decentralisation must be kept up to sustain the revival of the role of the Gram Panchayat and the functioning of Gram Panchayat Bhawan.
9. Establish a concrete skill ladder, from MGNREGA workers, to mates to Barefoot Technicians, to Cluster Facilitation Teams as technical secretariats to the Gram Panchayat.
10. Consider generating MIS reports on mate and BFT specific job cards, with the number

of days worked, the work code and payment received.

11. Increase the MGNREGA wage rate for Jharkhand and subsequently revise the wage rate as per clear norms. The gap between MGNREGA and other rural wages implicitly encourages collusion and corruption and discourages genuine workers.
12. The MIS should display a report on entire wage payment cycle, including delays beyond the second signatory on the FTO, and the corresponding compensation due.
13. The monitoring mechanisms with the CFT project, via platforms like the Block, District

and State Coordination Committee need to be taken seriously. Apart from resolving issues, these platforms are important avenues for receiving feedback to reform overall MGNREGA processes.

14. The programmatic convergence with the National Rural Livelihood Mission has been largely absent and should be fleshed out more thoroughly.
15. The State Employment Guarantee Council may be asked to conduct independent evaluations into the functioning of the project and draw up plans for expansion to further backward blocks.

Box 4.2 : Successful experimentation of SHG MGNREGA Mates

Supervision and monitoring by MGNREGA mates is extremely important for successful implementation of MGNREGA works as per the needs and demands of beneficiaries and workers. Therefore, it is extremely crucial that there should be sufficient number of well-trained mates in each tola in each village.

1. In Jharkhand, there is tremendous focus upon ensuring that at least 50% of these mates are women.
2. In the selection of these women mates, the members of local Self Help Groups are given preference.
3. The women SHG mates are selected by the Gram Sabha. After providing training to them, they are handed over the task of implementing the schemes.
4. In addition, wherever Cluster Facilitation Teams are operational, only women SHG mates are being selected and registered.
5. In every hamlet/village, for every 40 households, at least one mate is being selected and trained.
6. The selected mates will work for a maximum of 3 years.
7. In Jharkhand, elaborate guidelines have been issued regarding the selection, training, registration, roles and responsibilities of mates.
8. In Jharkhand, nearly 58,400 women SHG mates have been trained and they are being employed for execution of various schemes under MGNREGA.

‘Empowered women, Empowered Society’ these lines are being brought to life today by the women SHG mates. The employment of women SHG mates has not only increased transparency but also made the women more self independent.

MGNREGA Sahayta Kendra

The state of Jharkhand is still a difficult state for program implementation with many hard to reach areas. To bridge this gap and make the program effective and penetrable to the last beneficiary, in case of MGNREGA, Sahayta Kendras (Facilitation/ Help Centres) have been set up in some of the blocks of the state. These sahayta kendras bring transparency in the implementation of the program making grievance redressal at grassroots level effective and powerful by recognizing the local bottlenecks easily. For the success of a demand driven program like this, the centers also focus in raising awareness about the components and rights of the MGNREGA workers under the program. From the past few years, it has been seen that the presence of these centres in certain blocks have made the process implementation quicker and smoother due to clarity about the program among its beneficiaries. With this success record the department of rural development has decided to open such Sahayta Kendras in every block of the state. Currently, the department has signed MoUs with fifteen local labour confederations, Macro SHGs and Community federations for setting up of new Sahayta Kendras.

Main proposed function of Sahayta Kendras :-

- Increase the accountability of implementers at block and panchayat level
- Raising awareness about the components of the program and rights of the MGNREGA workers

- Being an intermediary platform to recognize the bottlenecks in implementation and payment related issues.
- Strengthening and smoothening the grievance redressed system at grassroots level

Rural Irrigation

Jharkhand being a predominantly a rural state, agriculture is still the most important source of livelihood. This is the reason why the government is investing most of its effort in providing the required resources for better agricultural outcome. Considering that 59 per cent of the workforce depends on agriculture directly or indirectly, investment in agriculture and an increase in farmer's income will be the backbone for reducing rural poverty and improving the quality of life of people living in rural areas. Jharkhand is a state with very uneven terrain, thus about 70 per cent of the rain water flows away unused. On the other hand, only 10-15 per cent of the agricultural land falls in the natural irrigation belt. Thus, the state government tries to benefit most out of the government irrigation programs to enrich this sector of the economy. There are two major programs through which works of strengthening the irrigation infrastructure is carried out; 1) Pradhanmantri Krishi Sichayi Yojna and 2) Niranchal National Watershed Yojna.

Pradhanmantri Krishi Sichayi Yojna

Under this program, the state government successfully developed 927 micro- watershed

projects across 117 clusters in 24 districts of the state. The program is being implemented by the respective gram sabhas which nominates a watershed development committee for each panchayat. A component of this program is also supporting young people to get diplomas in watershed management, so that the created assets can be used efficiently and sustainably. In the last five years, works like bunding, contour trenching, kuchha check dam devolvement and construction of farm ponds are being carried out under this program. The Jharkhand Watershed Mission is the nodal agency implementing the IWMS scheme running 144 projects covering an area of about 300,000 ha., impacting about 5,000 villages across all 24 districts. Additionally, the State is also implementing NABARD supported watershed works that have shifted focus from the regular “saturation” approach to a village-based approach. The project is set to impact over 1,000 villages by 2019. Until now, works for construction of 5744 rain watershed projects are ongoing which will cover 6,415 hectares of agriculture land with irrigation.

Niranchal National Watershade Yojna is also a centrally managed program funded by the World Bank. This program gives technical support to the ongoing works under PKSY. The watersheds, check dams and canals in Jharkhand are made specially in “Ridge to Valley” concept. To implement this concept scientifically by selecting the location of the projects, technical help is provided by this program.

Rural Infrastructure

Rural connectivity through roads and bridges plays a catalytic role in socio-economic development of a region. Especially in a state like Jharkhand where a major part of the rural region falls under hard to reach area and big urban centers are unplanned, the efficient public service delivery and receptiveness of the developmental programs depends heavily on the connectivity of the remote areas with development hubs of the state. Department of rural development through its rural work division is committed to connect all parts of the state with all weather infrastructure. Up till the current financial year, 25,200 villages out of a total of 36,827 villages in Jharkhand have been connected with all weather roads. In 2016-17, the department has spent Rs. 1009.57 crore and successfully constructed 2054 kilometers of rural road through its state schemes, whereas through centrally sponsored scheme, the state got 1370 km of concrete rural roads. In the current financial year, the department has completed construction of about 2500 km rural roads against targeted 5000 km. Through Mukhyamantri Gram Setu Yojna- a state sponsored scheme, the rural work division has successfully constructed 69 bridges with a length of 20 meters each connecting about 900 villages. In addition to this, in TSP areas, construction of 208 small bridges is on the way across all the districts of the state. Similarly under OSP, construction of 95 bridges are also under process. To improve the quality and design of the bridges, on the line of PMGSY, MGSY is also planning to hire technical consultancy services from non-governmental firms.

Table 4.15: Physical Progress of works under Rural works division

| State Sponsored Scheme | | | | | | |
|--------------------------|----------------------------|-----------|-------------|----------------------------|-----------|-------------|
| Year | Number of roads | | | Length of roads | | |
| | Target (Without spillover) | Completed | In Per cent | Target (Without spillover) | Completed | In Per cent |
| 2011-12 | 160 | 132 | 82.5 | 1200 | 860 | 71.6 |
| 2012-13 | 215 | 206 | 95.8 | 1500 | 1326 | 88.4 |
| 2013-14 | 260 | 215 | 82.6 | 1500 | 1042 | 69.5 |
| 2014-15 | 360 | 344 | 95.5 | 1500 | 1311 | 87.4 |
| 2015-16 | | | | 1500 | 2051 | 136.7 |
| Central Sponsored Scheme | | | | | | |
| Year | Number of roads | | | Length of roads | | |
| | Completed | | | Target (Without spillover) | Completed | In Per cent |
| 2011-12 | 230 | | | 2000 | 1123 | 56.15 |
| 2012-13 | 434 | | | 2000 | 1242 | 62.1 |
| 2013-14 | 189 | | | 2000 | 1007 | 50.35 |
| 2014-15 | 463 | | | 2000 | 1748 | 87.4 |
| 2015-16 | 609 | | | 1340 | 1370 | 102.22 |
| Bridge Construction | | | | | | |
| Year | Number of Bridges | | | | | |
| 2011-12 | 111 | | | | | |
| 2012-13 | 105 | | | | | |
| 2013-14 | 83 | | | | | |
| 2014-15 | 97 | | | | | |
| 2015-16 | 153 | | | | | |

Source: Department of Rural Development, Government of Jharkhand

Panchayati Raj

As we have seen, the pathway of program implementation is heavily dependent on decentralization of activities and hence it is important

for the government to strengthen our Panchayati Raj Institutions. The formation of three tier rural governance was a historical step as per the 73rd amendment. Jharkhand has also followed suit and have conducted Panchayat polls twice in the state.

Table 4.16 : Details of three tier Panchayati Raj System in Jharkhand

| Panchayati Raj Institutions | Number | Reserved Seats | Partial Reserve Seats | Unreserved Seats |
|-----------------------------|--------|----------------|-----------------------|------------------|
| Jila Parishad | 24 | 13 | 3 | 6 |
| Panchayat Samiti | 263 | 134 | 1 | 128 |
| Gram Panchayat | 4398 | 2067 | 0 | 2331 |

Source: Department of Rural Development, Government of Jharkhand

Main activities of Panchayat Raj division

- The Panchayati raj division prepared the framework for strengthening of rural local governance through decentralization process.
- It also frames the rules and regulation guidelines for the grass root institutions.
- It conducts training programs for the representatives and staffs of PRI. In the current financial year, all the representatives had induction training, 249 staffs have been trained with SRT manual, 14,920 panchayat sevaks have been trained with GPDG guidelines and training programs for all ward members was conducted on 22 January 2017.
- It also facilitates the process of convergence of PRIs with other departments for program implementation.
- As accorded by the constitution, Panchayati raj institutions carry out works in the respective panchayats categorized under 29 subjects like agriculture, land development, social forestry, fishing, poultry, drinking water, poverty alleviation programs etc.

Other Programs

- **R-SETI** – With the introduction of wide scale project like JOHAR, government is preparing itself to make the youth of the state self sufficient. In this direction, the department has already started to develop entrepreneur skills among youth by imparting them technical trainings, so that they can open their own ventures in rural setup. In Jharkhand, there are 24 operational RSETIs in each district and a Rural Development & Self

Employment Training Institute (RUDSETI) in Silli Ranchi. A total of 676 training were conducted in which a total of 19,605 candidates were trained across Jharkhand. Since inception till FY2016-17, a total of 2,880 trainings have been conducted with 85,030 candidates trained through the RSETI program.

- **Kudumbashree MEC model-** The State is adapting the successful Kerala Micro Enterprise Consultants (MEC) model to the conditions in Jharkhand. Currently, 850 enterprises have been set up under this project, and a total of 2,400 enterprises are to be promoted by FY2019-20.
- **Vidhayak Yojna-** This program was specially developed to bridge the gaps that are not covered under the ambit of other mainstream developmental programs. In 2015-16, two schemes namely Sansad Aadarsh Gram Yojna and Mukhya Mantri Vikas Yojna were converged to form a single program called Vidhayak Yojna. Works like construction of local connecting roads, construction of drains, community building irrigation resources etc are carried out. With the success of program implementation under vidhyak yojna, the amount allocated to each vidhayak increased from Rs 3 crore to Rs 4 crore. Out of this amount, 1 crore is planned to be spent on strengthening the irrigation facility in rural areas of their respective constituencies.

The department is also continuing to encourage the bottom up approach of program planning. To strengthen its roots the proceeds under the 14th finance commission is also utilized to form special local committees in cluster panchayat level.

Conclusion

The state has achieved its short term goals of not only implementing effective programs but framing the national level programs as per the local needs, so that the rural population base becomes a holistic institution for overall development of the rural area. The convergence of components of different programs is helping to realize their individual

strength as well as complementing each other to reach a common goal which is proving to be effective. The state is also on the way to strengthen its grievance redressal cell, so that the problems of implementation at different levels can be mitigated and the efficacy of the program can be increased. If these short term achievements of the department can be carried out in a sustained manner, then it will contribute to the broader vision of the government.

V

URBAN DEVELOPMENT



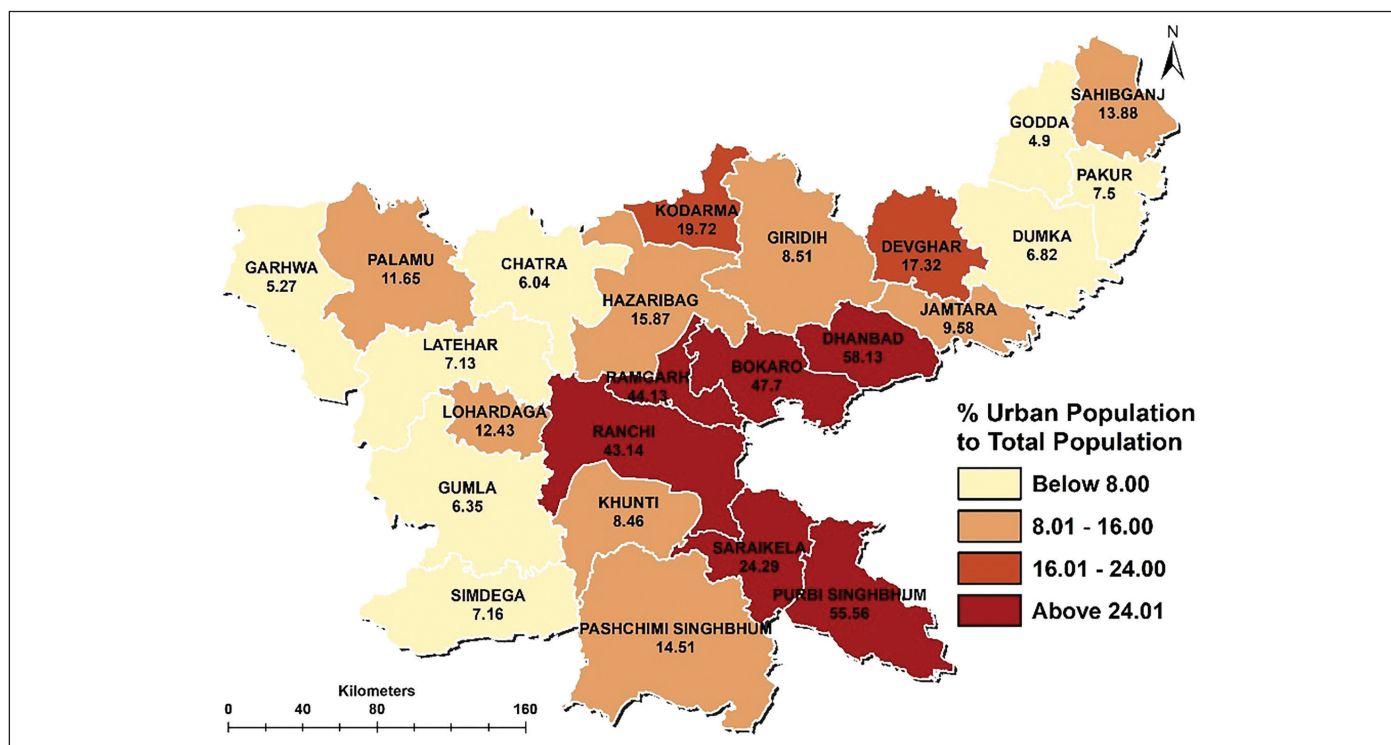
Urban areas are regarded as the epicentres of economic development which act as spatial cores and development is supposed to percolate or trickle down from these cores to the rural hinterlands. The level of urbanization of any region indicates the proportion of people residing in urban vis-à-vis the rural areas. It also portrays the level of overall socio-economic development of a given region as urbanization and economic development are supposed to go hand in hand. The overall level of urbanization in the state of Jharkhand is 24.05 per cent according to the Census of India 2011 which, as compared to the national average of 31.14 per cent, remains below the level of urbanization of the country. With a majority of its population being predominantly rural and high decadal growth rates of urban population which according to Census 2001-2011 was as high as 32.36 per cent, Jharkhand faces the prospective situation of a snowballing urban population during the forthcoming decades. Such projections of mounting urban population

are certain to be escorted by urban challenges. Urban housing is one of the key challenges that the expanding urban population face apart from the provision of other basic housing amenities.

Urban population in Jharkhand:

The spatial distribution of the urban population in Jharkhand portray a stark regional disparity among the districts wherein the district-wise levels of urbanization range from 58 per cent in Dhanbad to 5 per cent in Godda as per the Census of India 2011. The five highly urbanised districts which fare better as compared to the national average are Dhanbad (58.13 per cent), Purbi Singhbhum (55.56 per cent), Bokaro (47.70 per cent), Ramgarh (44.13 per cent) and Ranchi (43.14 per cent). Apart from these, Saraikela-Kharsawan district (24.29 per cent) is also more urbanised as compared to the state average. These six districts form a continuous belt of development in Jharkhand which is primarily the mining-industrial and urban belt of the state

Map 5.1: District-wise levels of urbanization in Jharkhand, 2011

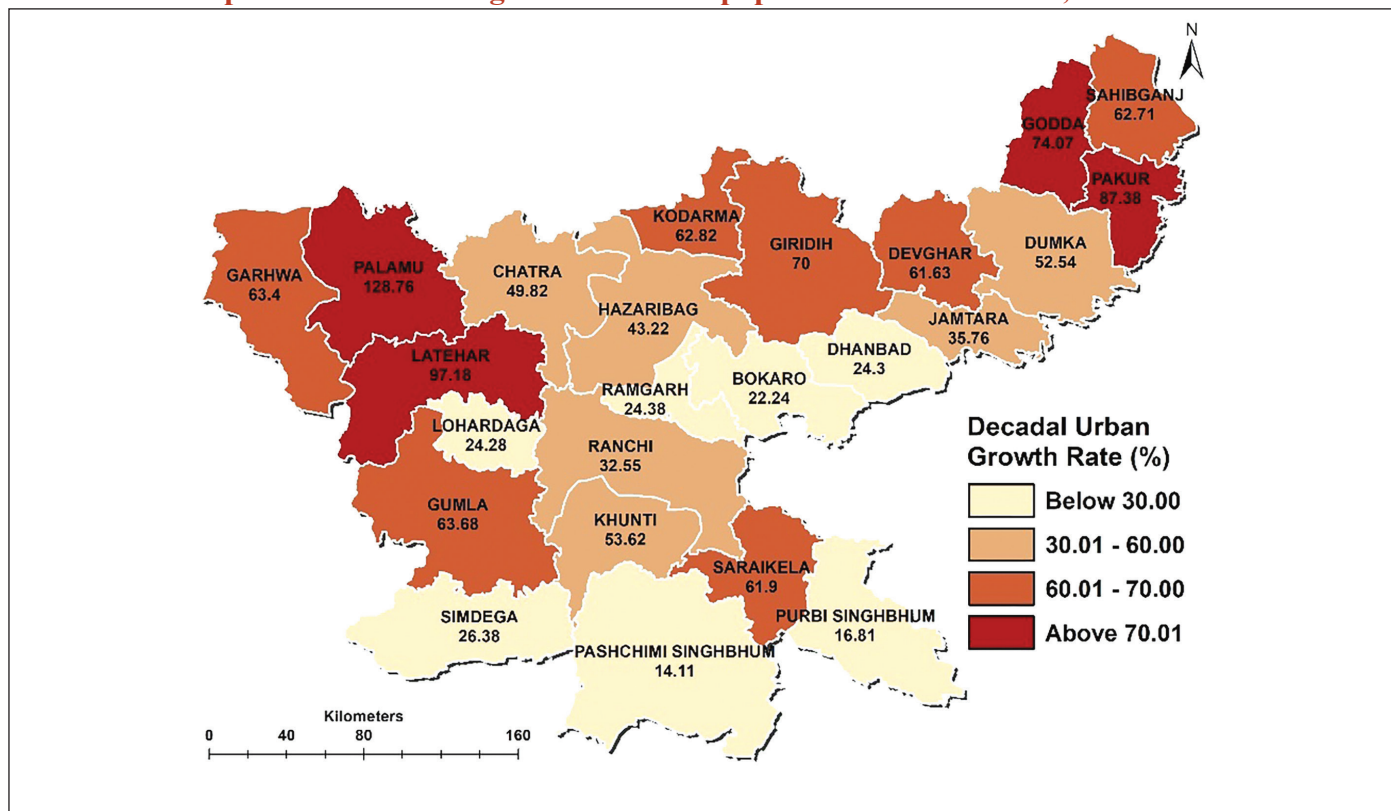


Source: Computed from Primary Census Abstract, Jharkhand, Census of India, 2011

where most of the developmental activities are concentrated and therefore it forms a continuous spatial core. A stark contrast exists among this core and the other peripheral districts in Jharkhand which have extremely low levels of urbanisation such as Godda (4.90 per cent), Dumka (6.82 per cent) and

Pakur (7.50 per cent) in the Santhal Parganas region, Garhwa (5.27 per cent), Chatra (6.04 per cent) and Latehar (7.13 per cent) in the north-western part and Gumla (6.35 per cent), and Simdega (7.16 per cent) in the south-western part of the state.

Map 5.2: District-wise growth of urban population in Jharkhand, 2001 - 2011



Source: Computed from Primary Census Abstract, Jharkhand, Census of India, 2011

The district-wise growth of urban population in Jharkhand depicts that apart from Palamu district, which recorded a massive decadal urban growth rate of about 129 per cent during 2001-2011 Censuses, other districts of Latehar (97.18 per cent), Pakur (87.38 per cent) and Godda (74.07 per cent) also have registered very high urban growth rates (Map 5.2). Districts with extremely low levels of urbanization have recorded massive absolute urban growth. Such speedy population increase in less developed urban areas will hinder the overall socio-spatial development of the urban centres. Such urban centres cannot be expected to become development cores and diffuse regional development in the

respective peripheries.

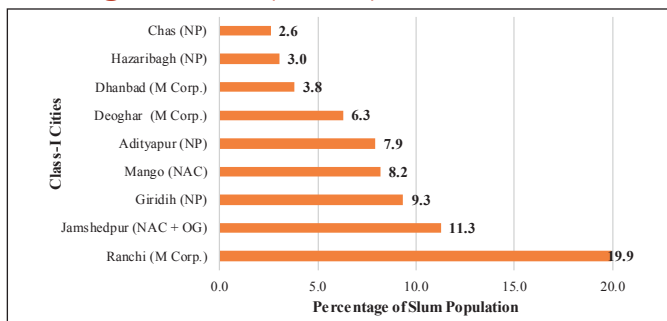
Distribution of slum population in Jharkhand by cities and towns:

The most notable ramification of a soaring growth of urban population which is spatially confined in a limited number of urban centres is the copious rise of the urban poor which is not only residentially deprived but also face deprivation in terms of other housing amenities while residing in slums and squatters. The total urban population of Jharkhand residing in urban slums was 372,999 and total slum households were 72,554 as per the Census 2011.

- **Distribution of slum population among the Class-I Cities:**

The distribution of slum population among the size-class cities and towns of Jharkhand, as per the Census 2011, depicts that about 72.38 per cent of the total slum population of Jharkhand resides in the class-I cities alone, each of which has a population of 1,00,000 and above. Ranchi city has the highest share of slum population (19.92 per cent) followed by Jamshedpur (11.27 per cent) and Giridih (9.3 per cent) (Figure 5.1). Bokaro Steel City is the only class-I city which does not have any recorded slum population as per the Census of India 2011.

Figure 5.1: Distribution of slum population among the Cities (Class-I) of Jharkhand, 2011



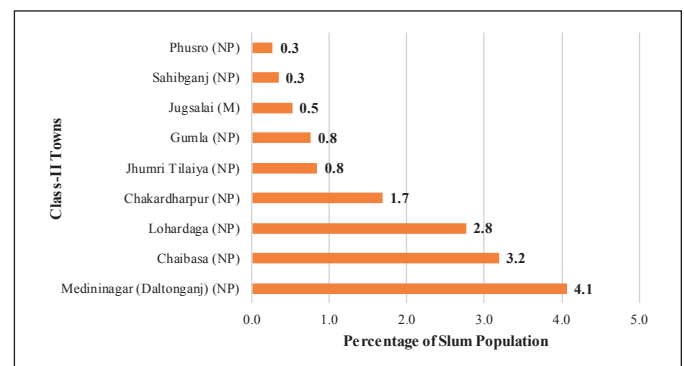
Source: Computed from Town Directory, Jharkhand, Census of India, 2011

- **Distribution of slum population among the Large towns (Class-II):**

The distribution of slum population among the large towns (class-II) of Jharkhand, as per the Census 2011, reveal that about 14.4 per cent of the total slum population of Jharkhand resides in the class-II towns which are considered as the large towns with a population of 50,000 - 99,999 in each town. The town of Medininagar, the erstwhile Daltonganj town, in Palamu district, has the highest share of slum population (4.1 per cent) among the class-II towns followed by Chaibasa (3.2 per cent) in Pashchimi Singhbhum district and Lohardaga town (2.8 per

cent) in Lohardaga district (Figure 5.2).

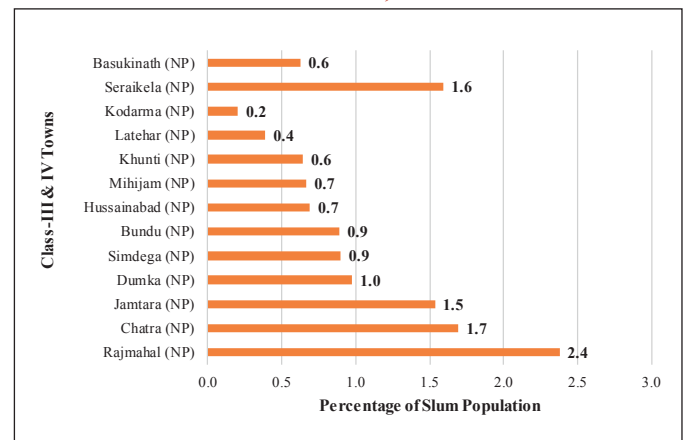
Figure 5.2: Distribution of slum population among the Large towns (Class-II) of Jharkhand, 2011



Source: Computed from Town Directory, Jharkhand, Census of India, 2011

- **Distribution of slum population among the Medium towns (Class- III and IV):**

Figure 5.3: Distribution of slum population among the Medium towns (Class-III & IV) of Jharkhand, 2011



Source: Computed from Town Directory, Jharkhand, Census of India, 2011

The distribution of slum population among the medium towns (class-III and IV) of Jharkhand, as per the Census 2011, depicts that about 13.2 per cent of the total slum population of Jharkhand resides in class-III and class-IV towns which are considered as the medium sized towns with a population of 20,000 - 49,999 in each class-III town and 10,000 - 19,999 in each class-IV town. The town of Rajmahal in Sahibganj district of the Santhal Parganas region has the highest share of slum population (2.4 per cent)

among the medium towns followed by the town of Chatra (1.7 per cent) in Chatra district and Saraikela (1.6 per cent), which is a class-IV town, in Saraikela-Kharsawan district (Figure 5.3).

Saraikela town has a total population of 14,252 out of which the slum population is 5,941 that accounts for 41.7 per cent of the total population of the town which is highest for any town in Jharkhand. Saraikela is followed by Rajmahal in Sahibganj district which has 39.4 per cent of the total population of the town residing in slums. Among the class-I cities, the city of Giridih in Giridih district has the highest 30.4 per cent of the total population of the urban centre living in slums.

Status of urban housing condition in Jharkhand:

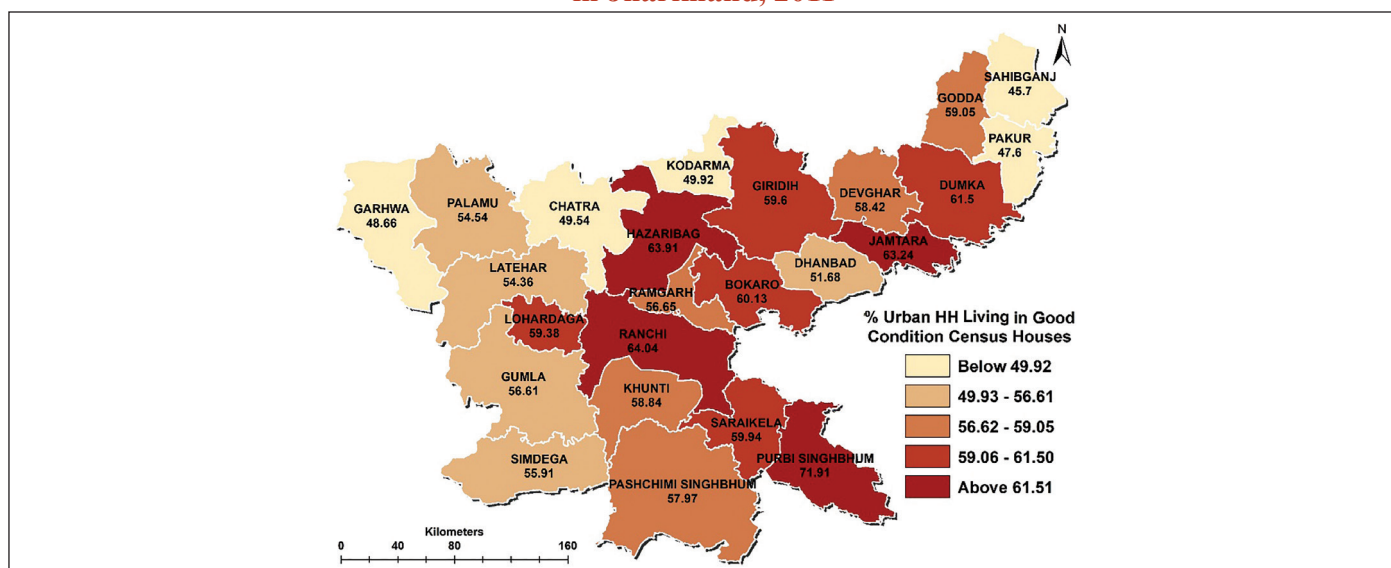
Urban housing is one of the major challenges, along with deprivation in terms of other housing amenities that the mounting urban population faces in the urban centres. The Census of India classifies Census houses by their condition and categorizes them as ‘good’, ‘liveable’ and ‘dilapidated’. According to the Census of India, the households residing in

dilapidated houses need immediate attention.

- **Urban households residing in ‘Good’ Census houses:**

The district-wise distribution of urban households depicts that Purbi Singhbhum district has the highest proportion of urban households (71.9 per cent) living in Census houses which were reported to be in ‘good’ condition. The state of Jharkhand has on an average 59.9 per cent of urban households residing in ‘good’ Census houses. The districts which have a higher proportion of such households as compared to the state average are Purbi Singhbhum followed by Ranchi (64 per cent), Hazaribagh (63.9 per cent), Jamtara (63.24 per cent), Dumka (61.5 per cent) and Bokaro (60.13 per cent). On the other hand, Sahibganj district in the Santhal Parganas region has the lowest proportion of urban households (45.7 per cent) living in Census houses which were reported to be in ‘good’ condition during the Census 2011. The other districts with a lower proportion of such households are Pakur (47.6 per cent), Garhwa (48.7 per cent), Chatra (49.5 per cent) and Koderma (49.9 per cent) which have less than half of the urban households living in ‘good’ Census houses (Map 5.3).

Map 5.3: District-wise urban households residing in ‘Good’ Census houses in Jharkhand, 2011

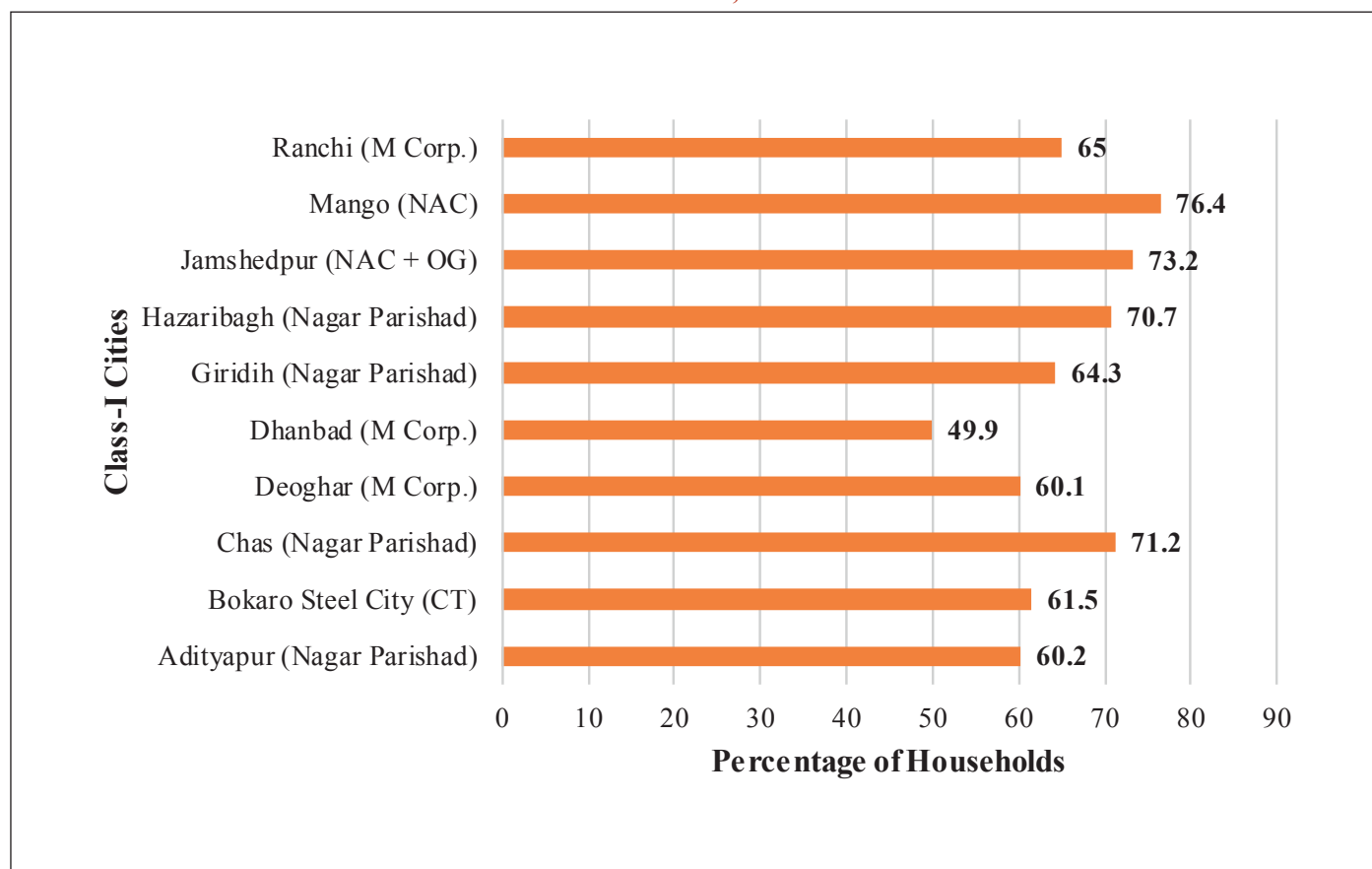


Source: Compiled from Census of India, 2011

The status of urban housing condition in the major cities of Jharkhand depicts that 62.5 per cent of the urban households residing in the class-I cities of Jharkhand lives in ‘good’ Census houses. There are total 10 class-I cities in Jharkhand. A city-wise review of the status of housing condition reveals that among the ten class-I cities of Jharkhand, the cities of Mango (76.4 per cent) and Jamshedpur (73.2 per cent) in the Purbi Singhbhum district have the

highest proportion of urban households residing in ‘good’ Census houses. The major city which is worse off, in this case, is Dhanbad Municipal Corporation in Dhanbad district which has the lowest proportion (49.9 per cent) of urban households living in ‘good’ houses among the other class-I cities of Jharkhand. Apart from Dhanbad, all the other class-I cities have more than 60 per cent of the urban households residing in ‘good’ Census houses (Figure 5.4).

Figure 5.4: Percentage of urban households residing in ‘Good’ Census houses in the class-I cities of Jharkhand, 2011



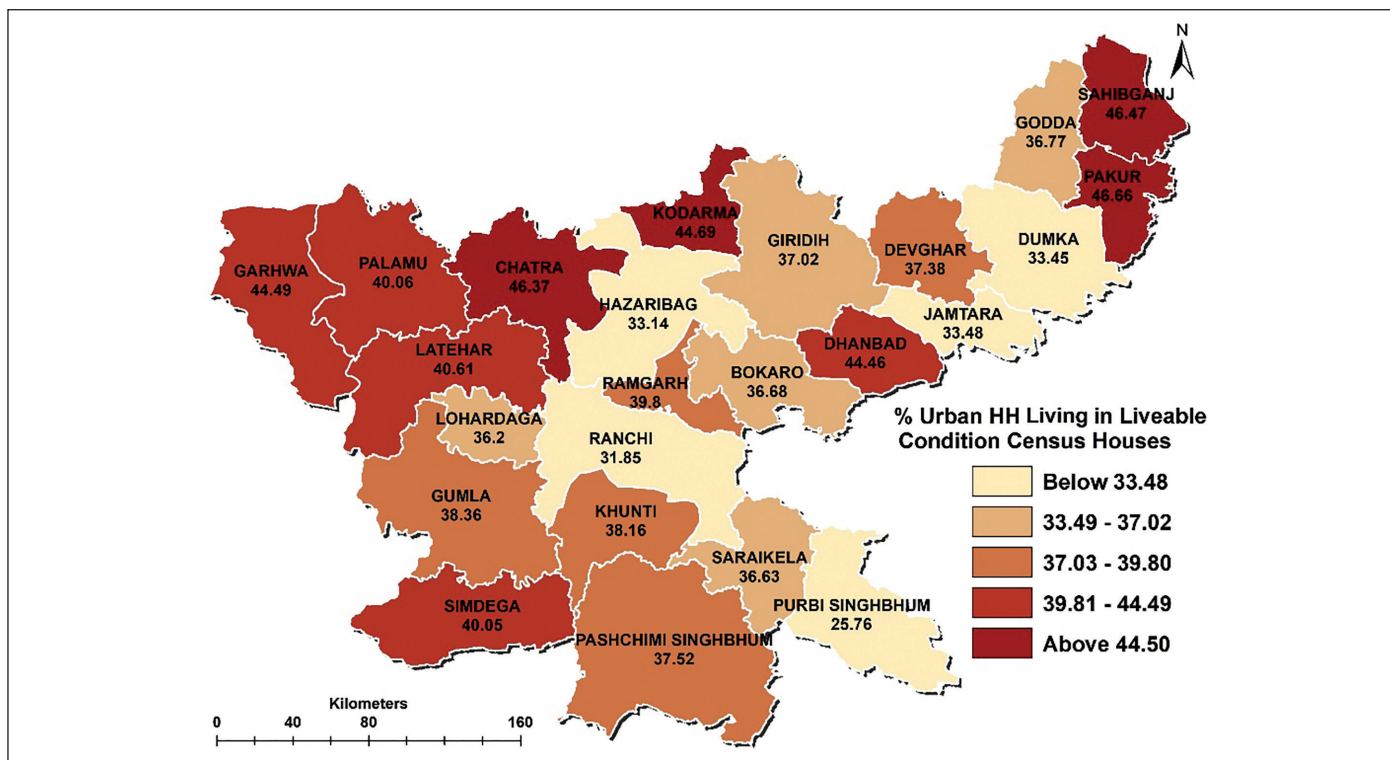
Source: Computed from Town Directory, Jharkhand, Census of India, 2011

- **Urban households residing in ‘Liveable’ Census houses:**

The district-wise distribution of urban households residing in ‘liveable’ Census houses depicts that the districts of Pakur (46.7 per cent) and Sahibganj (46.5 per cent) in the Santhal Parganas region have the highest proportion of urban households living in Census houses which were reported to be in

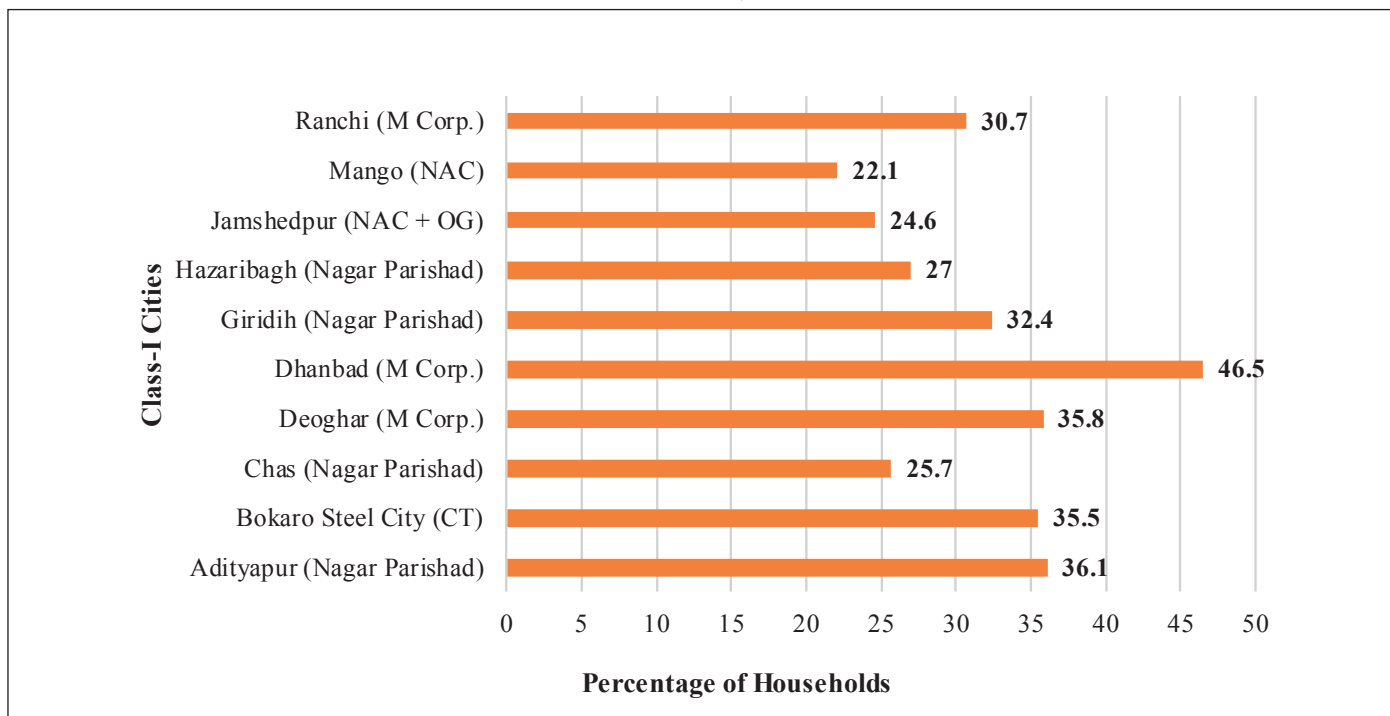
‘liveable’ condition. The state of Jharkhand has on an average 36.3 per cent of urban households residing in ‘liveable’ Census houses. The districts of Purbi Singhbhum (25.8 per cent) followed by Ranchi (31.8 per cent) and Hazaribagh (33.1 per cent) have a lower proportion of such households living in Census houses which were reported to be in ‘liveable’ condition during the Census 2011 (Map 5.4).

Map 5.4: District-wise urban households residing in ‘liveable’ Census houses in Jharkhand, 2011



Source: Compiled from Census of India, 2011

Figure 5.5: Percentage of urban households residing in ‘liveable’ Census houses in the class-I cities of Jharkhand, 2011



Source: Computed from Town Directory, Jharkhand, Census of India, 2011

The proportion of the urban households residing in ‘liveable’ Census houses in the class-I cities of Jharkhand is 34.2 per cent. A city-wise analysis of

the status of housing condition reveals that among the ten class-I cities of Jharkhand, the major city of Dhanbad in Dhanbad district has the highest

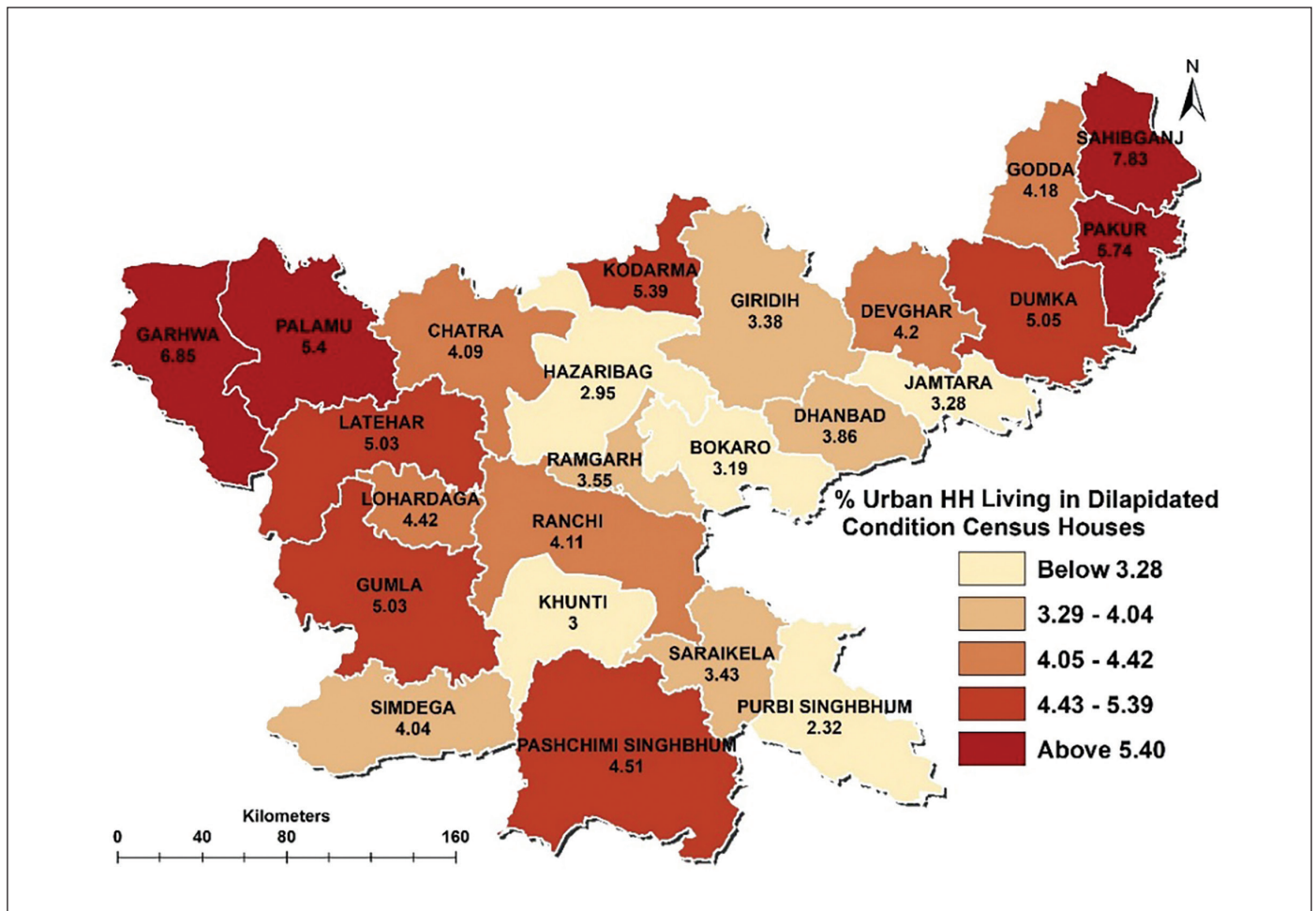
proportion (46.5 per cent) of urban households living in ‘liveable’ houses. The cities of Mango (22.1 per cent) and Jamshedpur (24.6 per cent) in the Purbi Singhbhum district, which mostly has people residing in ‘good’ houses, have the lowest proportion of urban households residing in ‘liveable’ Census houses among the other class-I cities of Jharkhand (Figure 5.5).

- **Urban households residing in ‘Dilapidated’ Census houses:**

The Census classifies such Census houses as ‘dilapidated’, the structure of which is in poor physical condition. These, according to the Census of India, require immediate attention due to the derelict structure of the houses. The district-wise distribution of

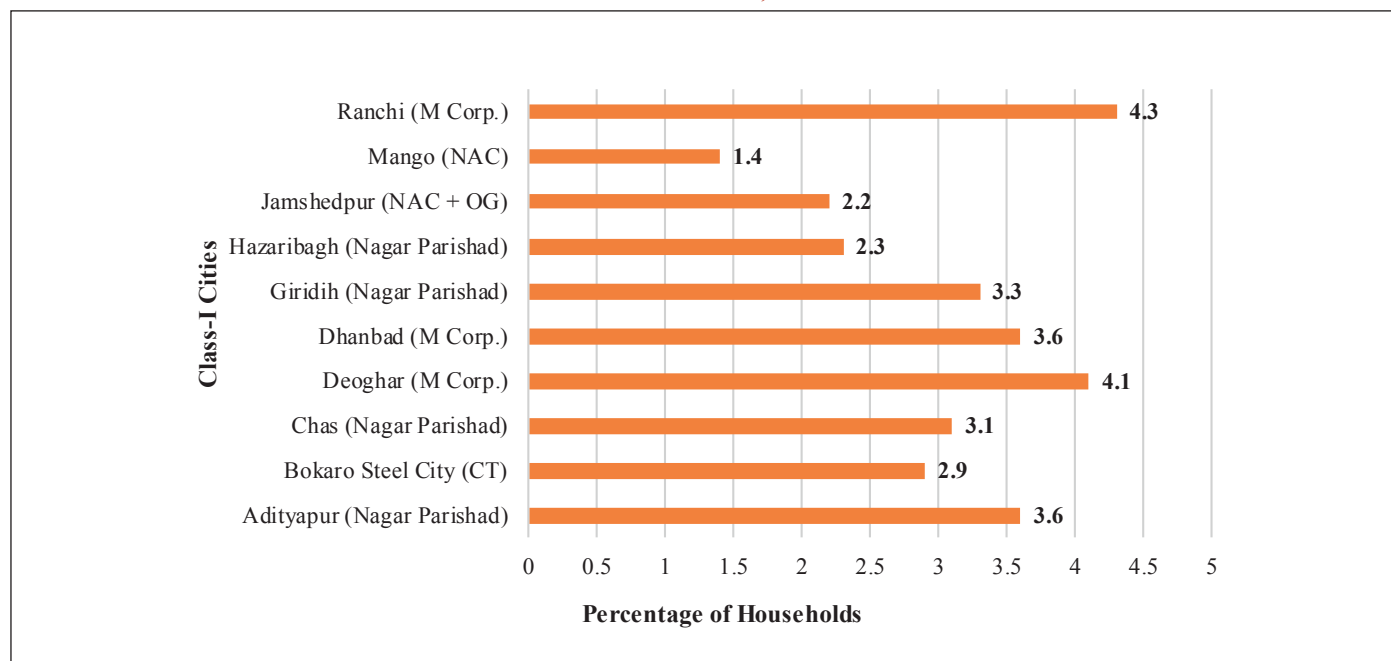
urban households residing in ‘dilapidated’ Census houses depict that the districts of Sahibganj (7.8 per cent), Garhwa (6.8 per cent) and Pakur (5.7 per cent) are worse off and have higher proportion of urban households living in Census houses which were reported to be in ‘dilapidated’ condition. The state of Jharkhand has on an average 3.7 per cent of urban households residing in ‘dilapidated’ Census houses. The districts of Purbi Singhbhum (2.3 per cent) followed by Hazaribagh and Khunti (3.0 per cent each) are better off in terms of housing condition and have lower proportion of such households living in Census houses which were reported to be in ‘dilapidated’ condition during the Census of India 2011 (Map 5.5).

Map 5.5: District-wise urban households residing in ‘dilapidated’ Census houses in Jharkhand, 2011



Source: Compiled from Census of India, 2011

Figure 5.6: Percentage of urban households residing in ‘dilapidated’ Census houses in the class-I cities of Jharkhand, 2011



Source: Computed from Town Directory, Jharkhand, Census of India, 2011

The status of ‘dilapidated’ housing condition in the major cities of Jharkhand depicts that only 3.3 per cent of the urban households residing in the class-I cities of Jharkhand lives in ‘dilapidated’ Census houses. A city-wise assessment of the status of ‘dilapidated’ housing condition reveals that among the ten class-I cities of Jharkhand, the cities of Ranchi Municipal Corporation (4.3 per cent) in Ranchi district and Deoghar Municipal Corporation (4.1 per cent) in Deoghar district has the highest proportion of urban households residing in ‘dilapidated’ Census houses. The major city which performs remarkably well in the parameter of housing condition is Mango in the Purbi Singhbhum district which has the lowest proportion (1.4 per cent) of urban households living in ‘dilapidated’ houses among the other class-I cities of Jharkhand (Figure 5.6).

Status of urban housing amenities in Jharkhand:

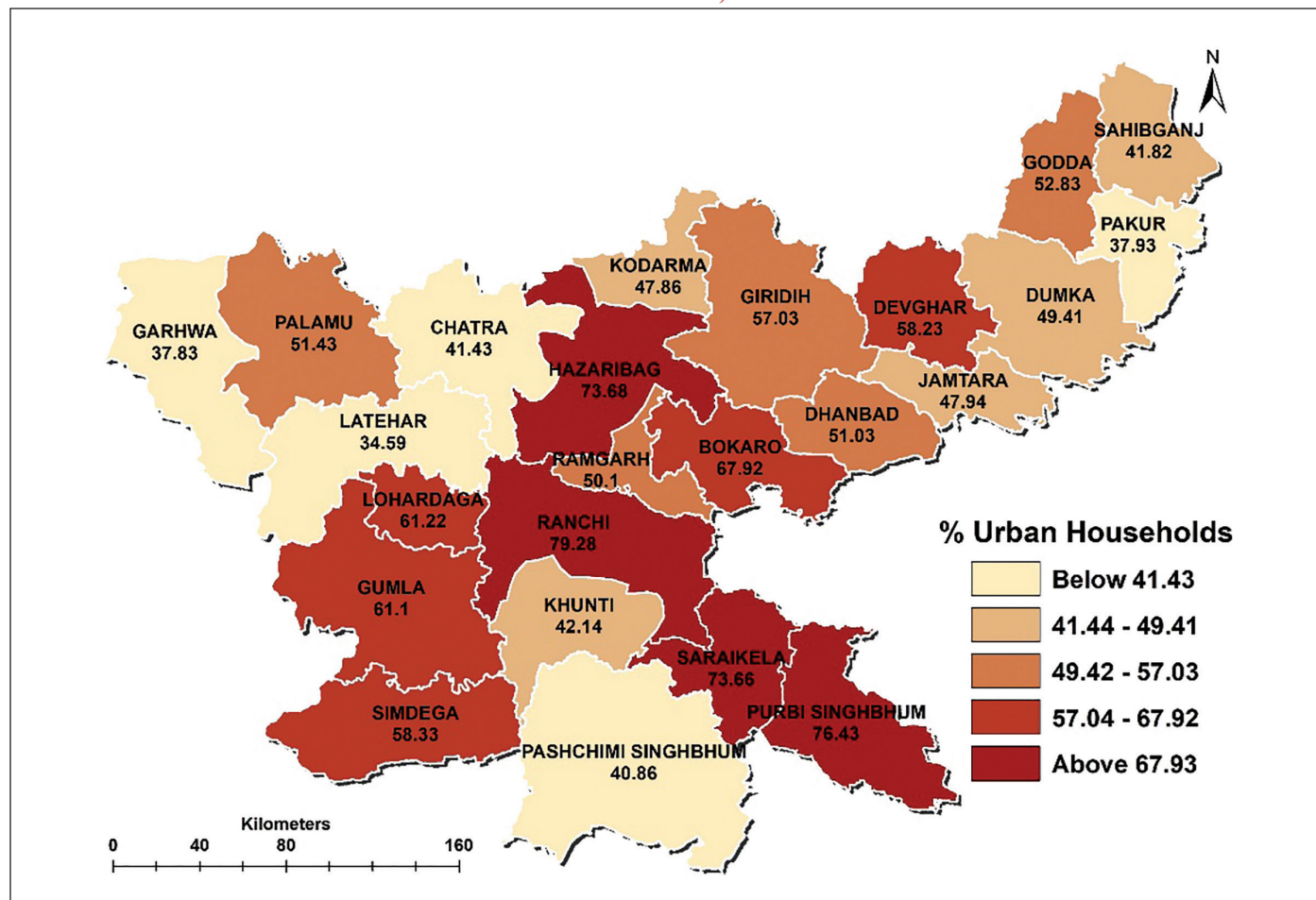
The challenges of the urban centres in providing

access to urban housing and houses in good condition to the urban population extends to the provision of basic amenities as well. Access to housing amenities such as improved sources of lighting and access to sanitation and hygiene are crucial aspects of an urban life which constitutes the urban lure that pulls hordes of migrants from the rural areas every year.

- **Urban households with the availability of exclusive kitchen facility:**

Apart from the Census of India, the Socio-Economic and Caste Census of India (SECC) 2011 provides detailed information on urban housing amenities. Availability of an exclusive kitchen facility in every urban household is considered as an important aspect of the urban housing along with access to non-polluting sources of cooking and lighting. According to the SECC 2011, 63.7 per cent of the urban households in the state of Jharkhand have access to exclusive kitchen facility in their households which is lower than the national average of 73.4 per cent.

Map 5.6: District-wise urban households having exclusive kitchen availability in Jharkhand, 2011



Source: Compiled from the Socio-Economic and Caste Census of India, 2011

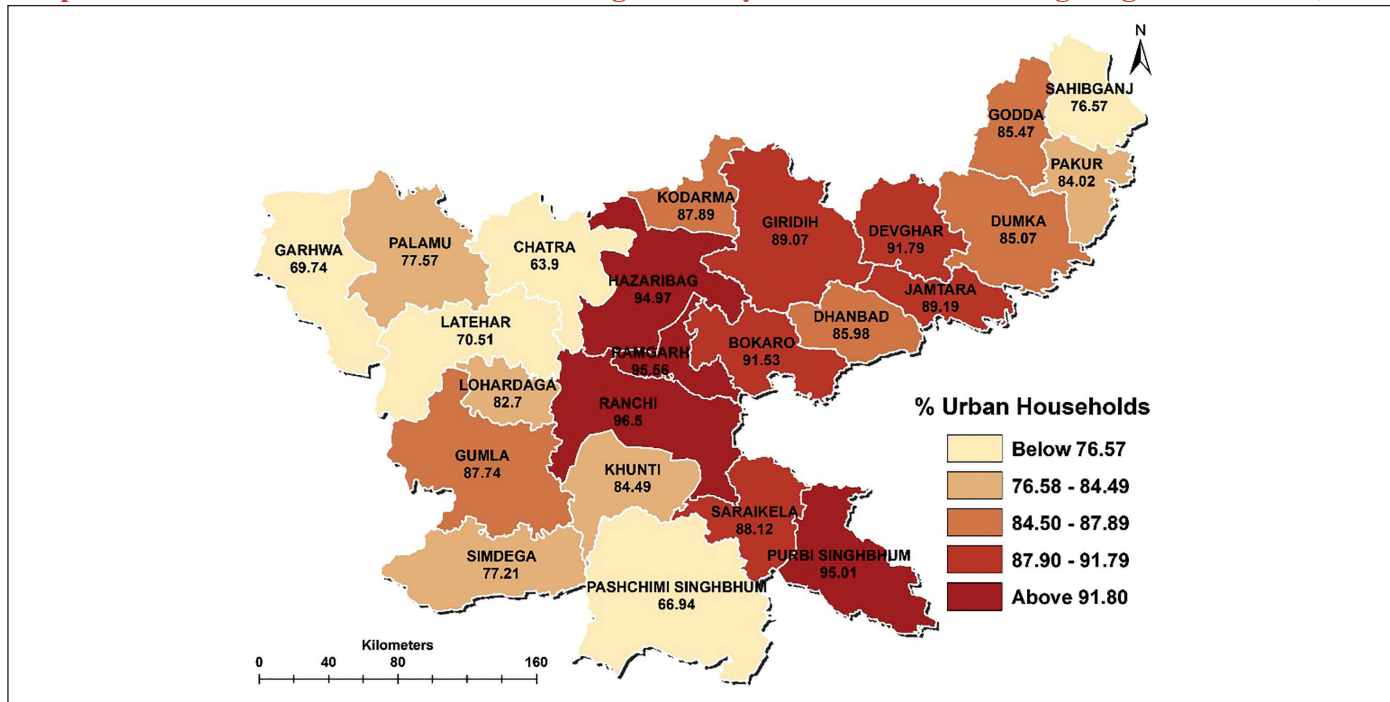
The district-wise distribution of such urban households in Jharkhand, according to the SECC 2011, depict that Ranchi district has the highest proportion (79.28 per cent) of urban households with exclusive kitchen availability. The other districts, apart from Ranchi, which perform not only better than the state average but also better as compared to the national average are Purbi Singhbhum (76.4 per cent), Hazaribagh (73.68 per cent) and Saraikela-Kharsawan (73.66 per cent). Bokaro district (67.9 per cent) also has a higher proportion of urban households with exclusive kitchen availability as compared to the state average. The districts which are worse off, in this case, are Latehar (34.59 per cent), Garhwa (37.83 per cent) and Pakur (37.93 per cent) which have below 40 per cent urban households

with exclusive kitchen availability (Map 5.6).

- **Urban households with access to electricity as the main source of lighting:**

Access to electricity as a non-polluting source of lighting is an integral part of the urban living standards. According to the SECC 2011, 89.6 per cent of the urban households in the state of Jharkhand have access to electricity as the main source of lighting in their households. This is lower than the national average of 94.9 per cent of urban households despite Jharkhand being a major producer of thermal and hydroelectric power in the country.

Map 5.7: District-wise urban households having electricity as the main source of lighting in Jharkhand, 2011

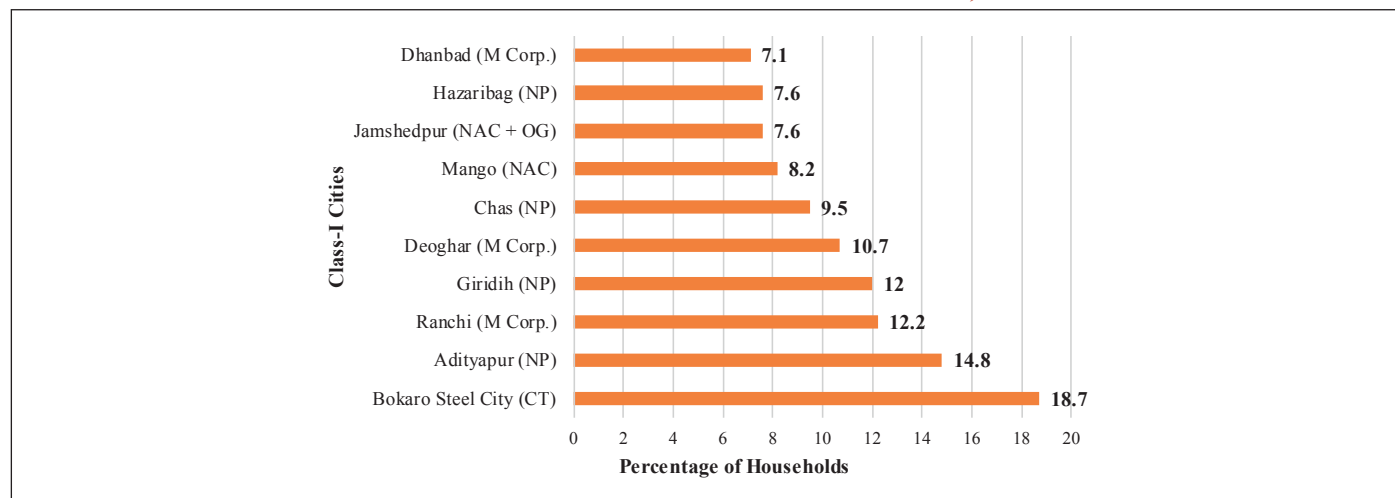


Source: Compiled from the Socio-Economic and Caste Census of India, 2011

The district-wise distribution of such urban households in Jharkhand, according to the SECC 2011, depict that Ranchi district has the highest proportion (96.5 per cent) of urban households with access to electricity as the main source of lighting. The other districts, apart from Ranchi, which performs not only better than the state average but also better as compared to the national average are Ramgarh (95.56 per cent), Purbi Singhbhum (95 per cent) and Hazaribagh (94.97 per cent). Deoghar (91.79

per cent) and Bokaro districts (91.53 per cent) also have a higher proportion of urban households with access to electricity as the main source of lighting as compared to the state average. The districts which are worse off, in this case, are Chatra (63.9 per cent), Pashchimi Singhbhum (66.9 per cent) and Garhwa (69.7 per cent) which have below 70 per cent urban households with access to electricity as the main source of lighting (Map 5.7).

Figure 5.7: Percentage of urban households with no domestic electricity connection in the class-I cities of Jharkhand, 2011



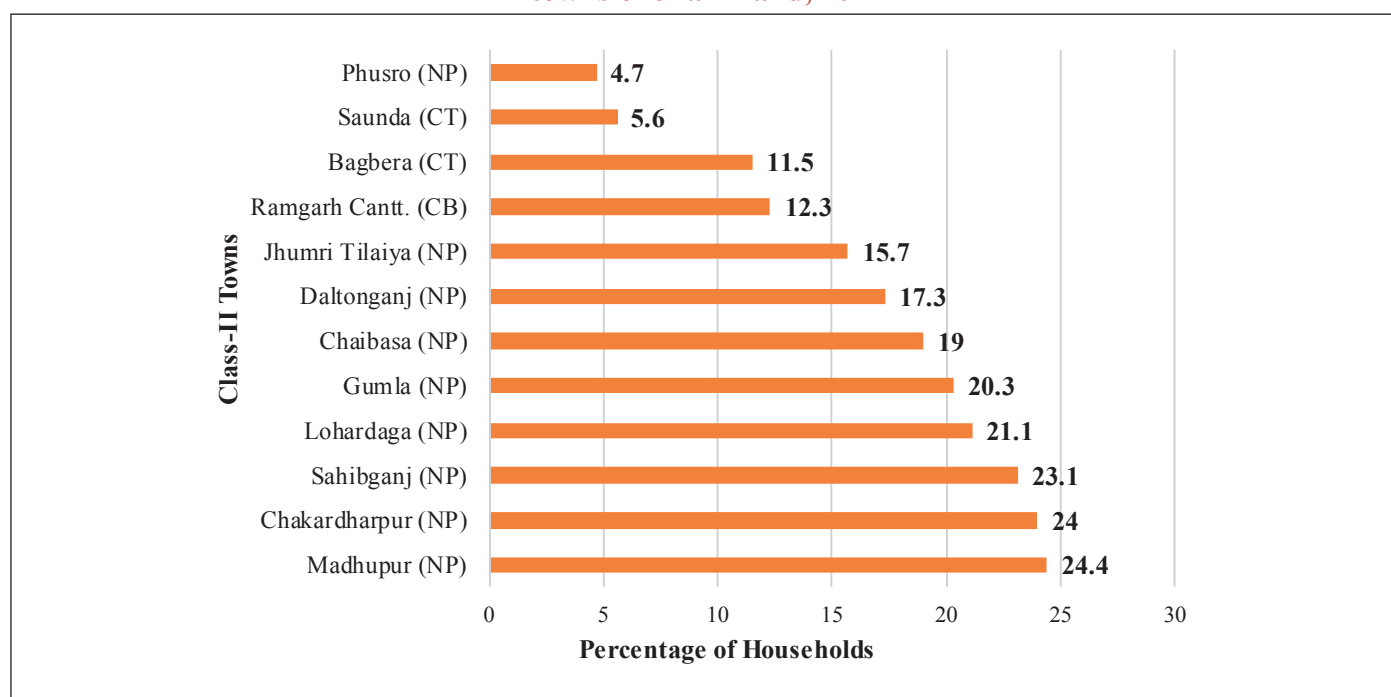
Source: Computed from Town Directory, Jharkhand, Census of India, 2011

With the concepts of smart and digital cities entering the urban arena, electricity connection for domestic use is one of the most fundamental aspects of urbanism. Despite this, 13.8 per cent of Jharkhand’s urban households do not have access to electricity connection. The condition is only slightly better in the class-I cities with 10.3 per cent of the households being devoid of domestic electricity connection according to the Town Directory of Census of India 2011. The large towns or the class-II towns are worse off with 15.8 per cent of the urban households with no domestic electricity connection.

A review of access to domestic electricity connection by cities and large towns of Jharkhand reveal that

among the class-I cities, Bokaro Steel City (18.7 per cent) in Bokaro district and Adityapur (14.8 per cent) in Saraikela Kharsawan district are worse off and have more than average households without any access to domestic electricity connection. Ranchi (12.2 per cent), Giridih (12.0 per cent) and Deoghar (10.7 per cent) are the other class-I cities which need improvement in the provision of domestic electricity connections. The cities of Dhanbad (7.1 per cent), Hazaribagh and Jamshedpur (7.6 per cent each) have less than 8 per cent of urban households without any access to domestic electricity connection and thus fare better as compared to the other class-I cities in terms of provision of domestic electricity connections (Figure 5.7).

Figure 5.8: Percentage of urban households with no domestic electricity connection in the class-II towns of Jharkhand, 2011



Data Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Among the class-II towns, two-thirds of them have below average performance regarding domestic electricity connections. Only Phusro (4.7 per cent), Saunda (5.6 per cent), Bagbera (11.5 per cent) and Ramgarh Cantonment (12.3 per cent) have lower proportions of households without electricity

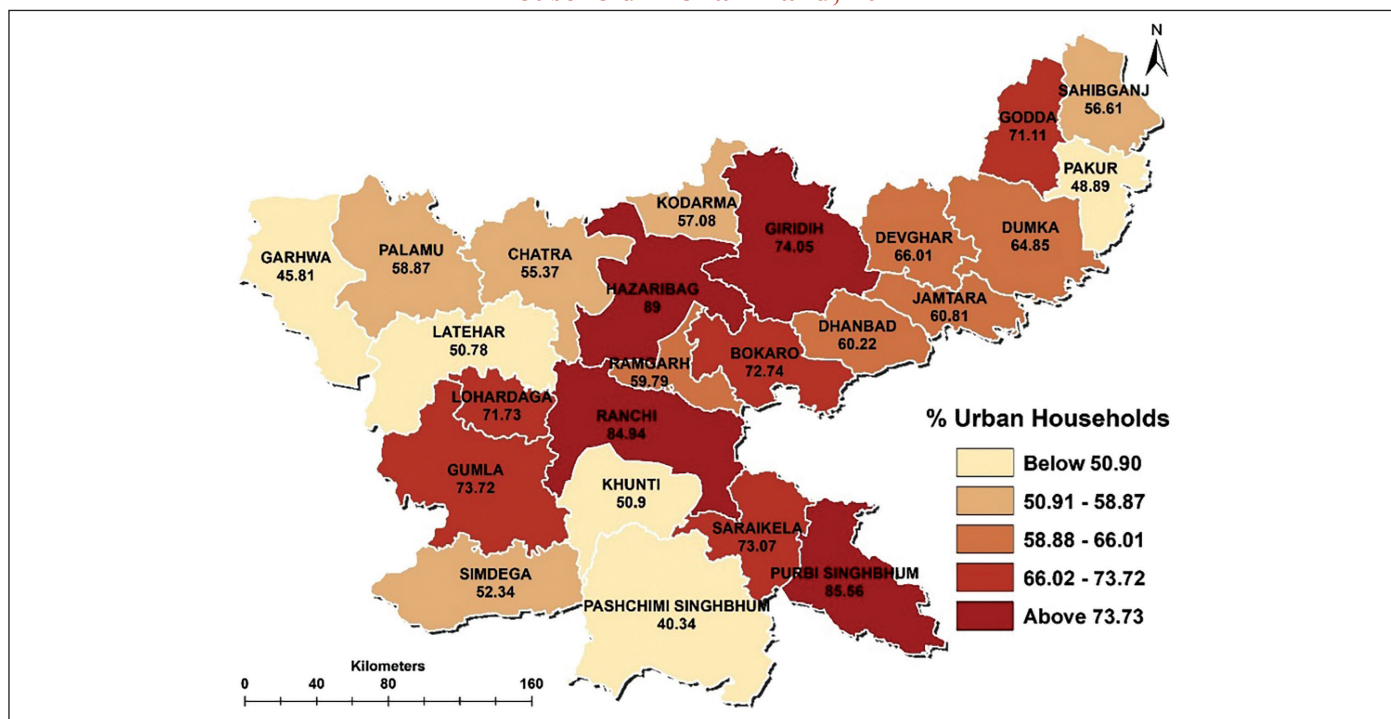
connections (Figure 5.8). The provision for domestic electricity in Phusro and Saunda towns is much better than the class-I cities. Only if such provisions are replicated in the other large towns, it can become a major factor in reversing the persistent flow of urban population towards the big cities.

- **Urban households with exclusive access to water-seal latrine facility:**

Access to sanitation and hygiene are crucial components of well-being and the urban centres are supposed to set standards for the same. According to the SECC 2011, 71.7 per cent of the urban households

in the state of Jharkhand have access to improved sanitation in terms of the water-seal latrine, also termed as pour-flush pit latrine, facility exclusively for the household. This is lower than the national average of 81.39 per cent of urban households in the country.

Map 5.8: District-wise urban households having water-seal latrine facility exclusively for the household in Jharkhand, 2011



Source: Compiled from the Socio-Economic and Caste Census of India, 2011

The district-wise distribution of such urban households in Jharkhand, according to the SECC 2011, depict that Hazaribagh district (89 per cent) has the highest proportion of urban households with access to improved sanitation in terms of water-seal latrine facility. The other districts, apart from Hazaribagh, which perform not only better than the state average but also better as compared to the national average are Purbi Singhbhum (85.56 per cent) and Ranchi district (84.94 per cent). Giridih (74.05 per cent), Gumla (73.72 per cent), Saraikela-Kharsawan (73.07 per cent), Bokaro (72.74 per cent) and Lohardaga (71.73 per cent) are the districts which also have a higher proportion of urban households with access to water-seal latrine facility

as compared to the state average. The districts which are worse off, in this case, are Pashchimi Singhbhum (40.34 per cent), Garhwa (45.8 per cent) and Pakur (48.89 per cent) which have below 50 per cent urban households with access to improved sanitation in terms of water-seal latrine facility (Map 5.8).

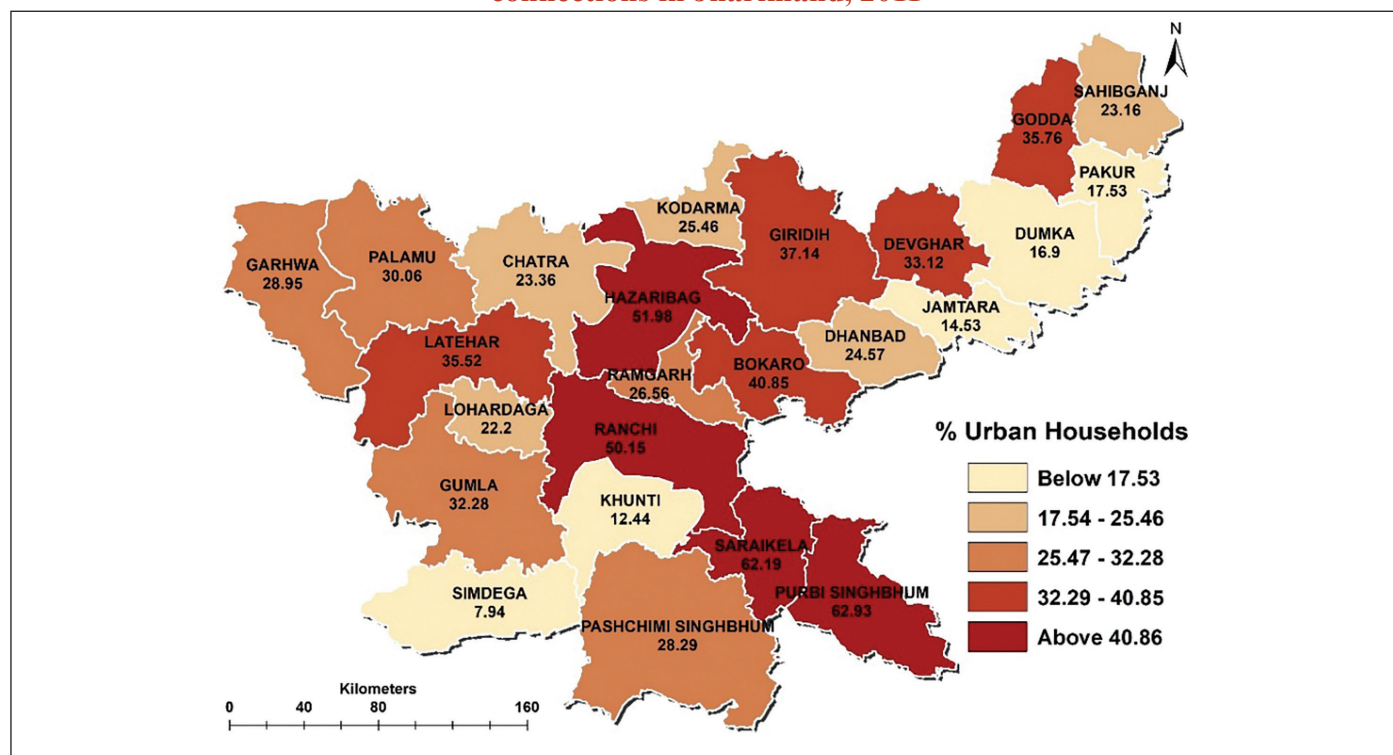
- **Urban households with access to closed waste water-outlet connections:**

Along with access to an improved toilet facility, availability of waste water-outlet connection attached exclusively to the household is also a crucial component of housing amenities and is integral to sanitation and hygiene. The health of the populace depends largely on access to these components of

sanitation and hygiene as water-borne and vector-borne diseases are rampant in parts of Jharkhand due

to poor access to hygienic conditions and the urban Jharkhand is definitely not devoid of it either.

Map 5.9: District-wise urban households having closed waste water-outlet connections in Jharkhand, 2011



Source: Compiled from the Socio-Economic and Caste Census of India, 2011

According to the SECC 2011, 40.3 per cent of the urban households in the state of Jharkhand have access to closed waste water-outlet connection or closed drainage, which is regarded as a safer and cleaner drainage system for waste water and greywater as it remains covered and therefore decreases the chances of water-borne and vector-borne diseases. The State average of Jharkhand is much lower than the national average of 56.17 per cent of urban households in the country with access to closed waste water-outlet connection.

The district-wise distribution of such urban households in Jharkhand, according to the SECC 2011, depict that Purbi Singhbhum district (62.93 per cent) has the highest proportion of urban households with access to improved sanitation in terms of closed waste water-outlet connection. The other district apart from Purbi Singhbhum, which

performs not only better than the state average but also better as compared to the national average is Saraikela-Kharsawan (62.19 per cent). Hazaribagh (51.98 per cent), Ranchi (50.15 per cent) and Bokaro (40.85 per cent) are the districts which also have a higher proportion of urban households with access to of closed waste water-outlet connection as compared to the state average. The districts which are worse off, in this case, are Simdega (7.94 per cent), Khunti (12.44 per cent) and Jamtara (14.53 per cent) which have below 15 per cent urban households with access to improved sanitation in terms of closed drainage facility (Map 5.9).

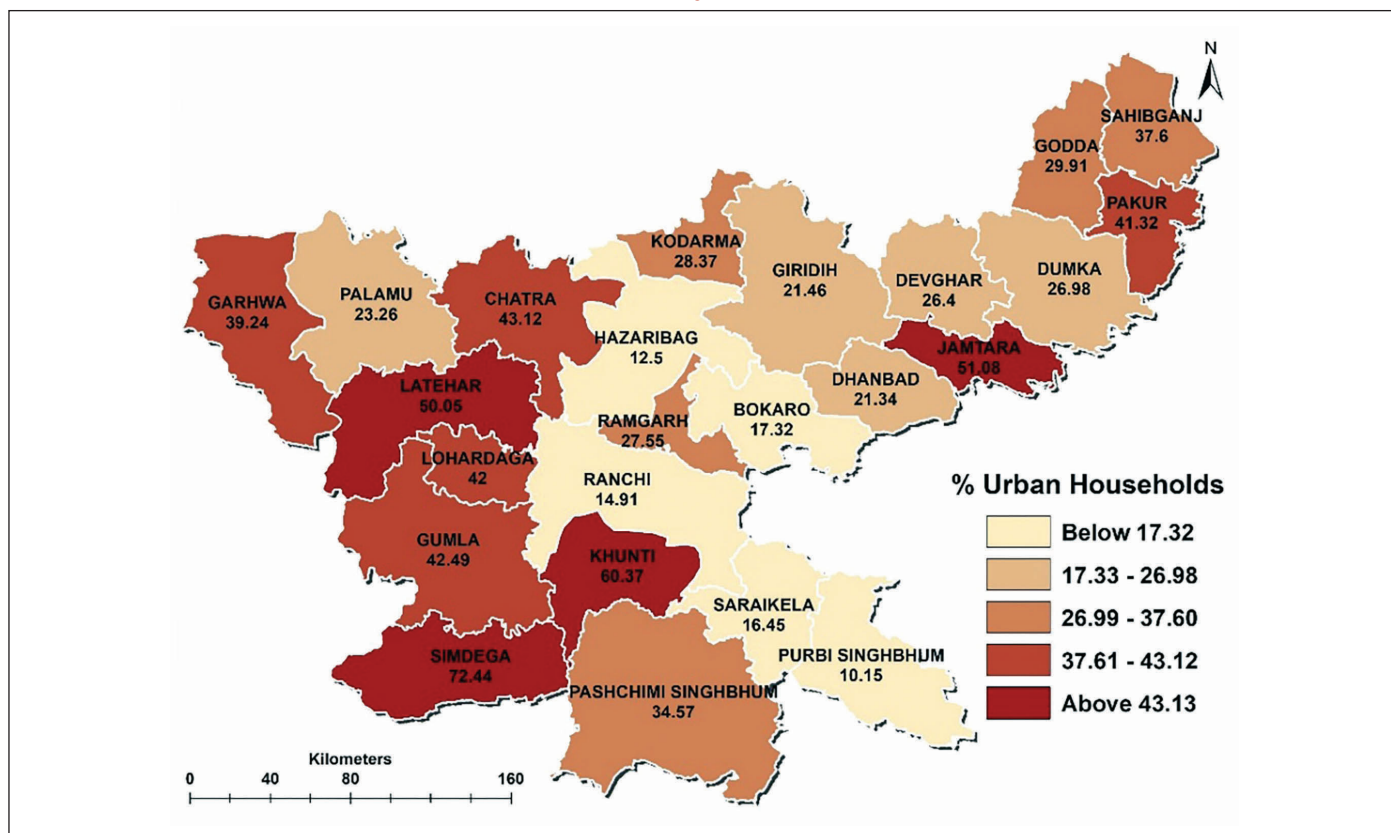
- **Urban households with no access to waste water-outlet connection:**

According to the SECC 2011, 20.77 per cent of the urban households in the state of

Jharkhand still have no access to waste water-outlet connection or any drainage facility for waste water and greywater, which is quite a matter of concern for the urban authorities as solid as well as liquid waste management forms a crucial aspect of urban sanitation especially for cities with ever-expanding population. The state average of Jharkhand is much higher than the national average of 12.86 per cent of urban households in the country with no access to waste water-outlet connection.

The district-wise distribution of such urban households in Jharkhand, according to the SECC 2011, depict that the tribal-dominated Simdega district (72.44 per cent) has the highest proportion of urban households with no access to sanitation in terms of waste water-outlet connection. The other districts which are similarly worse off are Khunti (60.37 per cent), Jamtara (51.08 per cent) and Latehar (50.05 per cent) which also have a higher proportion of urban households with no access to drainage facility (Map 5.10).

Map 5.10: District-wise urban households having no waste water-outlet connections in Jharkhand, 2011



Source: Compiled from the Socio-Economic and Caste Census of India, 2011

Status of urban sanitation in Jharkhand by cities and towns:

The report on Swachh Survekshan-2017, released by the Ministry of Housing and Urban Affairs Government of India, provided ranking for 434 cities and towns across the country which were

awarded with the title of ‘Swachh Cities’ on the basis of their cleanliness and sanitation drive as a part of the Swachh Bharat Abhiyan that was launched in 2014. Among these 434 cities/towns, 9 cities of Jharkhand were included in the survey. All these 9 cities surveyed in 2017 have substantially improved in rankings over the earlier surveys.

Table 5.1: Swachh Survekshan-2017: Success stories of Jharkhand

| Cities/Towns | 2017 Ranking among 434 cities/towns | 2017 Ranking among 72 million plus population cities/towns | 2016 Ranking among 73 million plus Cities/capitals surveyed | 2014 Rankings of 476 cities/towns |
|--------------|-------------------------------------|--|---|-----------------------------------|
| Chas | 41 | N. A | N. A | 371 |
| Jamshedpur | 64 | 26 | 66 | 109 |
| Giridih | 81 | N. A | N. A | 298 |
| Hazaribagh | 91 | N. A | N. A | 325 |
| Deoghar | 102 | N. A | N. A | Not Surveyed |
| Dhanbad | 109 | 33 | 72 | 343 |
| Ranchi | 117 | 36 | 62 | 223 |
| Mango | 131 | N. A | N. A | 284 |
| Adityapur | 144 | N. A | Not Surveyed | 404 |

Source: Press Information Bureau, Government of India, Ministry of Housing and Urban Affairs, 04-May-2017

The class-I city of Chas in Bokaro district, which also has the least proportion of slum population (2.6 per cent) among the ten class-I cities of Jharkhand, achieved 41st rank among the 434 cities/towns of India. It improved from 371st rank during the 2014 survey which was conducted for 476 cities/towns of India. Apart from Chas, the 3 other cities of Jharkhand which were declared as the 100 cleanest cities of India were Jamshedpur (64th rank), Giridih (81st rank) and Hazaribagh (91st rank). While Giridih improved from 298th rank, Hazaribagh improved from 325th rank during the 2014 survey. Jamshedpur was one of the 72 million plus cities/towns which were surveyed during 2017 and this steel city of Jharkhand attained 26th rank, which was an improvement from 66th rank during the 2016 survey which was conducted for 73 million plus cities/towns of India. The other cities/towns of Jharkhand

which appeared in the Swachh Survekshan-2017 ranking were Deoghar (102nd rank), Dhanbad (109th rank), Ranchi (117th rank), Mango (131st rank) and Adityapur (144th rank).

Flagship schemes of Urban Development:

- **Ranchi Smart City (Smart Cities Mission):**

Ranchi is one of the 100 smart cities under the Smart Cities Mission of the Government of India. The Government of India announced the list of 13 cities which were selected to be taken up for development as Smart Cities in the fast-track round of the Smart City Programme. A total of 23 cities competed in this stage, and Ranchi was the 11th city among the winning fast-track cities. The Government of Jharkhand envisions to make Ranchi Smart City a knowledge hub for educational excellence – for both formal and non-formal sectors, by reinforcing its good

educational institutes in preparation for welcoming knowledge-based industries, an efficiently managed traffic and transportation system based city aided by information technology in all aspects to reduce the travel time of commuters and incidents of traffic violations to make Ranchi a safe city for pedestrians and commuters.

Box 5.1: The Vice-President of India laid the foundation for Smart City Project in Ranchi City

Vice-President M Venkaiah Naidu laid the foundation stone for the first and only greenfield smart city project in Ranchi. He performed the Bhoomi Poojan for Ranchi smart city on 9th September 2017 during his maiden visit to Jharkhand as the Vice-President of India. A total of 90 cities have been selected for smart cities in the entire country and Ranchi in Jharkhand became the first city in the country where Bhoomi Poojan programme for building smart city has been concluded.

He also laid the foundation stone for the urban civic tower, convention centre and Jharkhand Urban Planning and Management Institute in the campus of Ranchi smart city area. He said that once completed, this one city would be like a lighthouse, setting an example and leading to the demand for more such cities.

(Source: Press Information Bureau, Government of India, Vice President's Secretariat, 09-September-2017 19:39 IST)

The smart city of Ranchi will offer opportunities to investors in the areas of real estate, health, education, housing and hospitality among others in order to develop modern state-of-the-art amenities. The development of Ranchi smart city will take place mainly through two major components: Area Based Development and Pan City development

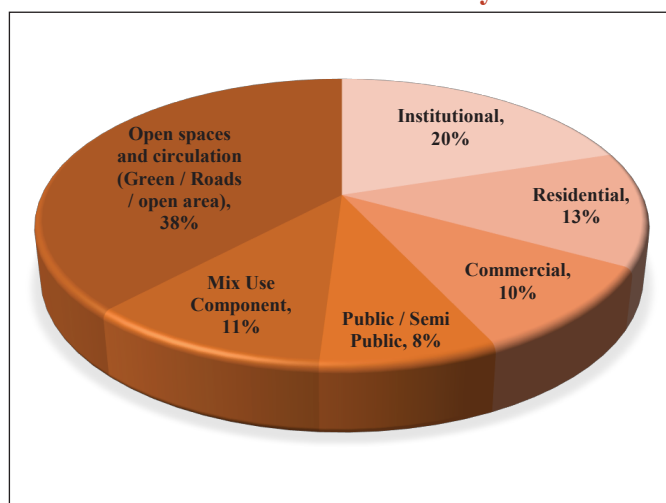
projects. Area based development (ABD) in Ranchi smart city envisages the development of a greenfield encumbrance free land of 656 acres. According to the proposed land use breakup, about 38 per cent of the land is to be kept for open spaces, including green and open areas, and roads. While 13 per cent of the land is to be kept for the residential purpose, 10 per cent of the land is to be occupied by commercial activities in the proposed smart city.

Table 5.2: Proposed Land use break up of ABD Site for Ranchi Smart City

| Land Use for the ABD | Land (in acres) |
|---|-----------------|
| Institutional | 134.06 |
| Residential | 86.51 |
| Commercial | 67.07 |
| Public / Semi-Public | 54.60 |
| Mix Use Component | 69.14 |
| Open spaces and circulation (Green / Roads / open area) | 245.05 |
| Total Area | 656.43 |

Source: Ranchi Smart City Master Plan, Urban Development and Housing Department, Government of Jharkhand

Figure 5.9: Land use distribution of ABD Site for Ranchi Smart City



Source: Ranchi Smart City Master Plan, Urban Development and Housing Department, Government of Jharkhand

Table 5.3: List of Projects as per Ranchi Smart City Proposal

| Sl. No. | Projects in Smart City Proposal | Cost (in Rs. Crore) |
|------------------------------|--|---------------------|
| Area Based Development (ABD) | | |
| 1. | Land Development | 60.19 |
| 2. | Transport & Circulation (Roads) with Pedestrian facility duct for utilities including gas line, power line, Optical fibre, provision for sewerage & drainage | 209.83 |
| 3. | Open Spaces & Parks (River Park, Eco Park, Lake harvest, Neighbourhood Park) | 49.40 |
| 4. | Water Supply and Reuse of Recycled Water | 55.22 |
| 5. | Waste Water Management -Sewerage & Sanitation | 35.93 |
| 6. | Water Management - Storm Water Drainage | 7.76 |
| 7. | Power Supply, Source & Efficiency | 108.12 |
| 8. | Safety & Security | 21.73 |
| 9. | Transit Hub/centre | 184.1 |
| 10. | Smart Administrative & Command Centre (SACC) | 149.02 |
| 11. | Student Resource Centre | 88.42 |
| 12. | Solid waste management system | 5 |
| 13. | EWS | 38.84 |
| 14. | Convention Centre | 230 |
| 15. | Jharkhand Urban Planning and Management Institute (JUPMI) | 95 |
| 16. | Public Facility Centre | 37.43 |
| 17. | Health facilities | 1.2 |
| 18. | Other Social Infrastructure | 20 |
| Pan City | | |
| 19. | Intelligent Public Transport System | 15.6 |
| 20. | Corridor Management System (Traffic) | 21.09 |
| 21. | Parking Management System | 8 |
| 22. | IPT Integration | 2.7 |
| 23. | Fare management system | 1.7 |
| 24. | Command & Control Centre (RITTS) | 43 |

Note: This only indicates the cost of individual projects given in the SCP. The total value of SCP may additionally include other costs such as DPR preparation, PMC, O&M etc.

Source: Smart Cities Mission, Ministry of Housing and Urban Affairs, Government of India

The second component under the Ranchi Smart City is the Pan City solution within which the Ranchi Integrated Traffic and Transport System (RITTS) is to be developed. The target of the RITTS is to integrate all the existing as well as upcoming solutions related to transport and traffic under one umbrella through information communication technology (ICT). It proposes to provide a digital platform for integrating public transport management, parking management, corridor management (traffic), intermediated public

transport (IPT) integration, fare management along with the integration of ABD's transport and traffic needs. It shall be housed in a central control and command centre which shall not only act as the epicentre to all the traffic and transport related decision making but also cater to the safety and security environment of Ranchi city and in future shall be scaled to other utilities including solid waste management. A smart city special purpose vehicle (SPV) has been formed called Ranchi Smart City

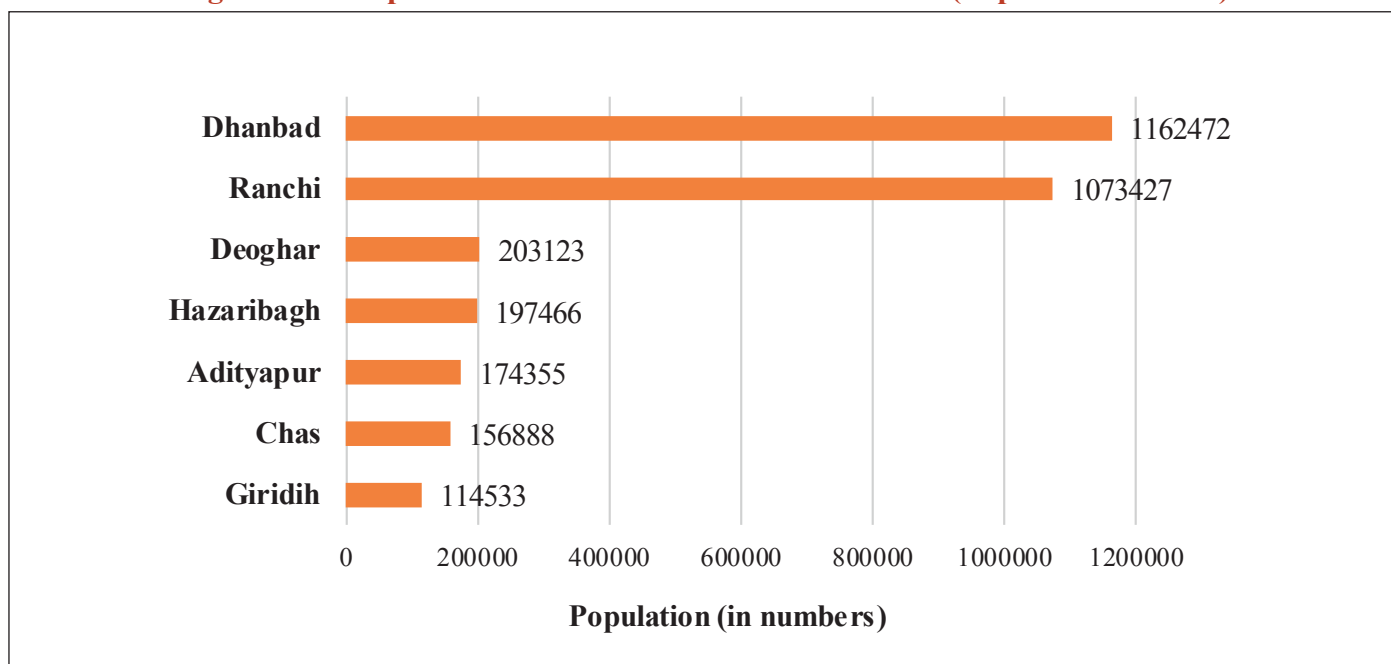
Corporation Limited for the implementation of the smart city project. The work on some of the projects of ABD area are ongoing through Jharkhand Urban Infrastructure Development Company (JUIDCO) and for the rest of the projects of ABD and Pan City, the preparation of the detailed project report (DPR) is in process.

- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT):**

AMRUT was launched on 25th June 2015 with the aim to provide basic amenities and services to urban households and to inclusively improve the quality of life.

Cities with a population of more than 1 lakh have been covered under this mission. The objectives are to ensure assured supply and access to tap water and a sewerage facility for every household, beautification and gentrification of cities by creating, maintaining and upgrading green spaces, parks, recreation centres etc and to trim down pollution levels by improving public transport facilities and promoting non-motorized and pedestrian friendly transport. The JUIDCO has been selected as the Project Development and Management Consultant (PDMC) for AMRUT in Jharkhand.

Figure 5.10: Population of AMRUT Cities in Jharkhand (as per Census 2011)



Source: State Annual Action Plan (SAAP) of Jharkhand, Financial year 2016-17, State Urban Development Agency (SUDA), Urban Development and Housing Department, Government of Jharkhand

The Ministry of Urban Development has identified 7 cities of Jharkhand to be covered under this mission. The selection has been done based on data from Census 2011. The seven cities, which are all class-I cities are Dhanbad, Ranchi, Deoghar, Hazaribagh, Adityapur, Chas and Giridih in that order of their respective sizes. The state has also

requested the addition of Jamshedpur, Mango, Ramgarh and Sahibganj on the basis of the selection criteria of the guidelines.

A plan for the mission period (2015-20) has been envisaged under which the detailed GAP analysis has been done as per the AMRUT guidelines and the fund requirement for the 7 AMRUT cities has been calculated. The state has prepared a 5-year perspective

plan for the total project size of Rs. 3918.58 crores. The fund allocation will be segregated among all 5 mission components wherein water supply and

sewerage and septage management will be the focus area. The likely implementing agency will be the concerned urban local bodies (ULBs).

Table 5.4: City-wise project fund for AMRUT for mission period, 2015-20

(Amount in crores)

| Name of ULBs | Water supply | Sewerage and Septage management | Storm Water Drainage | Urban Transport | Green Space & Parks | Total |
|--------------------------------|----------------|---------------------------------|----------------------|-----------------|---------------------|----------------|
| Dhanbad | 519.25 | 286.90 | 49.95 | 3.00 | 5.00 | 864.10 |
| Ranchi | 255.64 | 227.00 | 416.93 | 5.00 | 5.00 | 909.57 |
| Deoghar | 45.10 | 143.90 | 44.50 | 3.05 | 5.00 | 241.55 |
| Adityapur | 189.00 | 198.36 | 50.00 | 3.00 | 5.00 | 445.36 |
| Chas | 126.00 | 125.00 | 7.00 | 5.00 | 5.00 | 268.00 |
| Hazaribagh | 245.00 | 228.00 | 200.00 | 4.00 | 5.00 | 682.00 |
| Giridih | 205.00 | 145.00 | 150.00 | 3.00 | 5.00 | 508.00 |
| Total Project Cost of 7 Cities | 1584.99 | 1354.16 | 918.38 | 26.05 | 35.00 | 3918.58 |

Source: State Annual Action Plan (SAAP) of Jharkhand, Financial year 2016-17, State Urban Development Agency (SUDA), Urban Development and Housing Department, Government of Jharkhand

During the financial year 2016-17, most of the fund was allotted for water supply as well as sewerage and septage management projects in all the AMRUT cities of Jharkhand. While for Dhanbad city, the

highest proportion of fund was allotted for water supply purpose, for Deoghar city the highest proportion of fund was allotted for sewerage and septage management projects.

Table 5.5: City-wise project fund for proposed projects under AMRUT for 2016-17

(Amount in crores)

| Name of City | Water Supply | Sewerage and Septage Management | Drainage | Urban Transport | Green Spaces and Parks | Total Amount |
|--------------------------|--------------|---------------------------------|----------|-----------------|------------------------|---------------|
| Ranchi | 54.50 | 0.00 | 0.00 | 0.00 | 2.00 | 56.50 |
| Deoghar | 25.00 | 29.00 | 0.00 | 0.00 | 1.00 | 55.00 |
| Hazaribagh | 0.00 | 24.00 | 0.00 | 0.00 | 1.00 | 25.00 |
| Giridih | 50.00 | 26.00 | 0.00 | 0.00 | 1.00 | 77.00 |
| Adityapur | 0.00 | 24.00 | 0.00 | 0.00 | 1.00 | 25.00 |
| Chas | 30.00 | 27.80 | 0.00 | 0.00 | 1.50 | 59.30 |
| Dhanbad | 77.00 | 0.00 | 0.00 | 0.00 | 2.00 | 79.00 |
| Total | 236.50 | 130.80 | 0.00 | 0.00 | 9.50 | 376.80 |
| Total Project Investment | | | | | | 376.80 |
| A&OE | | | | | | 5.024 |
| Grand Total | | | | | | 381.82 |

Source: State Annual Action Plan (SAAP) of Jharkhand, Financial year 2016-17, State Urban Development Agency (SUDA), Urban Development and Housing Department, Government of Jharkhand

Box 5.2: Birsa Munda Smriti Park in Ranchi to be revamped soon

Ranchi Municipal Corporation (RMC) has proposed to gift children in the capital a revamped Birsa Munda Smriti Park on old jail premises. For RMC it is a priority as it is one of the biggest parks in the heart of the city that thousands of children visit.

The larger project to revamp the overall old jail premises, which has immense historical significance for Jharkhand as icon Birsa Munda died here, will be done by JUIDCL's outsourced agency, Calcutta-based Triveni Construction, by April 2019. Under this bigger scheme, the old jail will be renovated keeping its architectural design intact. A new park with a toy train, 32 tribal cottages displaying art, life and culture, a pavilion where tribal artefacts will be sold, a nursery for plants, a 250-seater amphitheatre, basement parking and food court have been proposed under the plan. A dedicated zone named *Jharkhand Darshan* with a laser lights show is also planned.

- **Deendayal Antyodaya Yojana - National Urban Livelihoods Mission (DAY-NULM):**

National Urban Livelihoods Mission (NULM) was launched by the Ministry of Housing and Urban Poverty Alleviation (MHUPA), Government of India on 23rd September 2013 by replacing the existing *Swarna Jayanti Shahari Rozgar Yojana* (SJSRY). The primary target population group of NULM is the urban poor including the urban homeless. The NULM is meant to focus on organizing urban poor in their strong grassroots level institutions, creating opportunities for skill development linked to market-oriented employment and promoting

self-employment by ensuring easy access to credit. The mission also aims to provide shelter to the urban homeless along with basic services in a phased manner. The mission is also directed towards tackling livelihood concerns of the urban street vendors by facilitating access to suitable spaces, institutional credit, social security and skills to the urban street vendors for accessing emerging market opportunities. The target is to cover all districts headquarter towns (irrespective of the population) and all other towns with a population of 1 lakh or more as per Census 2011 under the 12th Five Year Plan.

Table 5.7: Physical targets for various components under DAY-NULM in Jharkhand for the financial year 2017-18

| Components under DAY-NULM | Target categories | Physical targets | |
|---|------------------------------------|------------------|-----------|
| | | Jharkhand | All-India |
| Social Mobilisation and Institution Development (SM&ID) | Formation of SHG | 7500 | 116686 |
| | Disbursement of revolving fund | 6056 | 156775 |
| Employment through Skills Training & Placement (EST&P) | Skill training of urban poor | 35000 | 582021 |
| Self-Employment Programme (SEP) | Assistance under SEP (I&G) | 18040 | 174954 |
| | SHG bank linkage | 800 | 156217 |
| Scheme of Shelters for Urban Homeless (SUH) | Sanction of shelters | 40 | 981 |
| | Operationalisation of shelters | 30 | 564 |
| Support to Urban Street Vendors (SUSV) | Completion of street vendor survey | 15 | 1105 |

Source: Annexure to Letter No. G.24011/1/2016-UPA (FTS 15086) Dated: 2nd June 2017, Ministry of Housing & Urban Poverty Alleviation (UPA Division), Government of India

Components of DAY-NULM: There are five components under DAY-NULM which are as follows:

- a) Social Mobilization and Institution Development (SM&ID):** The DAY-NULM envisages universal social mobilization of the urban poor into Self-Help Groups (SHGs) and their federations. The mission focusses on these elements with special attention to bank linkages to meet the credit needs of the urban poor. The resource organizations (ROs) are provisioned to facilitate the formation of SHGs, their federations and their development. The mission has provisions to provide training and other capacity-building support for the SHGs and their federations. It envisages universal financial inclusion which is to be achieved through ensuring financial literacy, the opening of basic savings bank deposit accounts and affordable insurance – life, health and pension.
- b) Employment through Skills Training and Placement (EST&P):** The EST&P component of DAY-NULM focusses on providing assistance for development/upgrading of the skills of the urban poor. Training is to be provided as per the industry demand and as per the curriculum recognized nationally. The course duration

for skill training programmes are to be as per National Skills Qualifications Framework (NSQF) aligned Modular Employable Skills (MES)/Sector Skill Council (SSC) courses. Training is to be provided by reputed skill training providers (STPs) by qualified trainers. The certification for receiving skill training is to be done by recognized certification agencies (CAs) i.e. National Council of Vocational Training (NCVT)/SSC. The provisions under this component extend to placement (minimum 50 per cent candidates) and/or linkages for self-employment ventures wherein the STPs track the successful candidates for a period of 6 months.

- c) Self-Employment Programme (SEP):** The SEP component of DAY-NULM focusses on providing financial assistance to individuals/groups of urban poor for setting up gainful self-employment ventures/ micro-enterprise. The component also supports SHGs of urban poor to access easy credit from the bank and avail interest subsidy on SHG loans. The community organisers (COs) and professionals from ULBs identify the prospective beneficiaries from among the urban poor. No minimum educational qualification is required for prospective

beneficiaries under this component. Training is to be provided to the beneficiaries before extending financial support by linking them for training under EST&P. The SEP component of DAY-NULM is being converged with Pradhan Mantri Mudra Yojana (PMMY).

d) Support to Urban Street Vendors (SUSV):

The SUSV component of DAY-NULM proposes a city-wide street vendor survey with a view to identifying vendors, vendor zones and existing practices. The provisions under this component are to issue identity cards to the vendors which is to be done by the ULBs, development of a city street vending plan and vendor market, provide bank linkages by way of opening basic savings bank deposit account of the vendors, facilitate bank linkages for working capital requirements and social security convergence.

e) Scheme of Shelters for Urban Homeless (SUH): The SUH component of DAY-NULM proposes to provide shelters and essential

services to the urban homeless. The shelters are categorised into general shelters and special shelters. The general shelters include all shelters such as ‘men shelters’, ‘women shelters’ and ‘family shelters’ whereas the special shelters are those which take into account the special needs of such segments of homeless persons, such as old persons without care, mentally ill, recovering patients and their families.

The SUH component envisages to provide permanent - 24x7 - all-weather community shelters for every 1 lakh urban population. Each shelter must cater to 50 - 100 persons. All necessary infrastructural facilities are to be put in place including kitchen, water, sanitation, electricity, recreation, etc. A minimum space of 5 square meters or 50 sq. feet per person is to be provided. The location of the shelters must be close to the places of concentration of homeless persons and their workplaces. There are provisions to set up shelter management committees to run and manage the shelters.

Table 5.8: City/ULB-wise shelter homes in Jharkhand under DAY-NULM programme (as on 9th November 2017)

| Sl. No. | City/ULB | Number of NULM shelters | Type of Shelter | Capacity of shelter | Inmates in shelter |
|---------|------------------------------------|-------------------------|-----------------|---------------------|--------------------|
| | | | | (in persons) | |
| 1 | Ranchi Municipal Corporation | 9 | General | 168 | 95 |
| 2 | Jamshedpur Notified Area Committee | 6 | General | 124 | 67 |
| 3 | Lohardaga Municipal Council | 1 | General | 50 | 50 |
| 4 | Dhanbad Municipal Corporation | 1 | Men | 50 | 10 |
| 5 | Chas Municipal Corporation, Bokaro | 1 | Men | 50 | 6 |
| 6 | Phusro Nagar Parishad, Bokaro | 1 | General | 50 | 40 |
| 7 | Deoghar Municipal Corporation | 1 | Men | 45 | 10 |
| 8 | Adityapur Nagar Nigam | 2 | Men | 30 | 14 |
| 9 | Ranchi Municipal Corporation | 2 | Women | 36 | 19 |
| 10 | Giridih Nagar Parishad | 1 | Men only | 30 | 10 |
| 11 | Mango Notified Area Committee | 1 | Men | 15 | 7 |
| Total | | 26 | | 648 | 328 |

Source: Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM), Ministry of Housing and Urban Affairs, Government of India (http://nulm.gov.in/SUH/SUH_Rept_City_Shelter_Details.aspx) as obtained on 9th November 2017

Table 5.9: ULB-wise construction of new shelter homes in Jharkhand under DAY-NULM programme (as on 9th November 2017)

| Sl. No. | City/ULB | Number of units | Capacity (in beds) |
|---------|------------------------------------|-----------------|--------------------|
| 1 | Ranchi Municipal Corporation | 2 | 100 |
| 2 | Jamshedpur Notified Area Committee | 1 | 50 |
| 3 | Mango Notified Area Committee | 1 | 50 |
| 4 | Adityapur Municipal Corporation | 1 | 50 |
| 5 | Deoghar Municipal Corporation | 1 | 50 |
| 6 | Hazaribagh Municipal Corporation | 1 | 50 |
| 7 | Dhanbad Municipal Corporation | 1 | 50 |
| 8 | Chas Municipal Corporation | 1 | 50 |
| 9 | Garhwa Municipal Council | 1 | 50 |
| 10 | Chatra Municipal Council | 1 | 50 |
| 11 | Ramgarh Municipal Council | 1 | 50 |
| 12 | Latehar Nagar Parishad | 1 | 50 |
| 13 | Saraikela Nagar Panchayat | 1 | 50 |
| 14 | Sahibganj Municipal Council | 1 | 50 |
| 15 | Dumka Municipal Council | 1 | 50 |
| 16 | Simdega Municipal Council | 1 | 50 |
| 17 | Gumla Municipal Council | 1 | 50 |

Source: Urban Development & Housing Department, Government of Jharkhand, as obtained on 9th November 2017 from (<http://udhd.jharkhand.gov.in/Programs/NULM/SheltersHomeless.aspx>)

Among the total 26 shelter homes constructed in Jharkhand under the DAY-NULM programme (as on 9th November 2017), Ranchi Municipal Corporation has the highest number of 11 DAY-NULM shelter homes (9 general and 2 women) followed by Jamshedpur Notified Area Committee with 6 shelter homes. These 26 shelter homes have a capacity of 648 persons, out of which 328 beds were occupied as on 9th November 2017. The 18 new shelter homes constructed in 17 cities/ULBs have a capacity of 50 beds each.

Urban Housing Schemes:

- **Pradhan Mantri Awas Yojana - Housing for All by 2022 (PMAY-HFA):**

‘Housing for all by 2022’ is a comprehensive mission launched by the central government on 25th June 2015. It is an initiative by the Prime Minister of India to provide affordable housing

to the urban poor including the slum dwellers. The implementation period of the mission is 2015-2022 during which central assistance is to be provided to the ULBs and other implementing agencies through the respective states for in situ rehabilitation of the existing slum dwellers using land as a resource through private participation, affordable housing in partnership, credit linked subsidy and provision of subsidy for beneficiary-led individual house construction or enhancement.

To implement this programme in Jharkhand, the Urban Development and Housing Department (UDHD) has selected 41 ULBs of Jharkhand under the urban component of PMAY-HFA. The Government of India has already approved the DPR for 14 towns during December 2015, which includes all the ten class-I cities of Ranchi, Dhanbad, Jamshedpur

urban agglomeration (which includes Jamshedpur, Aditiyapur, Mango and Jugsalai), Chas (including Bokaro), Giridih, Hazaribagh and Deoghar. Among the class-II towns Phusro, Ramgarh urban agglomeration, Medininagar, Gumla and Lohardaga were included. The two

medium-sized towns included are Dumka and Chirkunda. For the financial year 2015-16, construction of 16,416 dwelling units from demand survey of beneficiaries was finalized with the total construction cost of Rs.584.65 crores which has been approved for 14 ULBs.

Table 5.10: Pradhan Mantri Awas Yojana (Urban) - Housing for All: Financial progress (including RAY and CLSS component*) (as on 23rd October 2017)

| State/ UT | Project Proposal Considered | Financial Progress (in Rs crores) | | |
|---|-----------------------------|-----------------------------------|--------------------|-----------|
| | | Investment | Central Assistance | |
| | | | Involved | Released |
| Jharkhand | 222 | 3,559.87 | 1,474.47 | 453.24 |
| Sub- total (major states): - | 5,765 | 1,49,937.29 | 41,862.90 | 11,329.17 |
| Grand total (major states + NE states + UTs): - | 5,974 | 1,54,633.92 | 44,371.40 | 12,165.53 |

*Note: RAY- Rajiv Awas Yojana; CLSS- Credit Linked Subsidy Scheme

Source: PMAY-Urban, Monitoring Division, Ministry of Housing and Urban Affairs, Government of India

Table 5.11: Pradhan Mantri Awas Yojana (Urban) - Housing for All: Physical progress (including RAY and CLSS component*) (as on 23rd October 2017)

| State/ UT | Project Proposal Considered | Physical Progress (in Numbers) | | | |
|--|-----------------------------|--------------------------------|---------------------------|-----------|----------|
| | | Houses | | | |
| | | Involved | Grounded for construction | Completed | Occupied |
| Jharkhand | 222 | 95,852 | 59,951 | 7,888 | 6,718 |
| Sub- total (major states) | 5,765 | 27,02,426 | 11,72,341 | 2,11,129 | 1,71,456 |
| Grand total (major states + NE states + UTs) | 5,974 | 28,61,201 | 12,22,651 | 2,16,435 | 1,76,157 |

*Note: RAY- Rajiv Awas Yojana; CLSS- Credit Linked Subsidy Scheme

Source: PMAY-Urban, Monitoring Division, Ministry of Housing and Urban Affairs, Government of India

The project details of PMAY-HFA (urban), according to the Urban Development and Housing Department, Government of Jharkhand, depict that there are total 77,688 beneficiaries during the period 2015-16 to 2017-18 (as on August 2017) who have benefitted from this housing scheme. The financial year-wise break-up of the number of beneficiaries reveal that

out of the 77,688 total beneficiaries over the entire period, there were 7739 beneficiaries during the initial year of 2015-16 which increased to 32,747 beneficiaries during 2016-17 and increased further to 37,202 beneficiaries during the current financial year 2017-18 (as on August 2017) (Figure 5.11).

Table 5.12: PMAY-HFA (Urban): Project details in Jharkhand, 2015-16 to 2017-18 (as on August 2017)

| | |
|---|----------------|
| Total Number of Approved Projects | 180 |
| Number of Beneficiaries | 77,688 |
| Total Project Cost | 2813.08 crores |
| Total Government of India Share@1.5 lakh | 1165.32 crores |
| Total Government of Jharkhand Share@0.75 lakh | 582.66 crores |
| Beneficiary Share@1.371 lakh | 1062.10 crores |

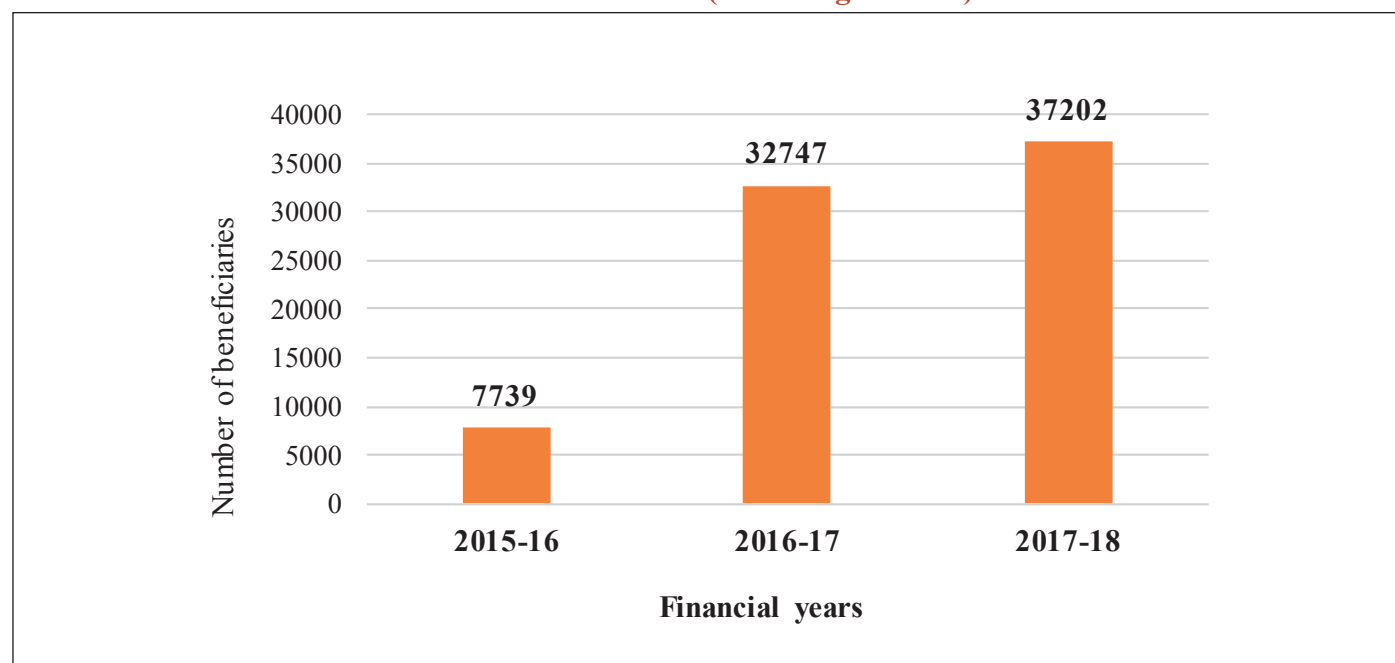
Source: PMAY-Housing for All (Urban), Newsletter, Ashiyana-Apna Ghar, Volume 1, Issue 1, August 2017, Government of Jharkhand

Table 5.13: PMAY-HFA (Urban): Number of beneficiaries in Jharkhand by various phases (as on August 2017)

| Financial year | Phases | Number of beneficiaries |
|----------------|----------|-------------------------|
| 2015-16 | Total | 7739 |
| 2016-17 | Phase I | 19933 |
| | Phase II | 12814 |
| | Total | 32747 |
| 2017-18 | Phase I | 20430 |
| | Phase II | 16772 |
| | Total | 37202 |

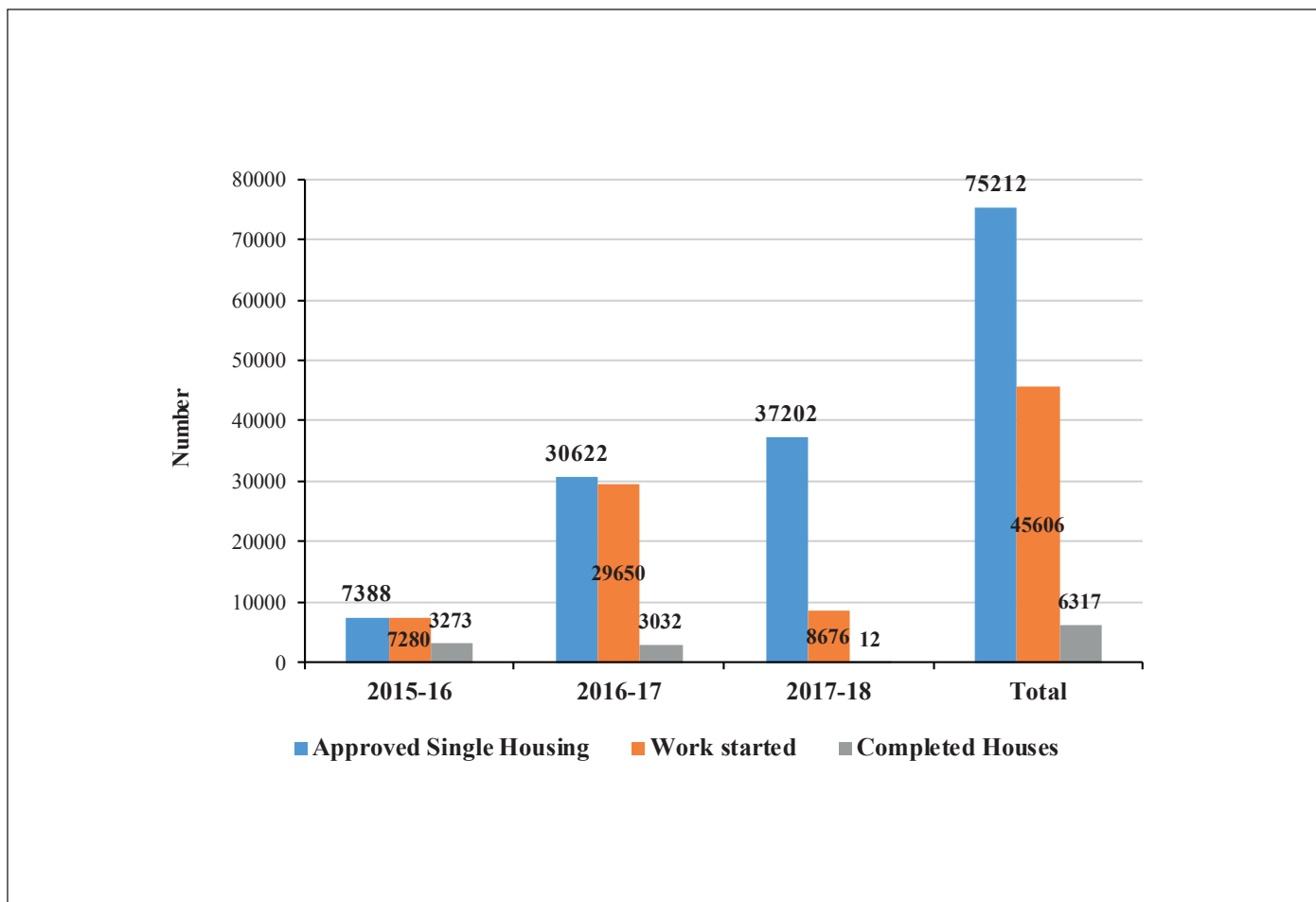
Source: PMAY-Housing for All (Urban), Newsletter, Ashiyana-Apna Ghar, Volume 1, Issue 1, August 2017, Government of Jharkhand

Figure 5.11: Number of beneficiaries of PMAY-HFA (Urban) in Jharkhand, 2015-16 to 2017-18 (as on August 2017)



Source: PMAY-Housing for All (Urban), Newsletter, Ashiyana-Apna Ghar, Volume 1, Issue 1, August 2017, Government of Jharkhand

Figure 5.12: Status of construction of houses under PMAY-HFA (Urban) in Jharkhand, 2015-16 to 2017-18 (as on August 2017)



Source: PMAY-Housing for All (Urban), Newsletter, Ashiyana-Apna Ghar, Volume 1, Issue 1, August 2017, Government of Jharkhand

The status of construction of houses in the 41 ULBs of Jharkhand under PMAY-HFA (urban) during the period 2015-16 to 2017-18 depict that the construction work has been completed for 6317 houses while the construction work for 45606 houses was under process as on August 2017.

- **Rajiv Awas Yojana (RAY):**

Although RAY was discontinued by Government of India in May 2015, the programme has been operational in 3 cities of Jharkhand viz. Chas, Dhanbad and Ranchi. The project was cancelled in Jamshedpur on 19th May 2015. Under this

programme, construction of 3931 dwelling units was sanctioned out of which construction of 2343 dwelling units has been completed with a completion rate of 59.6 per cent for the state. The remaining 683 dwelling units are under construction and 905 dwelling units are non-starters as on 3rd October 2017. Among the 2343 completed dwelling units in the state, 1173 dwelling units were occupied and the rest of them were unoccupied as reported by the Ministry of Housing and Urban Affairs, Government of India in the Monitoring Report dated 3rd October 2017 (Table 5.15).

**Table 5.14: City/town-wise financial progress of RAY in Jharkhand
(as on 3rd October 2017)**

| Sl. | City/Town | Financial Progress (Rs in Crores) | | | | | | |
|--------------|-------------|-----------------------------------|----------------|---------------|---------------|---------------|-----------------------|----------------------|
| | | Project Cost | Central Share | | | Pending UC* | Balance ACA for Claim | Excess Central Share |
| | | | Approved | Released | Adjusted | | | |
| 1 | Bokaro-Chas | 19.57 | 9.33 | 3.59 | - | | 5.74 | - |
| 2 | Dhanbad (1) | 59.37 | 26.1 | 20.01 | - | 12.55 | 6.09 | - |
| 3 | Dhanbad (2) | 53.99 | 23.63 | 18.12 | - | 9.06 | 5.51 | - |
| Sub-total: - | | 113.36 | 49.73 | 38.13 | - | 21.61 | 11.6 | - |
| 4 | Jamshedpur | Project Cancelled on 19-May-15 | - | 3.88 | - | 3.88 | - | 3.88 |
| 5 | Ranchi | 79.82 | 38.08 | 14.65 | - | | 23.43 | - |
| Total: - | | 212.74 | 97.15 | 60.25 | - | 25.49 | 40.78 | 3.88 |
| Grand Total: | | 6,323.04 | 3465.91 | 2489.6 | 276.79 | 824.78 | 1,491.26 | 514.96 |

Source: Monitoring Report dated 3rd Oct 2017, Monitoring Division, Ministry of Housing and Urban Affairs, Government of India

**Table 5.15: City/town-wise physical progress of RAY in Jharkhand
(as on 3rd October 2017)**

| Sl. | City/Town | Physical Progress (in Numbers) | | | | | |
|--------------|-------------|--------------------------------|--------------|--------------|---------------|--------------|--------------|
| | | Houses | | | Non-Starter | Occupied | Unoccupied |
| | | Sanctioned | Completed | In-Progress | | | |
| 1 | Bokaro-Chas | 383 | 236 | 100 | 47 | 8 | 228 |
| 2 | Dhanbad | 1058 | 616 | 50 | 392 | 556 | 60 |
| 3 | Dhanbad | 925 | 685 | 45 | 195 | 593 | 92 |
| Sub-total: - | | 1983 | 1301 | 95 | 587 | 1,149 | 152 |
| 4 | Jamshedpur | - | - | - | - | - | - |
| 5 | Ranchi | 1565 | 806 | 488 | 271 | 16 | 790 |
| Total: - | | 3931 | 2343 | 683 | 905 | 1,173 | 1,170 |
| Grand Total: | | 117707 | 41942 | 47475 | 28,290 | 21949 | 19993 |

Source: Monitoring Report dated 3rd Oct 2017, Monitoring Division, Ministry of Housing and Urban Affairs, Government of India

Among the total 3931 dwelling units sanctioned in Jharkhand, 1983 were sanctioned for the city of Dhanbad and 1565 were sanctioned for Ranchi city. The remaining 383 dwelling units were sanctioned for Chas. The rate of completion of the dwelling units was 65.6 per cent for Dhanbad, 61.6 per cent for Chas and 51.5 per cent for Ranchi city (Table 5.15).

- **Basic Services for Urban Poor (BSUP):**

BSUP is a centrally assisted housing scheme under Ministry of Housing and Poverty Alleviation for the construction of houses and infrastructures. It is operational in two cities of Jharkhand viz. Ranchi and Dhanbad. Under this programme, construction of 2490 dwelling units was sanctioned for Jharkhand out of which construction of 2103 dwelling

units was completed and remaining 387 were under construction as on 16th February 2016.

• **Integrated Housing and Slum Development Programme (IHSDP):**

IHSDP is a centrally assisted housing scheme under Ministry of Housing and Poverty Alleviation for the construction of houses and infrastructures. It is operational in ten cities of Jharkhand with one project

each in Chaibasa, Chatra, Medininagar, Giridih, Gumla, Hazaribagh, Lohardaga, Mihijam, Phusro and Saraikela. Under this programme, construction of 7613 dwelling units was sanctioned in these cities and towns out of which construction of 5164 dwelling units was completed and 2449 dwelling units were under construction and among the 5164 completed dwelling units, 5058 were occupied as on 9th December 2015

Table 5.16: City/town-wise projects under IHSDP in Jharkhand, 2015-16

| Sl. | State/City/Town | Approved date | Project title |
|-----|--------------------------|---------------|--|
| 1 | Chaibasa | 5th Jan 2009 | IHSDP Scheme for Chaibasa |
| 2 | Chatra | 5th Aug 2010 | 932 in-situ DUs IHSDP scheme at Chatra (Phase-I) |
| 3 | Medininagar (Daltonganj) | 26th Feb 2009 | 969 DUs IHSDP scheme for Medininagar |
| 4 | Giridih | 27th Feb 2009 | 1132 DUs IHSDP scheme at Giridih |
| 5 | Gumla | 24th Jan 2008 | 1292 DUs IHSDP scheme at Gumla |
| 6 | Hazaribagh | 21st Jan 2009 | 1230 DUs IHSDP scheme for Hazaribagh |
| 7 | Lohardaga | 21st Jan 2009 | 1623 DUs IHSDP scheme for Lohardaga |
| 8 | Mihijam | 17th Jan 2011 | 1391 DUs IHSDP scheme at Mihijam |
| 9 | Phusro | 26th Feb 2009 | 886 DUs IHSDP scheme at Phusro |
| 10 | Saraikela | 5th Aug 2010 | 1353 New DUs IHSDP scheme at Saraikela |

Source: Ministry of Housing and Urban Affairs, Government of India

Table 5.17: City/town-wise physical progress of IHSDP in Jharkhand, 2015-16

| Sl. | State/City/Town | Physical progress (in numbers) | | | |
|--------------------------------------|--------------------------|--------------------------------|-------------|------------------------|-------------|
| | | Dwelling units | | | |
| | | Sanctioned | In progress | Construction completed | Occupied |
| 1 | Chaibasa | 380 | 4 | 376 | 270 |
| 2 | Chatra | 897 | 684 | 213 | 213 |
| 3 | Medininagar (Daltonganj) | 420 | 9 | 411 | 411 |
| 4 | Giridih | 1132 | 126 | 1006 | 1006 |
| 5 | Gumla | 863 | 503 | 360 | 360 |
| 6 | Hazaribagh | 947 | 262 | 685 | 685 |
| 7 | Lohardaga | 1623 | 611 | 1012 | 1012 |
| 8 | Mihijam | 816 | 609 | 207 | 207 |
| 9 | Phusro | 204 | 86 | 118 | 118 |
| 10 | Saraikela | 331 | 296 | 35 | 35 |
| Total of Jharkhand for 10 projects* | | 7613 | 3190 | 4423 | 4317 |
| Total of Jharkhand for 10 projects** | | 7613 | 2449 | 5164 | 5058 |

*As on 16th September 2015; Source: Ministry of Housing and Urban Affairs, Government of India

**As on 9th December 2015; Source: Lok Sabha Unstarred Question No.1710, dated on 09.12.2015.

Urban Transport:

‘Urban transport’ is a broad name for a sector that covers a variety of modes of intra-city transport for people and goods, including walking, bicycling, non-motorised transport such as rickshaws etc, private personal transport, i.e., cars and motorbikes; public transport which could be rail- or bus-based; private-public transport such as taxis and para-transit modes among others. Urban transportation enables movement of goods and people of Jharkhand from one location to another within an urban area.

The cities planned with transport modes as an integrated system are more likely to evolve and prosper as centres of trade, commerce, industry,

education, tourism and services. Generally, cities ranking at the top of surveys measuring the urban quality of life have a high quality of urban transport systems that prioritize public transport and non-motorized modes. The Urban Development and Housing Department, Government of Jharkhand has proposed the implementation of various transport projects in different ULBs of the state which include city bus services in the three major cities of Ranchi, Dhanbad and Jamshedpur; major roads development mainly in Ranchi city; metro rail, flyover and multilevel car parking in Ranchi city; comprehensive mobility plan for Ranchi, Dhanbad, Jamshedpur, Chas, Phusro and Chaibasa; and strategic mobility plan for Ranchi, Dhanbad and Deoghar cities.

Table 5.18: City/town-wise proposed urban transport projects in Jharkhand

| Projects | Cities/towns/localities |
|-----------------------------|--|
| City bus services | Ranchi, Dhanbad and Jamshedpur |
| Major roads development | Airport to Birsa Chowk, Rajbhawan to Birsa Chowk, Kantatoli to Rajbhawan (Via Circular Road), Rajbhawan to Booty More, Rajbhawan to Hinoo Chowk Via Main Road |
| Metro rail | Ranchi |
| Flyover | In Ratu road chowk and Kantatoli Chowk, Ranchi |
| Multilevel car parking | Shivpuri Hinoo, Ranchi |
| Comprehensive mobility plan | Ranchi, Dhanbad, Jamshedpur, Chas, Phusro, Chaibasa |
| Strategic mobility plan | Ranchi, Dhanbad and Deoghar |

Source: Urban Development and Housing Department, Government of Jharkhand

- **Bus Stand Project**

The Urban Development and Housing Department, Government of Jharkhand has proposed the implementation of various bus

stand projects in different ULBs of the state which include the class-I cities of Ranchi, Deoghar, Dhanbad, Jamshedpur, Mango, Giridih and Hazaribagh.

Table 5.19: ULB-wise status of the proposed bus stand projects in Jharkhand

| District | ULB | Status |
|---------------------|----------------------------------|--|
| Bokaro | Phusro Nagar Parishad | DDPR Approved on 04/11/2016 |
| Deoghar | Deoghar Municipal Corporation | FR Approved on 23/09/2016 |
| Dhanbad | Dhanbad Municipal Corporation | FR Approved on 11/08/2016 |
| Dumka | Dumka Nagar Parishad | DDPR under review |
| Purbi Singhbhum | Mango NAC | FR Approved on 02/09/2016 |
| Purbi Singhbhum | Jamshedpur NAC | DDPR Approved on 04/11/2016 |
| Giridih | Giridih Nagar Parishad | DDPR Approved on 04.11.2016 |
| Godda | Godda Nagar Panchayat | DDPR Approved on 04/11/2016 |
| Gumla | Gumla Nagar Parishad | DDPR Approved on 04/11/2016 |
| Hazaribagh | Hazaribagh Municipal Corporation | FR Approved on 24/09/2016 |
| Jamtara | Jamtara NP | FR Approved on 28/10/2016 |
| Koderma | Jhumritilaiya Nagar Parishad | DDPR Approved on 04/11/2016 |
| Palamu | Medininagar Nagar Parishad | DDPR Approved on 04/11/2016 |
| Ranchi | Ranchi Municipal Corporation | Stakeholder meeting is to be held in the ULB |
| Ranchi | Ranchi Municipal Corporation | FR approved on 11.08.2016 |
| Simdega | Simdega NP | FR Approved on 28/06/2016 |
| Pashchimi Singhbhum | Chaibasa Nagar Parishad | FR Approved on 01.07.2016 |

Source: Urban Development and Housing Department, Government of Jharkhand

• **Inter-state bus terminals (ISBT) Project**

The Urban Development and Housing Department, Government of Jharkhand has

proposed the implementation of inter-state bus terminals in four ULBs of the state which include ISBT Deoghar, ISBT Dhanbad, ISBT Mango and ISBT Ranchi.

Table 5.20: ULB-wise proposed ISBT projects in Jharkhand

| District | ULB | Project Name |
|-----------------|-------------------------------|----------------------------------|
| Deoghar | Deoghar Municipal Corporation | ISBT, Deoghar |
| Dhanbad | Dhanbad Municipal Corporation | ISBT Dhanbad |
| Purbi Singhbhum | Mango NAC | ISBT, Mango NAC, Purbi Singhbhum |
| Ranchi | Ranchi Municipal Corporation | ISBT Ranchi |

Source: Urban Development and Housing Department, Government of Jharkhand

• **Transport Nagar:**

The Urban Development and Housing Department, Government of Jharkhand has

proposed the implementation of ‘transport nagar’ projects in three ULBs of the state which include the class-I cities of Dhanbad, Ranchi and Mango.

Table 5.21: ULB-wise proposed Transport Nagar projects in Jharkhand

| District | ULB | Project Name |
|-----------------|-------------------------------|-----------------|
| Dhanbad | Dhanbad Municipal Corporation | Transport Nagar |
| Purbi Singhbhum | Mango NAC | Transport Nagar |
| Ranchi | Ranchi Municipal Corporation | Transport Nagar |

Source: Urban Development and Housing Department, Government of Jharkhand

• **Road Project:**

The Urban Development and Housing Department, Government of Jharkhand has proposed the implementation of road construction projects in nine ULBs of the state which include the cities of Chas (in Bokaro district), Dhanbad (in Dhanbad district), Deoghar (in Deoghar district), Mango (in Purbi Singhbhum district) and Hazaribagh (in Hazaribagh district) as well as towns of Dumka (in Dumka district), Koderma (in Koderma district), Medininagar (in Palamu district) and Chaibasa (in Pashchimi Singhbhum district).

Conclusion:

With 24 per cent of its population living in urban areas, Jharkhand has immense scope for urbanization in the decades to come. But the stark inter-regional disparities in the spatial distribution of urban population and its growth being spatially confined in a limited number of urban centres can have far-reaching ramifications in the form of copious rise of the urban poor which remains residentially deprived and face deprivation in terms of other housing amenities as well. This is evident through the fact that about 72 percent of the total slum population of the state resides in the class-I cities alone.

Jharkhand has about 60 per cent of urban households residing in Census houses which were reported to be in ‘good’ condition. In terms of access to housing amenities among the urban households in the state, about 64 per cent have access to exclusive kitchen facility, about 90 per cent have access to electricity as the main source of lighting, about 40 per cent have access to closed waste water-outlet connection and about 72 per cent have access to improved sanitation in terms of the water-seal latrine facility exclusively for the household.

All the nine cities of Jharkhand surveyed for their cleanliness and sanitation status in Swachh Survekshan-2017 have substantially improved in rankings over the earlier surveys. Among these, Chas, Jamshedpur, Giridih and Hazaribagh appeared among the 100 cleanest cities/towns of India. Ranchi smart city has been proposed as a lighthouse project for other cities of the country. The major flagship schemes of urban development operational in the state such as AMRUT, DAY-NULM and PMAY-HFA (urban) aim to provide employment and livelihood opportunities, urban housing, housing amenities and services to the urban households including the urban poor. They are specifically targeted to inclusively improve the quality of life for the urban dwellers.

VI

AGRICULTURE AND ALLIED ACTIVITIES



In Jharkhand's rural economy, agriculture is one of the significant sectors, which leads to food security, income, price stability and livelihood for the majority. As per the Planning-cum-finance Department, Government of Jharkhand, more than 76 per cent of the people live in rural areas and 66.85 per cent of the total labour force is dependent on agriculture. According to the Directorate of Economics and Statistics, Jharkhand, the percentage contribution of agriculture and animal husbandry sector in state GSDP (base year 2011-12) is 12.50 in 2015-16 (A) and 12.75 per cent in 2016-17 (Pr). Therefore, it is vital to give priority to this sector, which continues to be the largest employment generating sector in the rural economy of Jharkhand.

Jharkhand is classified into three Agro-climatic zones

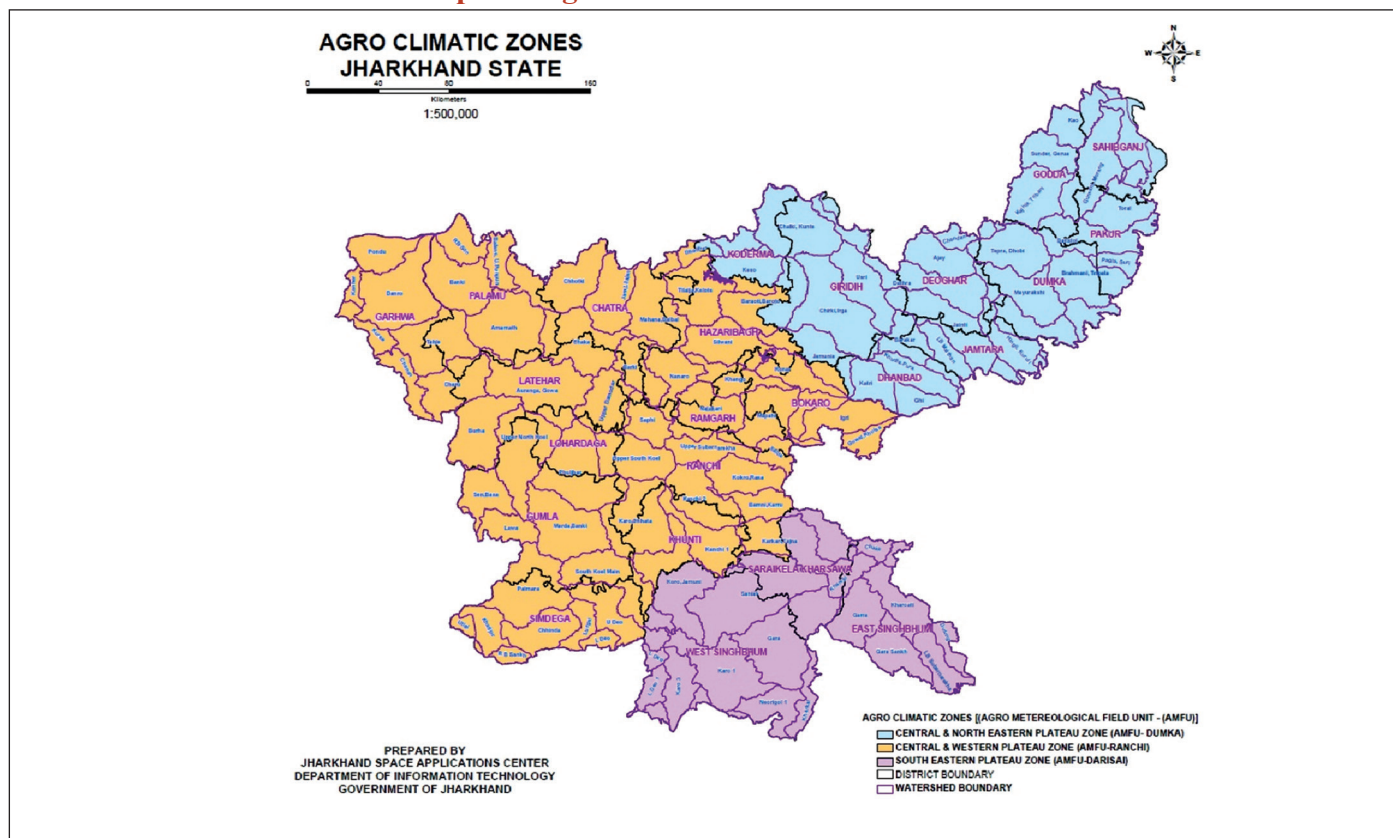
i.e. central north-eastern plateau, western plateau and south-eastern plateau. The central north-eastern plateau is characterized by humid and sub-humid tropical monsoon, the western plateau by humid to subtropical and south-eastern plateau by humid to sub-tropical monsoon (Map 6.1). According to the Indian Meteorological Department (IMD), the normal annual rainfall of Jharkhand is 1296.3mm (1951-2000)¹ and its climate ranges from dry semi-humid to humid semi-arid types. The maximum annual rainfall in Jharkhand happens during the monsoon season, which constitutes to 82 per cent and it lasts from mid-June to September. The amount of rainfall in the entire monsoon period determines the opportunity for the diverse cropping system performed by the farmers.

Table 6.1: Agro-climatic Zone of Jharkhand and its characteristics

| Agro-Climatic Zone | Districts | Characteristics |
|--|---|--|
| Central and Western Plateau Zone | Ranchi, Khunti, Bokaro, Hazaribagh, Ramgarh, Chatra, Garhwa, Palamu, Latehar, Lohardaga, Gumla, Simdega | Erratic and uneven distribution of rainfall; Coarse-textured soils; Crust formation on the soil surface; Low water retention capacity of the soils; Lack of safe runoff disposal and drying of the tanks |
| Central and North-Eastern Plateau Zone | Dumka, Sahibganj, Godda, Pakur, Deoghar, Giridih, Dhanbad, Jamtara, Koderma | Erratic and uneven distribution of rainfall; Low water retention capacity of the soils |
| South Eastern Plateau Zone | Pashchimi Singhbhum, Purbi Singhbhum, Saraikela | Uneven distribution of rainfall; Low water holding capacity, eroded soils; Shallow soil depth; Poor soil fertility |

1 India Meteorological Department (Ministry of Earth Sciences) Report No. SSO/IMD/HS/R. F. Report/01(2017)/23

Map 6.1: Agro-climatic zones of Jharkhand



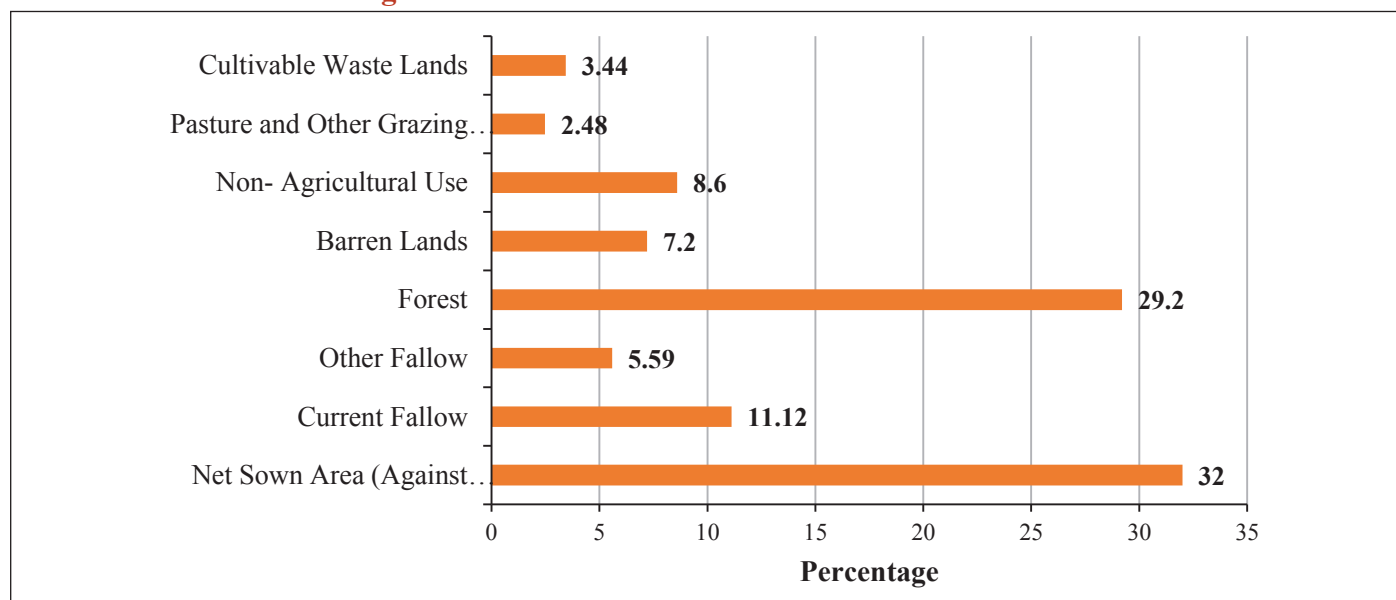
Source: Jharkhand Space Applications Centre (JSAC), Government of Jharkhand

Given the importance of the agricultural sector, the Department of Agriculture, Animal Husbandry and Cooperative, Government of Jharkhand, have taken various measures for its sustainable development. Such measures have been taken through implementing various schemes i.e. conversion of fallow land into cropped area, double cropping rice fallow scheme, agriculture mechanization promotional scheme for women SHGs, *Jalnidhi*, horticulture development scheme, organic certification and organic fertilizer production and centrally sponsored schemes viz. National Mission for Sustainable Agriculture, National Horticulture Mission and Soil Health Card scheme etc. which have promoted to development in the economic status of the farming community and enhanced the contribution of the agricultural sector in the GSDP.

Land Use Pattern

As per the Planning-cum-finance Department, Government of Jharkhand, the total geographical area of the state is 7.9 million hectares. Of this total area, the net sown area is 2.56 million hectares, accounting to be 32 per cent of the total geographical area. Around 29.2 per cent of the area is covered by forest and 7.2 per cent area accounts for barren land. The land under non-agricultural use constitutes 8.6 per cent, land under permanent pastures and other grazing lands is 2.48 per cent, and land under cultivable wasteland is 3.44 per cent. About 16.71 per cent of the total area falls under the current fallow and other fallow land. The current fallow land accounts for about 11.12 per cent of the total geographical area and other fallow land accounts for 5.59 per cent. The cropping intensity of Jharkhand, as per the Planning-cum-finance Department, Government of Jharkhand, was reported to be 126 per cent (Figure 6.1).

Figure 6.1: Details of Land Utilization of Jharkhand

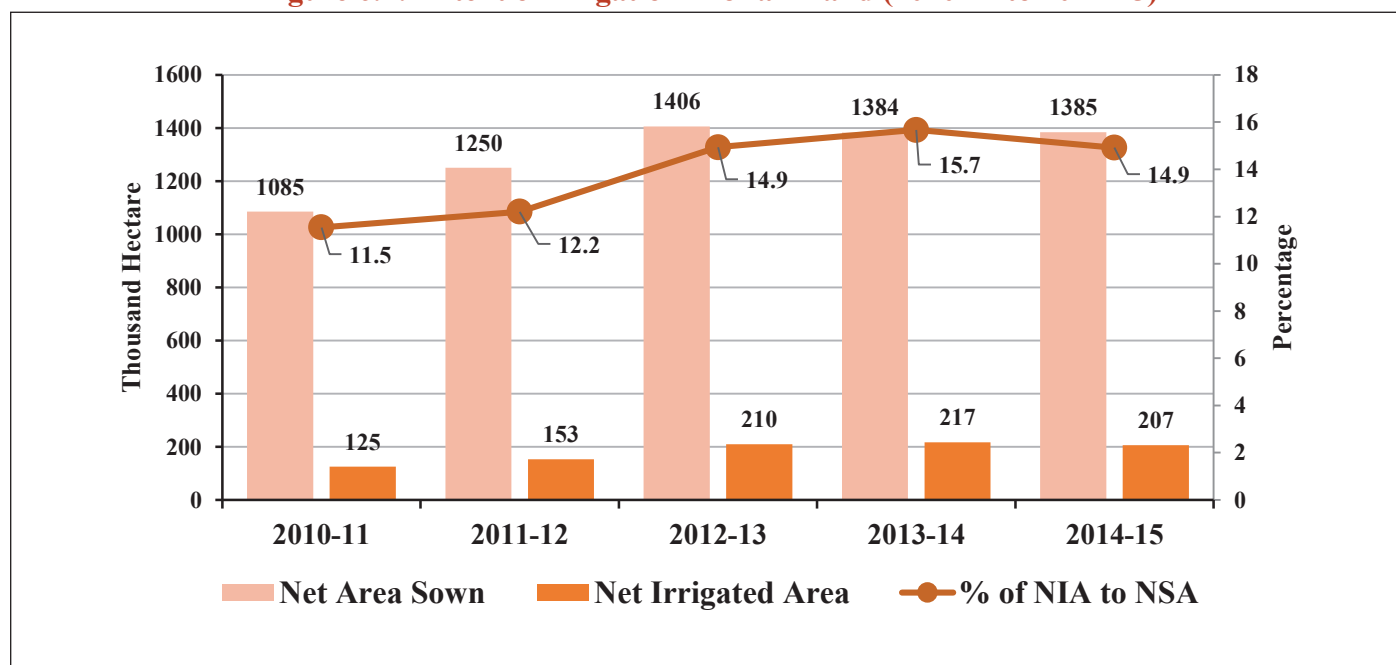


Source: Planning-cum-finance Department, Planning Division, Government of Jharkhand

According to the land use statistics of Jharkhand from 2010-11 to 2014-15 (based on the information from Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Government of India), the extent of irrigation in Jharkhand reveals that the net sown area (NSA) and net irrigated area (NIA) from 2010-11 to 2014-15 have witnessed

a 27.6 percentage increase in NSA, while NIA observed a 64.9 per cent increase during the same period. The percentage of net irrigated area to the net sown area has increased from 11.5 to 14.9 per cent during 2010-11 to 2014-15. However, it has declined from 15.7 per cent during 2013-14 to 14.9 per cent during 2014-15 (Figure 6.2).

Figure 6.2: Extent of irrigation in Jharkhand (2010-11 to 2014-15)

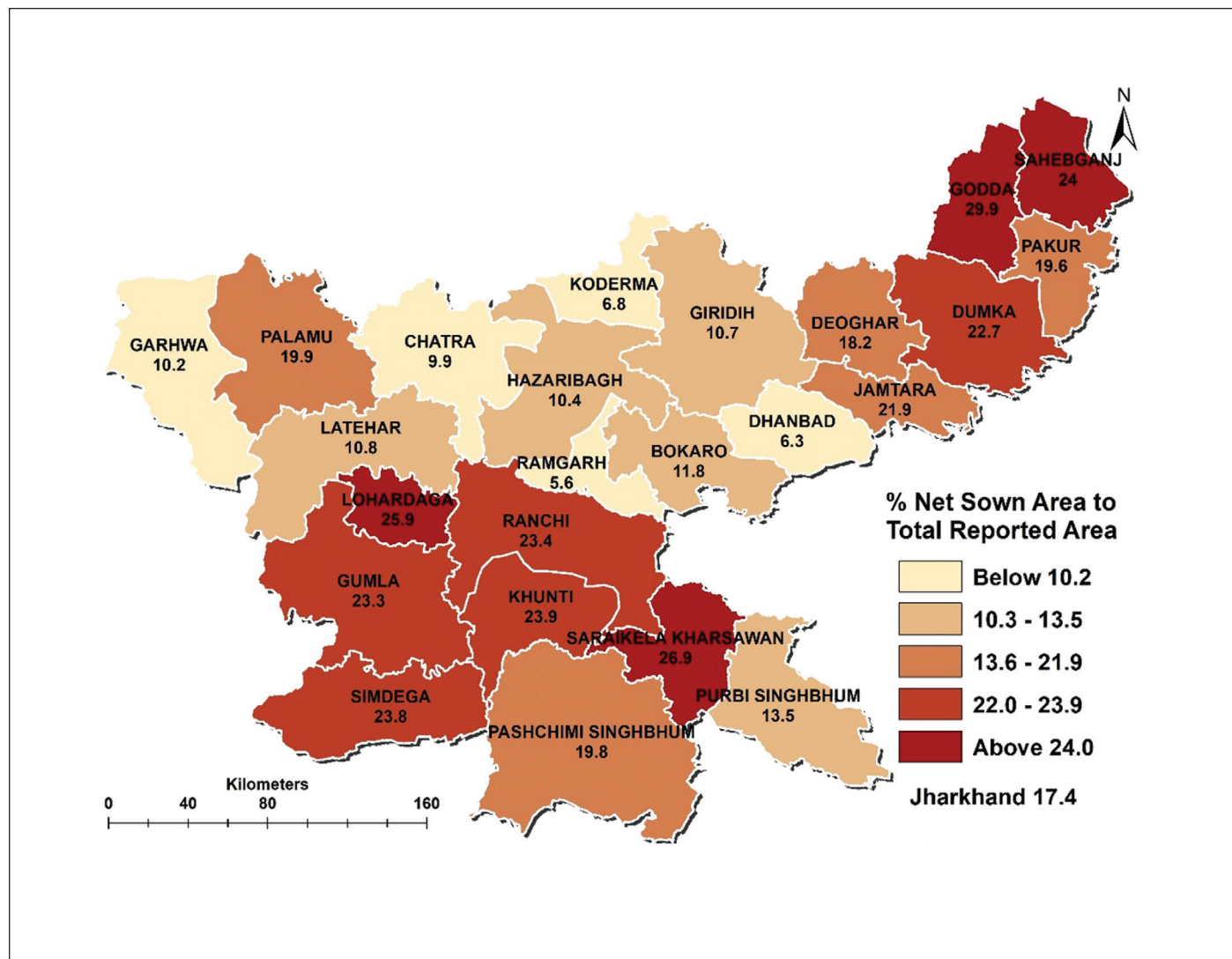


Source: Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Government of India

The district wise information of percentage net sown area to total reported area during 2014-15 shows that the Jharkhand has 17.6 per cent net sown area and the districts of Sahibganj, Godda, Lohardaga, and Saraikela have the maximum percentage of net sown area. Such districts form the agricultural belt of Jharkhand, which have favourable geographical

and topographical advantage for agricultural development. The districts which have a lower percentage of the net sown area are Garhwa, Chatra, Koderma, Ramgarh, and Dhanbad. These districts have less than 10.6 per cent of the net sown area in Jharkhand during 2014-15 (Map 6.2).

Map 6.2: District wise percentage of net sown area to total reported area of Jharkhand, (2014-15)



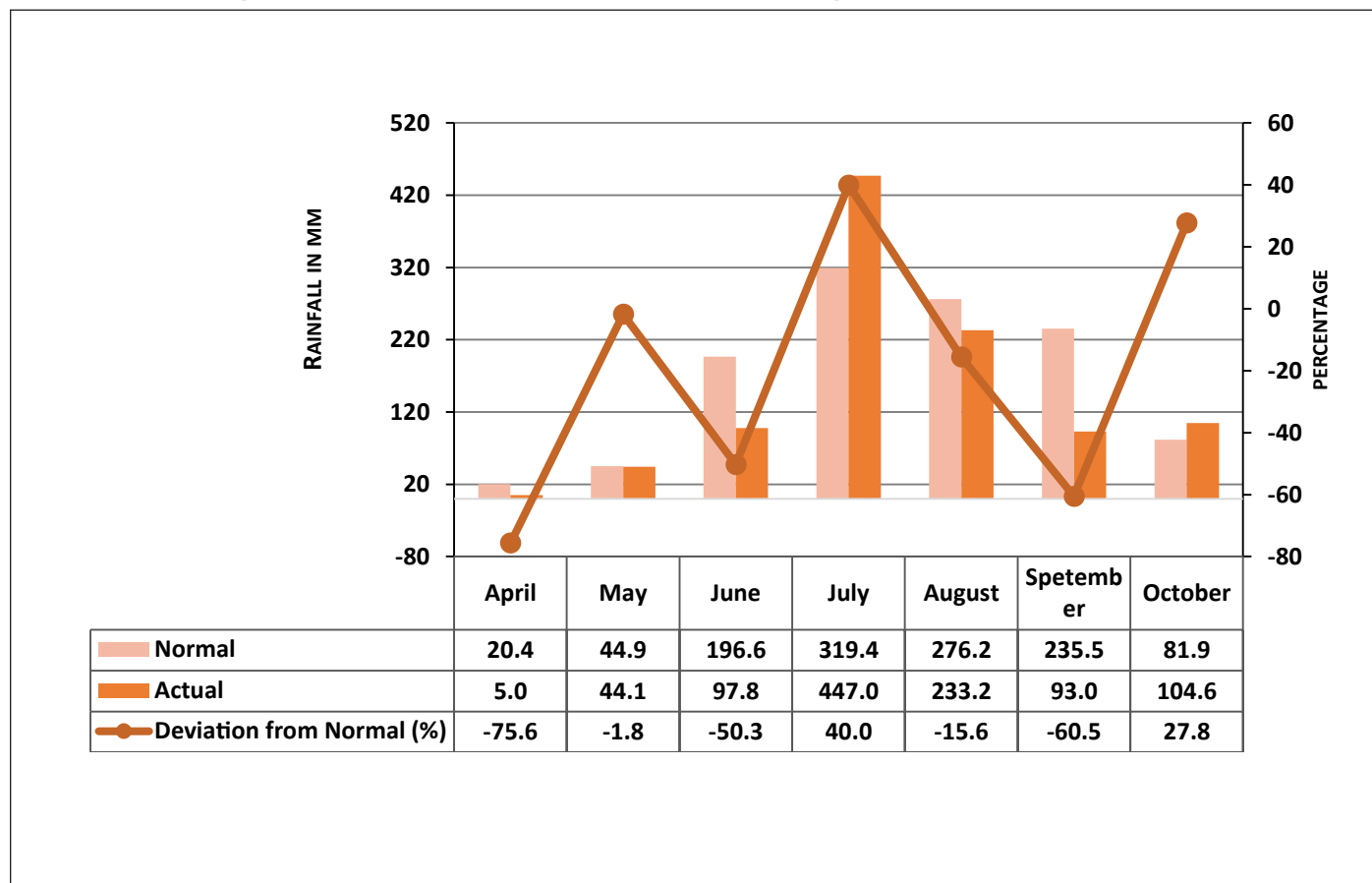
Source: Compiled using data from Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Government of India

Rainfall pattern in Jharkhand during 2017-18

The rainfall pattern in Jharkhand shows that rainfall was normal during the April to October 2017. During this period, excess rainfall was received in

the months of July and October, normal rainfall was received during the month of May and deficient rainfall was received in the months of April, June and September 2017 (Figure 6.3).

Figure 6.3: Rainfall in Jharkhand during June to October 2017



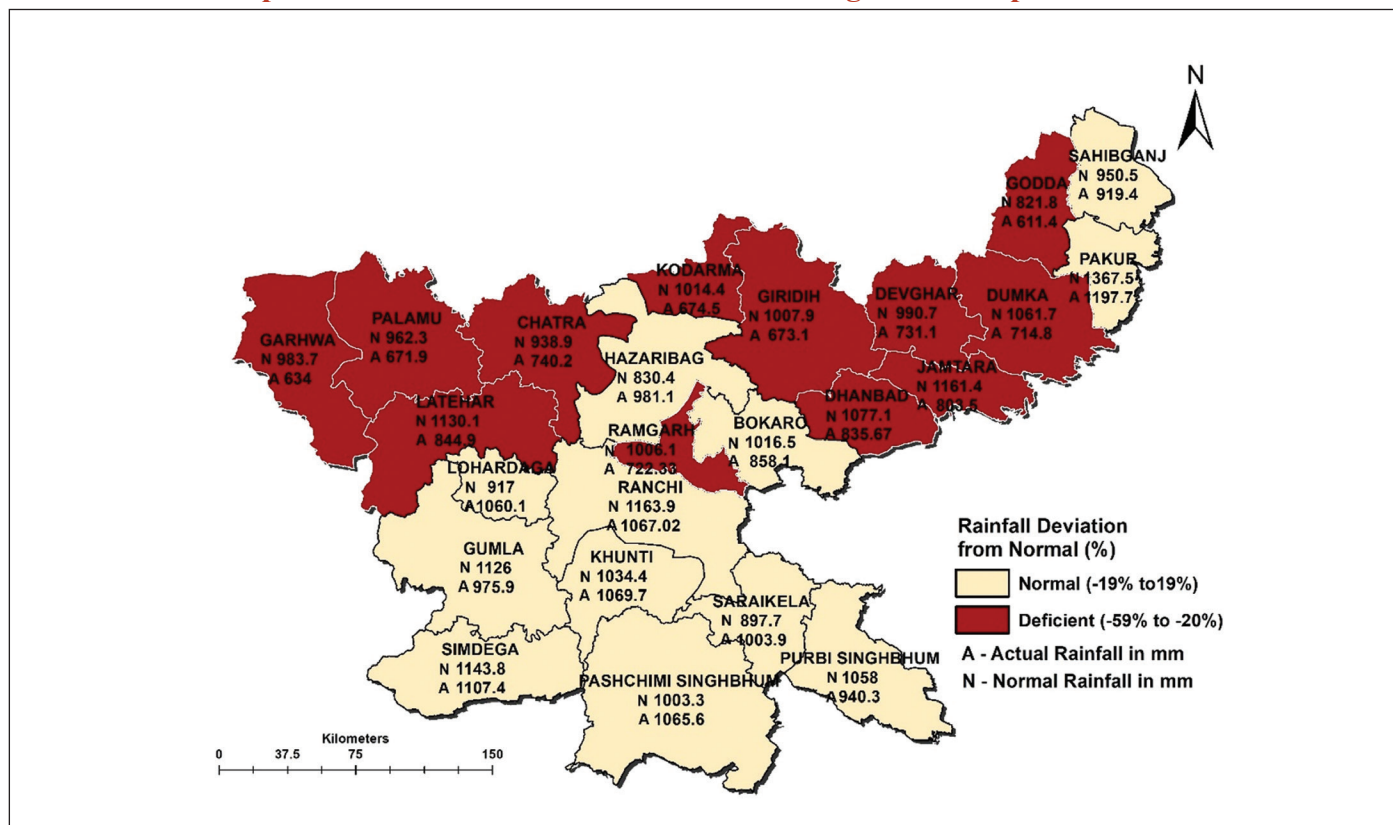
Source: Directorate of Agriculture, Government of Jharkhand

Monsoon Rainfall (June – September)

The aggregate monsoon rainfall for the entire Jharkhand state during 1st June to 30th September 2017 observed a negative 15 per cent deviation, which was a normal monsoon according to IMD. Deficient rainfall was received in the twelve districts of Jharkhand i.e. Garhwa, Palamu, Lahtehar, Chatra, Ramgarh, Koderma, Giridih, Dhanbad, Deogarh,

Dumka, and Godda. The rest of the districts of Hazaribagh, Bokaro, Lohardaga, Ranchi, Khunti, Gumla, Saraikela, Simdega Paschimi Singhbhum, Purbi Singhbhum, Gumla, Pakur, and Sahibganj have received normal rainfall during this monsoon year. Most of the deficient rainfall was observed in the northern districts of Jharkhand and most of the southern districts have received normal rainfall (Map 6.3).

Map 6.3: District wise rainfall condition during June to September 2017



Source: Compiled from Directorate of Agriculture, Government of Jharkhand

Seasonal production Scenario (2014-15 to 2016-17)

As per the Fourth Advanced Estimate 2016-17, total production of kharif season in Jharkhand is estimated at 550 thousand tonnes in 2016-17. It was much higher than the preceding year production figures (except in 2014-15). Similarly, the rabi season has also witnessed an improved performance in production compared to the preceding years. In 2016-17, 18 thousand tonnes of production are recorded, which is much higher than the 2014-15 and

2015-16 production. The season wise performance of production has been witnessed in rabi season, which has observed 84.1 per cent increase during 2014-15 to 2016-17. While in kharif season, the increase was only 17.8 per cent during the respective period.

In terms of yield (kg/ha.), the kharif season has observed a decline during 2014-15 to 2016-17. From 2014-15 to 2016-17 the yield in kharif season has declined by 24 per cent, whereas, the yield during the rabi season has witnessed a 13.2 per cent increase. The yield wise performance is much better in rabi season as compared to the kharif season (Table 6.2).

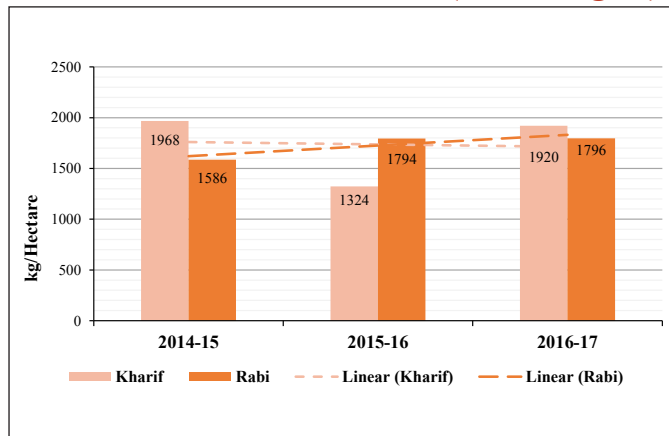
Table 6.2: Jharkhand: Season-wise Area, Production and Yield 2014-15 to 2016-17

(Area in 000 ha, Production in 000 tonnes, Yield in kg/ha)

| Season-wise | 2014-15 | | | 2015-16 | | | 2016-17 | | |
|----------------------|---------|------------|-------|---------|------------|-------|---------|------------|-------|
| | Area | Production | Yield | Area | Production | Yield | Area | Production | Yield |
| Kharif Season | 264 | 467 | 1968 | 284 | 376 | 1324 | 286 | 550 | 1920 |
| Rabi Season | 6 | 10 | 1586 | 5 | 9 | 1794 | 10 | 18 | 1796 |

Source: Directorate of Agriculture, Government of Jharkhand

Figure 6.4: Trends of Seasonal Yield in Jharkhand 2014-15 to 2016-17 (Yield in kg/ha)



Source: Directorate of Agriculture, Government of Jharkhand

Status of total crop production (2014-15 to 2016-17)

As per the final advance estimate from 2014-15 to 2016-17, the area, production, and yield of total pulses, food grains, and oilseeds have witnessed the increasing trends during the respective period (Table 6.3). The percentage change in area under total pulses indicate 35 per cent increase along with

41 per cent increase in production during 2014-15 to 2016-17. The yield of total pulses has witnessed a 4.46 per cent increase during the same period. The area, production, and yield under total pulses were comparatively lower in the 2015-16 due to a drought year. But in the consecutive year, its performance improved significantly.

The estimates of total foodgrains show that the percentage change in area under foodgrains has increased to 19.64 per cent during 2014-15 to 2016-17. However, the production of foodgrains has witnessed only 17.25 per cent increase, which was not at par with the increase in the area under foodgrains during the same period. The yield of food grains has observed a negative change of 2.01 per cent during the respective years. The area, production, and yield of oilseeds have undergone a positive percentage change from 2014-15 to 2016-17. The percentage increase in the area of oilseeds has been marked with a 34.8 per cent increase. The production during the respective period has increased along with the yield, which has witnessed 46.3 and 8.6 per cent increase respectively (Table 6.4).

Table 6.3. Area, production, and yield of total pulses, foodgrains, and oilseeds in Jharkhand (2014-15 to 2016-17)

Area in 000 ha, Production in 000 tonnes, Yield in kg/ha (Based on Final Advanced Estimate)

| Crops | 2014-15 | | | 2015-16 | | | 2016-17 | | |
|--------------------------------|---------|------------|-------|---------|------------|-------|---------|------------|-------|
| | Area | Production | Yield | Area | Production | Yield | Area | Production | Yield |
| Total Pulses ² | 595 | 597 | 1004 | 553 | 495 | 895 | 805 | 844 | 1049 |
| Total Food grains ³ | 2552 | 5740 | 2249 | 2631 | 3768 | 1432 | 3054 | 6730 | 2204 |
| Total Oilseeds ⁴ | 268 | 180 | 674 | 283 | 188 | 665 | 361 | 264 | 732 |

Source: Directorate of Agriculture, Government of Jharkhand

² In 'Total Pulses' includes crops like Tur, Urad, Moong, Gram, Other Kharif Pulses (Separately for each crop) Kulthi and Other Rabi Pulses Masoor Pea other.

³ In 'Total Foodgrains' includes crops like total cereals (rice, wheat, jowar, bajra, maize, ragi, small millets, barley and coarse cereals) and total pulses (Tur, Urad, Moong, Gram, Other Kharif Pulses (Separately for each crop) Kulthi and Other Rabi Pulses Masoor Pea other)

⁴ In 'Total Oilseeds' includes crops like groundnuts, castor seed, sesame, Niger seed, soya bean, sunflower, rapeseed, mustard, linseed and safflower.

Table 6.4 Percentage Change in area, production, and yield of total crops (in %) (2014-15 to 2016-17)

| Crops | Area | Production | Yield |
|-------------------|------|------------|-------|
| Total Pulses | 35.3 | 41.3 | 4.5 |
| Total Food grains | 19.6 | 17.3 | -2.0 |
| Total Oilseeds | 34.8 | 46.3 | 8.6 |

Source: Computed from the crop wise final advance estimates, 2014-15 to 2016-17

District-wise total crop yield (2016-17)

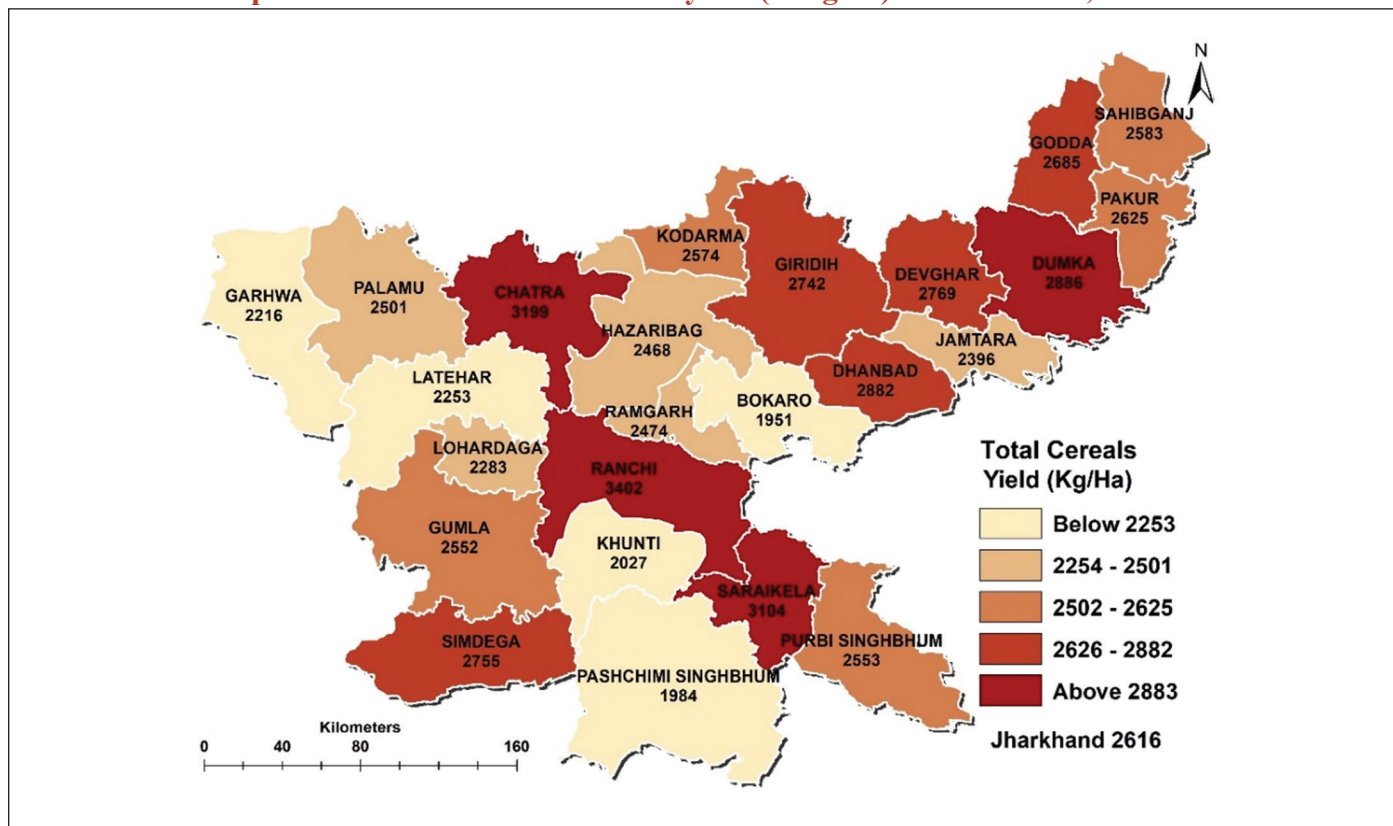
Table 6.5: Area, Production, and yield of total cereals, food grains, and oilseeds in Jharkhand (2016-17)

Area in 000 ha; Production in 000 tonnes; Yield in kg/ha (Based on Final Advanced Estimate)

| | Total Cereals | Total Pulses | Total Oilseeds |
|----------------------------|---------------|--------------|----------------|
| Area (in '000 ha) | 2241 | 805 | 369 |
| Production (in 000 tonnes) | 5864 | 844 | 268 |
| Yield (in kg/ha) | 2616 | 1049 | 727 |

Source: Directorate of Agriculture, Government of Jharkhand

Map 6.4: District wise total cereals yield (in kg/ha) of Jharkhand, 2016-17



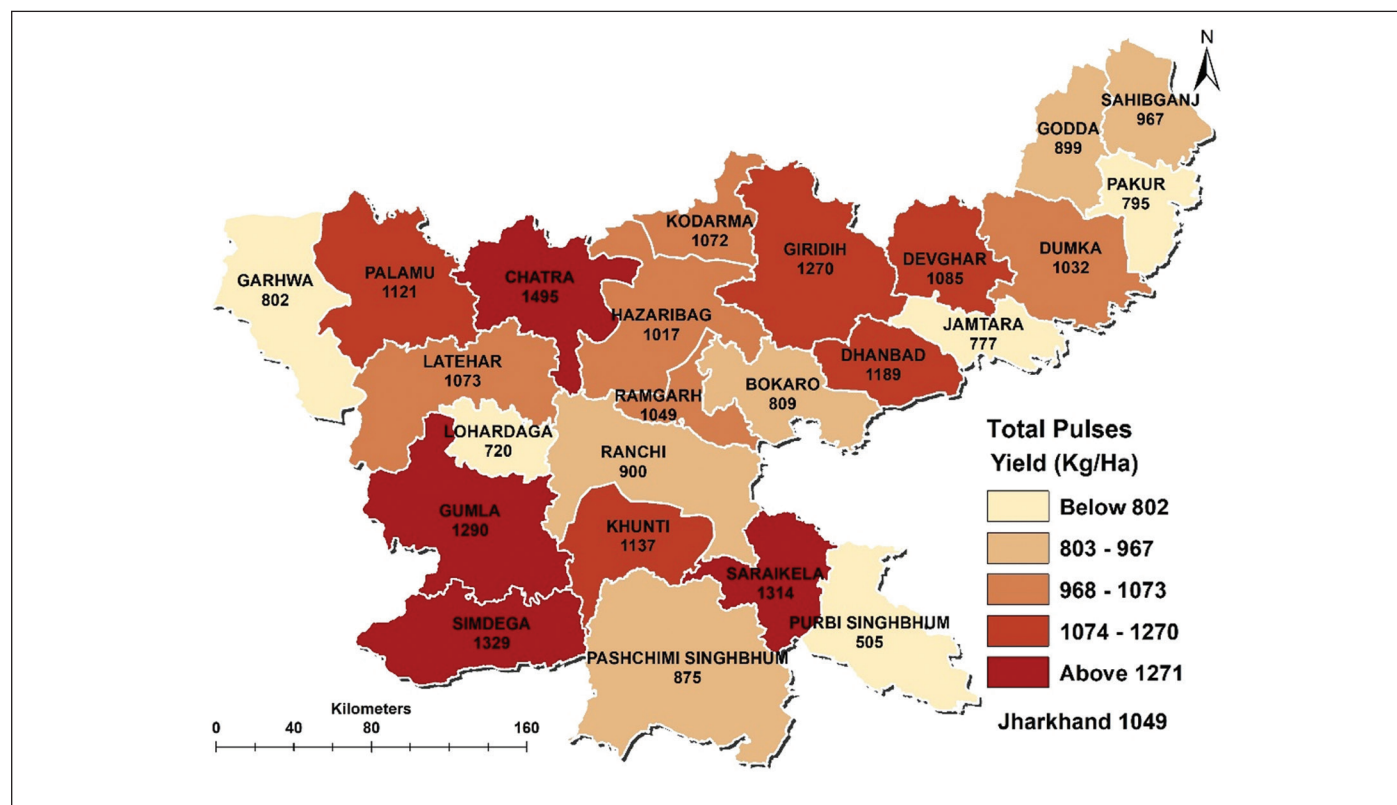
Source: Compiled using data from Directorate of Agriculture, Government of Jharkhand

According to the district wise final advance estimates of Jharkhand, 2016-17, the largest share in terms of area, production and yield are under cereals, which is followed by pulses and oilseeds. The total cereals estimate is based on the following crops i.e. paddy, wheat, and coarse cereals such as *jowar*, *bajra*, *mandua*, and maize. Similarly, total pulses include crops like *urad*, *tur*, *moong*, *kulthi*, *chana*, *masoor*, *matar* and other pulses. Lastly, the total oilseeds estimate is based on the crops - groundnuts, sesame, niger seed, sunflower, linseed, mustard, safflower, and castor.

The crop yield estimates are significant measure for understanding the dynamics of food security and the potential yield or yield gap. In 2016-17, the district-wise yield of total cereals in higher categories (higher than 2883 kg/ha.) is observed in the three districts of Jharkhand viz. Ranchi, Chatra, Saraikela, and Dumka. The lower yield categories (less than 2253 kg/ha.) districts are Garhwa, Bokaro, Latehar, Khunti and Pashchimi Singhbhum (Map. 6.4). In total pulses, higher yield (higher than 1271 kg/ha.) is observed in the districts of Chatra, Simdega, Gumla,

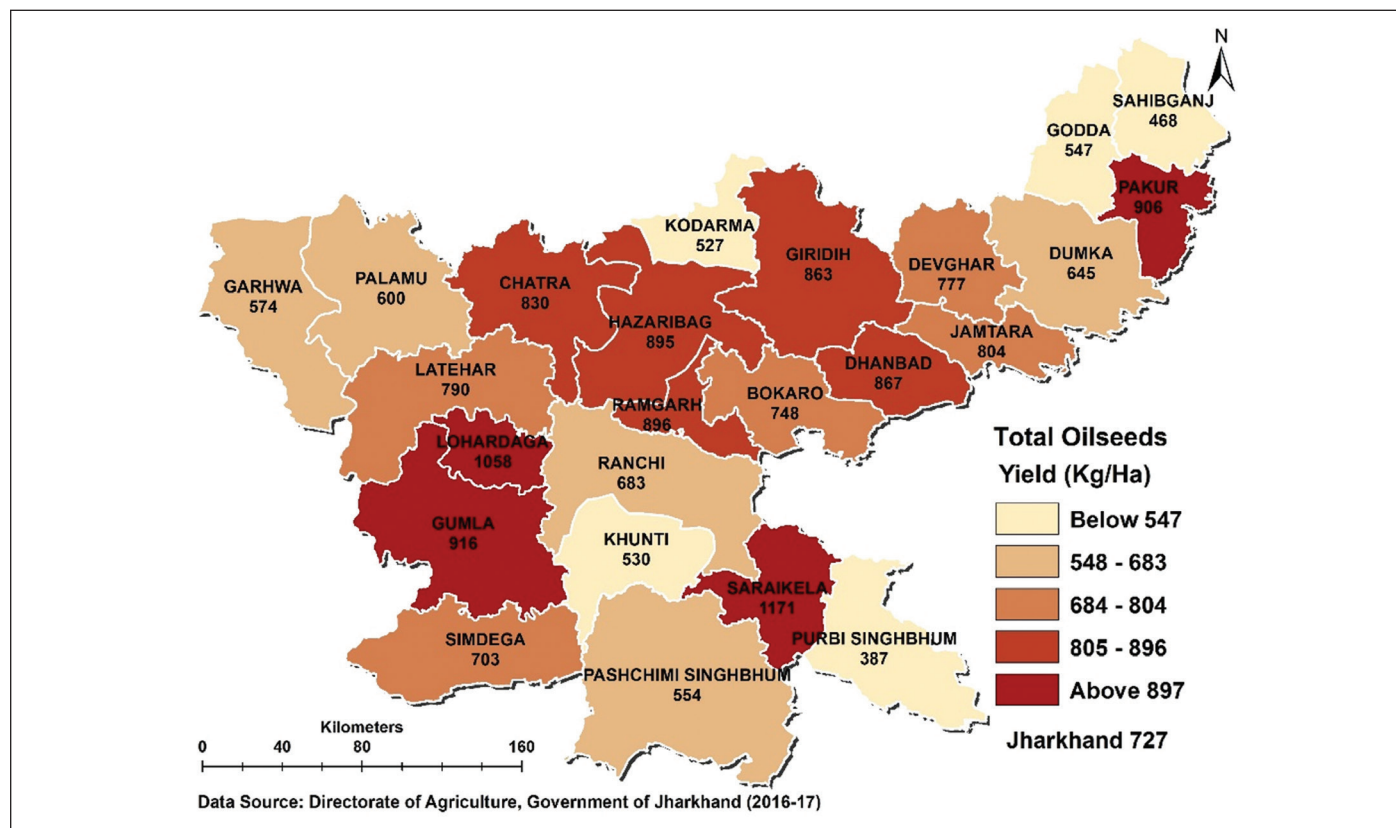
and Saraikela. Lower yield (less than 802 Kg/Ha.) in total pulses during 2016-17 is observed in the districts of Garhwa, Pakur, Jamtara, Lohardaga and Purbi Singhbhum (Map 6.5). The total oilseeds yield in Jharkhand during 2016-17 is highest (higher than 897 kg/ha.) in the districts of Pakur, Lohardaga, Gumla, and Saraikela, whereas, lower yield (less than 897 kg/ha.) in total oilseeds is witnessed in the districts of Purbi Singhbhum, Khunti, Koderma, Godda and Sahibganj (Map 6.6).

Map 6.5: District wise total pulses yield (in kg/ha) of Jharkhand, 2016-17



Source: Compiled using data from Directorate of Agriculture, Government of Jharkhand

Map 6.6 District wise total oilseeds yield (in kg/ha) of Jharkhand, 2016-17



Source: Compiled using data from Directorate of Agriculture, Government of Jharkhand

Fertilizers

To increase agricultural production, fertilizer is a significant critical input for improving soil fertility. According to the Planning-cum-finance Department, Planning Division, Government of Jharkhand 2017-

18, the per hectare consumption of fertilizer in Jharkhand was almost half of the corresponding national level up to the middle of last decade. The national ranking of the state in terms of fertilizer consumption is as follows:-

Table 6.6: Ranking in terms of N, P, K, NPK Consumption

| Fertilizer | N | P | K | NPK |
|------------|------------------|------------------|------------------|------------------|
| | 14 th | 21 st | 25 th | 19 th |

Source: Planning-cum-finance Department, Planning Division, Government of Jharkhand

As per the Planning-cum-finance Department, the consumption of fertilizer (based on the rabi & kharif season) has witnessed a 10 per cent declined from 2014-15 to 2016-17 (Table 6.7). In 2015-16, the percentage of consumption to the supply of fertilizer had a drastic increase, which could be linked with

the drought factor during this time period. The percentage supply of fertilizer has observed 14.8 per cent increase during 2014-15 to 2016-17, along with the percentage of supply to requirement from 12 per cent in 2014-15 to 53 per cent in 2016-17.

Table 6.7: Overall fertilizer requirement and consumption in Jharkhand during 2014-15 to 2016-17 (in tons)

| Years | Product | Requirement | Supply | Consumption | % of Consumption to Supply | % Supply to Requirement |
|---------|---------|-------------|--------|-------------|----------------------------|-------------------------|
| 2014-15 | UREA | 1700000 | 180179 | 180178 | 100 | 11 |
| | DAP | 75000 | 28500 | 26588 | 93 | 38 |
| | MOP | 16000 | 634 | 629 | 99 | 4 |
| | COMPLEX | 55000 | 26558 | 25118 | 95 | 48 |
| | SSP | 111760 | 3849 | 3585 | 93 | 3 |
| 2015-16 | UREA | 245000 | 166617 | 220012 | 132 | 68 |
| | DAP | 105000 | 68443 | 55620 | 81 | 65 |
| | MOP | 16000 | 3218 | 2982 | 93 | 20 |
| | COMPLEX | 85000 | 42848 | 34204 | 80 | 50 |
| | SSP | 91760 | 2398 | 3519 | 147 | 3 |
| 2016-17 | UREA | 300000 | 184486 | 163774 | 89 | 61 |
| | DAP | 95000 | 66026 | 36547 | 55 | 70 |
| | MOP | 13000 | 4355 | 1665 | 38 | 33 |
| | COMPLEX | 57500 | 19352 | 9043 | 47 | 34 |
| | SSP | 55000 | 1144 | 688 | 60 | 2 |

Source: Compiled from the Planning-cum-finance Department, Planning Division, Government of Jharkhand

Table 6.8: Total fertilizer requirement and consumption in Jharkhand during 2014-15 to 2016-17 (in tons)

| | Requirement | Supply | Consumption | % Consumption to Supply | % Supply to Requirement |
|---------|-------------|--------|-------------|-------------------------|-------------------------|
| 2014-15 | 1957760 | 239720 | 236098 | 98 | 12 |
| 2015-16 | 542760 | 283524 | 316336 | 112 | 52 |
| 2016-17 | 520500 | 275362 | 211717 | 77 | 53 |

Source: Compiled from the Planning-cum-finance Department, Planning Division, Government of Jharkhand

Flagship schemes for Agriculture

The government intends to promote organic agriculture in the given context of growing ecological imbalance. There is an Organic Farming Authority of Jharkhand (OFAJ) which provides land for the purpose of organic farming. It has identified about 26310 hectares of land for the same. The government has proposed to expand the identification of organic land in the financial year 2017-18. Under the central schemes for the betterment of agriculture, National Horticulture Mission, National Mission on

Agricultural Extension and Technology, National Food Security Mission, National Mission for Sustainable Agriculture, National Mission on Oil Seed and Oil palm, National Project on Management of Soil Health and Fertility, Paramparagat Krishi Vikash Yojana, Sub Mission on Agriculture Mechanization and Pradhan Mantri Krishi Sinchayi Yojana, are implemented in the state. In 2016, 3.53 lakh hectare output was insured under the Prime Minister Crop Insurance Scheme. This benefited 8.29 lakh farmers of the state. There was the installation of cold storage

of 5000 metric ton capacity in Deoghar, Giridih, and Gumla.

- **Exchange, Distribution and Seed Production**

This is one of the most important schemes of the Agriculture Department. It provides seed for *kharij*, *rabi*, and alternate cropping in case of deficient rainfall to the farmers at a subsidized rate. To increase self-sufficiency in seed availability, number of establishment of seed villages is being increased in the state. A provision of Rs 5000 lakh for the implementation of this scheme is proposed in 2017-18.

- **Agricultural Fair, Workshop, Training, Exposure, Award, Publicity & Extension**

Agricultural fairs, training programmes, exhibitions, touring, encouragement and promotion of various agriculture-related schemes are intended to create awareness in agricultural activities, and thereby increase output. There has been a proposal of allocation of Rs 500 lakh for the promotion of agricultural practices through awareness programmes, fairs, exhibitions, tours, technology etc. for 2017-18.

- **Grants - in - aid**

Under the aegis of Department of Agriculture, different agriculture corporations, agencies and missions are functional - ATMA, SAMETI, JSADC Ltd., Seed Certification Agency, JAMTTC, JASMIN, OFAJ are such institutions. Allocation of Rs. 1900 lakhs has been proposed.

- **Special Crop Scheme:**

Jharkhand's geographic and climatic features provide a suitable condition for thick crops. Therefore, the scheme promotes the cultivation of thick crops like *ragi*, *gudgi*, *jowar*, *madua* and other pulses.

There will be a special programme to increase the cultivation of sugarcane in the state. An allocation of Rs 2200 lakh has been proposed for the scheme for 2017-18.

- **Single Window and mobile based e-Solution**

The farmers will be provided knowledge of efficient and modern methods of agriculture, assistance, suggestions, information, and solutions through Single Window Centres at designated areas. It has been proposed to extend the number of these centres. Further, a provision of e-solution through mobiles has been also proposed to extend the advisory role of Single Window Centres. An allocation of Rs 2500 lakh has been proposed for 2017-18.

- **Conversion of Fallow Land to Cropped Area**

The government seeks to increase agricultural output by converting fallow and barren land to cultivable land for thick and other crops. The agriculture scientists will provide knowledge about ploughing and use of seeds, fertilizer and pesticides in such land. Further, farmers will be provided with special seeds, fertilizers and encouragement amount. The plan is to be implemented in two lakh hectare area of all 24 districts. For the purpose, an allocation of Rs 1000 lakh has been proposed in 2017-18.

- **Double Cropping Rice Fallow Scheme**

Rice is the primary crop in Jharkhand. After the harvesting of rice, the fields are vacant post-harvest season. Thus, the government is encouraging the farmers to grow other crops in the off- season. The secondary crops can be *dalhan*, *tilhan* and thick crops: *ragi*, *gundli*, *madua* etc. Secondary crops will be cultivated in one lakh hectare area. Cluster farming will be practiced in 50 hectares. The farmers will be provided with fully subsidized Zero Seed Drill Machine to ensure the success of the scheme. Further, they will be provided encouragement amounts, expert's advice, and awareness through

NGOs. An allocation of Rs 3200 lakh has been proposed for the scheme for 2017-18.

- **Quality Control Laboratory**

The quality control laboratories provide necessary information and knowledge about the seeds, diseases, maintaining and enhancing the crops, and ways of increasing the productivity. An allocation of Rs 300 lakh has been proposed for 2017-18 to strengthen these institutions. An allocation of Rs 2400 lakh has been proposed for the plan for 2017-18.

- **Ponds Reconstruction Scheme**

The Water Resource Department and Rural Development Department has initiated the scheme to reconstruct ponds for the irrigation purpose of farmers. Government ponds of 5 acres are to be rebuilt through machines by the Agriculture Department. The ponds which are bigger than 5 acres are to be rebuilt by the Water Resource Department. About 2000 ponds have been planned to be rebuilt. An allocation of Rs 3000 lakh has been proposed for the plan for 2017-18.

- **Distribution of Pump sets**

The scheme aims to increase the options of irrigation among small and marginal farmers having covered with irrigation wells under MGNREGA, by the distribution of pump sets among them. The scheme is carried out through self-help groups and Farmers' Clubs. The farmers will be provided with 200 feet pipes for the irrigation purpose. About 20,000 pump sets have been distributed through the scheme. An allocation of Rs 5000 lakh has been proposed for the plan for 2017-18.

- **Agriculture Departmental Infrastructure and Rural Haat**

A needs-based construction of Agriculture Departmental Infrastructure has been proposed in 2017-18. This

will include providing a market/Haat to the farmers' output and facilitating the market for the farmers.

- **Mechanisation of agriculture**

The scheme targeted towards increasing mechanization in agriculture is especially aimed towards increasing women's role in the same. To integrate women into agriculture, the women self-help groups are established as the bank of agricultural tools and implements. In the year 2017-18, 3500 women SHGs were provided with small but effective agricultural tools. An allocation of Rs 7000 lakh has been proposed for the plan for 2017-18.

- **Jalnidhi Scheme**

The scheme was initiated in 2015-16 to provide the farmers with different sources of irrigation to reduce their dependency on rainfall. For this purpose, deep boring, percolation tank micro-lift irrigation has been constructed. An allocation of Rs 1000 lakh has been proposed for the plan for 2017-18.

- **Distribution of Agricultural tools and irrigation pumps**

The scheme intends to distribute irrigation pumps and agricultural tools which are operated through solar energy. Solar energy would reduce the functioning and maintenance costs of tools and pumps. An allocation of Rs 3000 lakh has been proposed for the plan for 2017-18.

- **Organic Farming**

There has been a proposal of promotion of organic farming. For this, there has been an establishment of Organic Farming Authority. It has been initiated in 2017. This is a three years programme which will continue till 2019-20. An allocation of Rs 6500 lakh has been proposed for the plan for 2017-18.

- **Grants-in-aid to Birsa Agriculture University**

The state government provides grants-in-aid for various activities of the Birsa Agriculture University. This is responsible for creating new courses, providing salaries to the teaching and non-teaching staff in the university, and promoting agricultural knowledge. There are 24 agriculture science centres in the state. There has been a proposal to establish agricultural universities in the Sathal Pargana districts to increase agricultural awareness and its scientific knowledge. An allocation of Rs 9000 lakh has been proposed for the plan for 2017-18.

- **Interest Subvention:**

Agriculture requires credit during certain seasons like cultivation and harvesting. The small and marginal farmers face financial scarcity during this time and they take short term loan under KCC. To incentivise prompt repayment additional interest subvention of

3 per cent to farmers is provided under the scheme. An allocation of Rs 4000 lakh has been proposed for the plan for 2017-18.

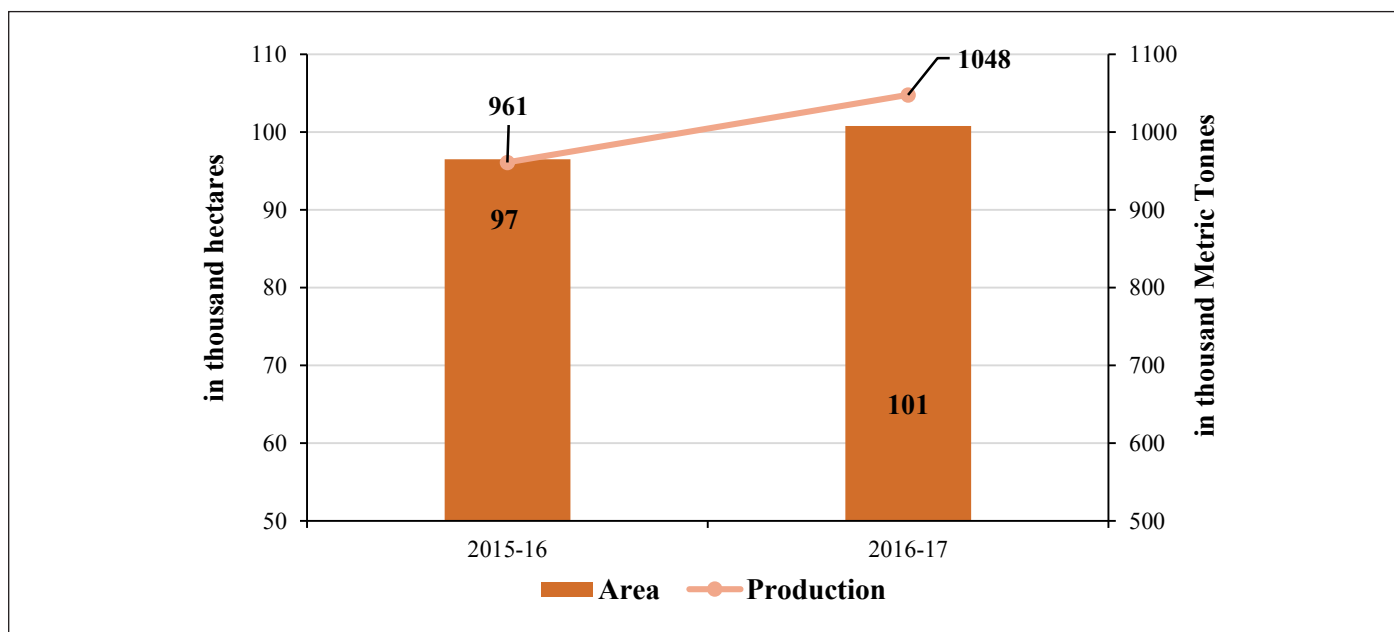
Horticulture

Area and Production of Different Varieties of Fruits

According to the final estimates⁵, the area under different varieties of fruit crops in Jharkhand has increased from 97 thousand hectares in 2015-16 to 101 thousand hectares in 2016-17. During this period, an increase of 4.4 per cent has been noticed. In terms of production, the different varieties of fruit crops have also witnessed increase. In 2015-16, production increased from 961 thousand metric tonnes to 1048 thousand metric tonnes in 2016-17. During this period, the production of different varieties of fruit crops in Jharkhand has seen a 9 per cent increase.

Figure 6.5: Area and production of total fruit crops in Jharkhand

(Area in 000 ha and production in 000 metric tonnes)



Source: Horticulture Area Production Info System (HAPIS), Ministry of Agriculture and Farmers Welfare, Government of India

Table 6.9: Area and production of different varieties of fruit crops in Jharkhand

(Area in 000 ha and production in 000 metric tonnes)

| Fruits | Area (000 Ha.) | | Production (000 metric tons) | |
|------------------|----------------|---------------|------------------------------|----------------|
| | 2015-16 | 2016-17 | 2015-16 | 2016-17 |
| Bael | 0.52 | 0.53 | 35.59 | 36.22 |
| Aonla/Gooseberry | 0.28 | 0.29 | 1.31 | 1.41 |
| Guava | 8.10 | 8.17 | 80.05 | 88.84 |
| Banana | 12.53 | 9.06 | 33.28 | 31.63 |
| Ber | 0.48 | 0.64 | 2.83 | 10.41 |
| Jackfruit | 12.33 | 14.74 | 117.46 | 124.77 |
| Litchi | 3.45 | 7.01 | 40.01 | 47.80 |
| Mango | 50.41 | 50.56 | 393.67 | 438.54 |
| Papaya | 1.78 | 2.53 | 106.69 | 109.88 |
| Pomegranate | 0.01 | 0.01 | 0.04 | 0.01 |
| Other Fruit | 1.80 | 1.70 | 102.54 | 104.50 |
| Limes and Lemons | 4.84 | 5.55 | 47.74 | 53.96 |
| Total | 96.53 | 100.79 | 961.21 | 1047.97 |

Source: Horticulture Area Production Info System (HAPIS), Ministry of Agriculture and Farmers Welfare, Government of India (data is based on the Final Estimates)

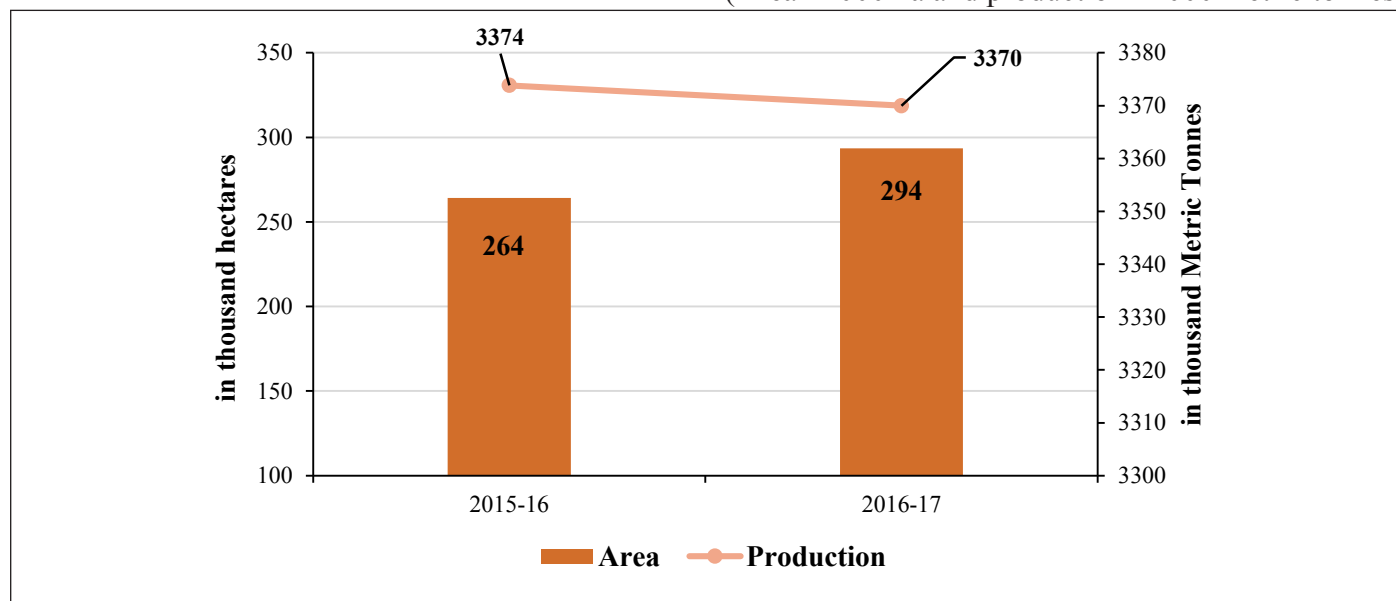
In terms of production of different varieties of fruits in Jharkhand during 2015-16 to 2016-17, *ber* has observed the maximum percentage increase in the respective period, which is followed by *litchi*, limes-lemons, mango, guava and amla/gooseberry. A decline in production has been observed in the fruit crops of pomegranate and banana. The percentage change in area under different fruit crops for the period of 2015-16 to 2016-17 reveal that *litchi* has the highest percentage increase, which has been followed by other fruits such as papaya, *ber*, jackfruit, limes and lemon (Table 6.9). Whereas, banana fruits have observed a decline in the area during the respective period.

Area and production of different varieties of vegetables

According to the final estimates, the area under overall vegetables in Jharkhand has increased from 264 thousand hectares in 2015-16 to 294 thousand hectares in 2016-17. The increase of 11.1 per cent has been noticed in this period. In terms of production of total vegetables, production has declined slightly from 3374 thousand metric tonnes to 3370 thousand metric tonnes in 2015-16 to 2016-17. During this period, the production of total vegetables of Jharkhand has observed minor decline of 0.1 per cent.

Figure 6.6: Area and production of total vegetables in Jharkhand

(Area in 000 ha and production in 000 metric tonnes)



Source: Horticulture Area Production Info System (HAPIS), Ministry of Agriculture and Farmers Welfare, Government of India

Table 6.10: Area and production of different varieties of vegetables in Jharkhand

(Area in 000 ha and production in 000 metric tonnes)

| Vegetables | Area (000 ha.) | | Production (000 metric tons) | |
|--------------------|----------------|---------------|------------------------------|----------------|
| | 2015-16 | 2016-17 | 2015-16 | 2016-17 |
| Beans | 10.38 | 12.62 | 154.55 | 226.72 |
| Bitter Gourd | 1.42 | 1.60 | 12.31 | 13.20 |
| Bottle Gourd | 1.63 | 1.55 | 13.96 | 13.34 |
| Brinjal | 22.96 | 80.05 | 219.65 | 241.00 |
| Cabbage | 30.50 | 19.32 | 475.99 | 322.46 |
| Capsicum | 18.63 | 2.95 | 17.35 | 32.55 |
| Carrot | 0.65 | 1.06 | 6.97 | 11.65 |
| Cauliflower | 20.70 | 21.19 | 258.64 | 292.17 |
| Green Chilly | 11.99 | 14.79 | 144.84 | 180.65 |
| Cucumber | 0.37 | 1.68 | 25.70 | 18.55 |
| Kaddu/Pumpkin | 0.27 | 0.77 | 3.60 | 18.56 |
| Okra/Ladies Finger | 32.87 | 4.84 | 452.12 | 101.47 |
| Onion | 14.86 | 17.48 | 254.63 | 292.59 |
| Peas (Green) | 13.85 | 15.19 | 192.21 | 341.88 |
| Potato | 44.93 | 52.73 | 627.01 | 668.66 |
| Radish | 1.05 | 2.81 | 11.73 | 39.85 |
| Tomato | 18.16 | 19.75 | 230.19 | 231.46 |
| Other Vegetables | 19.00 | 23.15 | 272.36 | 323.26 |
| Total | 264.22 | 293.53 | 3373.81 | 3370.02 |

Source: Horticulture Area Production Info System (HAPIS), Ministry of Agriculture and Farmers Welfare, Government of India (data is based on the Final Estimates)

In terms of production of different varieties of vegetables in Jharkhand during 2015-16 to 2016-17, *kaddu*/pumpkin has observed maximum percentage increase in the respective period, which is followed by radish, capsicum, carrot, peas (green), and beans. A decline in production has been observed in cabbage, cucumber, okra/ladies finger and bottle gourd. The percentage change in the area under different vegetables for the period of 2015-16 to 2016-17 reveal that cucumber has the highest percentage of increase, which is followed by other vegetables such as brinjal, *kaddu*/pumpkin, radish and carrot (Table 6.10). Whereas, capsicum, cabbage, and okra/ladies finger have observed a decline in the area during this period.

Flagship schemes of Horticulture

- **Udhyaan Development Scheme**

The scheme is aimed towards establishing and extending nurseries in the state. This will have nutritious fruits, plants, and vegetables. It will further develop the nutrition level of fruits and vegetables, a variety of flowers, cultivation of banana, and house gardening. An allocation of Rs 5000 lakh has been proposed for the plan for 2017-18.

- **Extension of NHM in non-NHM districts**

The scheme aims towards increasing NHM activities in 07 districts which are not covered under NHM.

The mission aims to extend activities in areas which had not been covered before: Dhanbad, Koderma, Bokaro, Jamtara, Godda, Deoghar, and Purbi Singhbhum. An allocation of Rs 2100 lakh has been proposed for the plan for 2017-18.

Animal Husbandry and Dairy Development

Animals of Jharkhand usually have low productivity due to inadequate nutrition, low-level animal management, tropical heat, and diseases. The aim of the Animal Husbandry Division is to develop it as a source of beneficial employment by improving the productivity of animals by proper development of the animal husbandry sector. This division is liable for affairs associating with livestock production, preservation, and protection from disease and improvement of stocks and dairy development. It also looks after all matters pertaining to fishing and fisheries, inland and marine. The objective of this department is to increase livestock production such as milk, egg & meat; enhance the draught capacity of bullocks by intensive implementation of controlled breeding programmes; consolidate and strengthen existing infrastructure facilities for livestock development in the state; promote animal husbandry as a viable subsidiary source of income for the rural population by providing improved facilities of crossbreeding; creation of awareness amongst livestock and poultry keepers; training of staff dealing with extension etc.

Table 6.11: Summary of a proposed budget provision in the year 2017-18 (in lakhs Rs.)

| Division | Proposed Budget Provision | | | |
|-------------------|---------------------------|---------------|--------------|-----------|
| | Establishment Expenditure | Plan of State | Central Plan | Total |
| Agriculture | 18158.68 | 130560 | 31440 | 180158.68 |
| Animal Husbandry | 11317.83 | 23127 | 3320 | 37764.83 |
| Dairy development | 1270.7 | 28628.1 | 2601.2 | 32500 |
| Fisherman | 1222.76 | 10343 | 1928 | 13493.76 |
| Cooperative | 5583 | 34133 | | 39716.4 |
| Total | 37552.97 | 226791.1 | 39289.2 | 303633.67 |

Source: Annual work plan, 2017-18, Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

Table 6.12: Status of Jharkhand Physical Infrastructure of Animal Husbandry Resources

| | | |
|---|-----------------|-----|
| Number of veterinarians | Sanctioned Post | 773 |
| | Working | 579 |
| Number of livestock assistants | Sanctioned Post | 577 |
| | Working | 133 |
| Number of technical assistants | Sanctioned Post | 400 |
| | Working | 147 |
| Number of first class veterinary clinics | | 424 |
| Number of moving veterinary clinics | | 4 |
| Number of Provincial Veterinary Hospitals | | 23 |
| Number of state animal farms | | 3 |
| Number of state poultry farms | | 2 |
| Number of state Pig farms | | 6 |
| Number of state goat farms | | 1 |
| Number of operated artificial insemination centers (JSIA) | | 430 |
| Number of Organic Production Units | | 1 |
| Number of diagnostic units | | 5 |
| No. of State Level Animal Husbandry Training Centres | | 2 |
| Number of semen banks | | 1 |
| No. of Pet Clinic Investigation Centres | | 8 |
| Number of bacon factory (closed unit) | | 1 |

Source: Annual work plan, 2017-18, Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

Further, 100 veterinarians have been appointed for the first time since the formation of the state in 2000. The Agriculture, Animal Husbandry, and Cooperation Department have proposed to allocate Rs. 180158.68 lakh to agriculture, Rs 37764.83 to animal husbandry, Rs 32500 lakh to cattle-related areas, Rs 13493.76 lakh to the fishery and Rs 29716.40 lakh to Cooperation for the financial year of 2017-18. Thus, a proposal of the total allocation of Rs 303633.67 lakh has been made. As per the annual work plan, 2017-18, Department of Animal Husbandry & Fisheries, on an average the Jharkhand Milk Federation procured 70 thousand liters of milk per day through 437 milk pooling points (M.P.P) by 14114 milk producers of 1212 villages of 14 districts in the state. The milk producers are being paid an average of Rs 6 crores per month, through their personal bank accounts, under the cashless payment

system. The milk production in Jharkhand has witnessed 14 per cent increase from 2014 to 2017.

The milk production in 2014 was 47.50 lakh liters per day which have increased to 53.97 lakh liters per day (Figure 6.7). The Jharkhand Milk Foundation aims to produce milk and distribute it widely. It works for the development of better machines for the greater milk output. It also works for the provision of the market by linking the producers to the larger market and facilitating the transactions. The government has allotted Rs 203.76crore for 5 years to the Jharkhand Milk Foundation to implement the programmes for the increment in milk production in the state. The construction of the Medha Dairy Plant in Hotwar, Ranchi has been initiated. The Rs 31.08crore worth plant will have a capacity of 1 lakh litres and will be laden with modern technology.

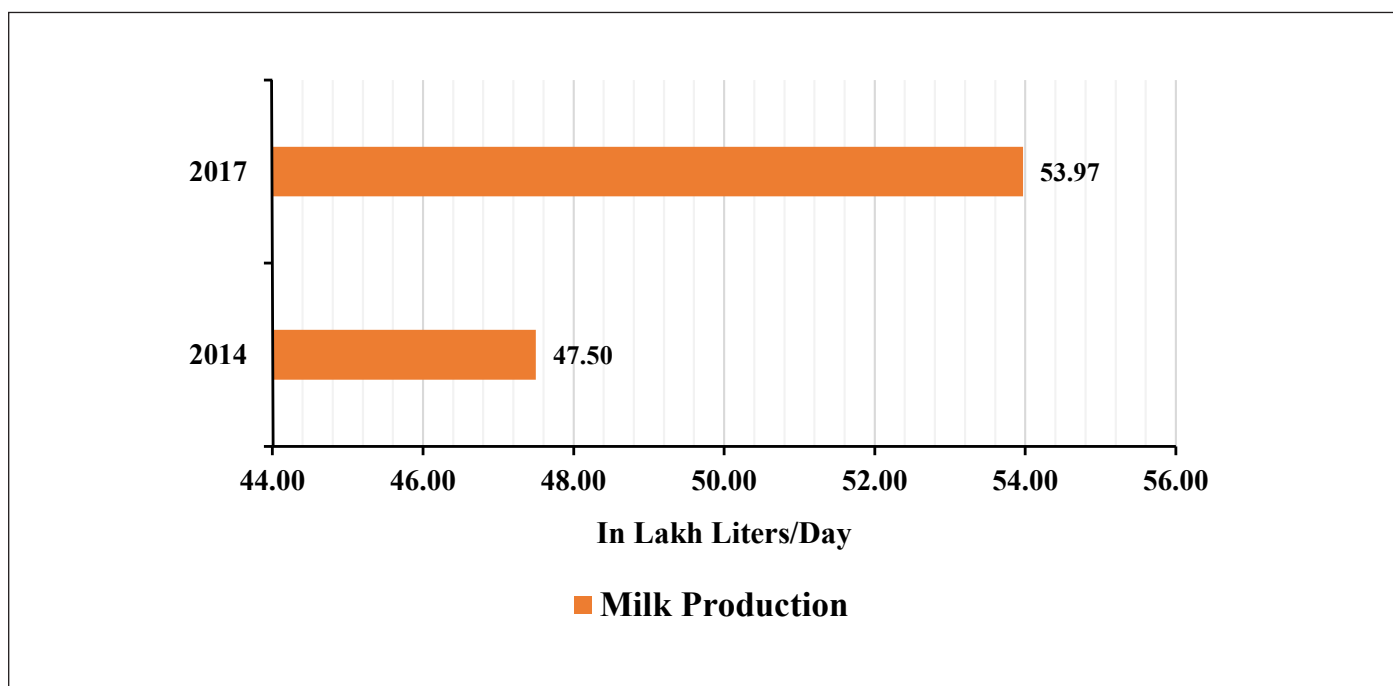
Table 6.13: Establishment of Dairy and Milk Cold Centre

| Dairy/Name of Milk Cold Centre | Handing Capacity |
|--------------------------------|------------------|
| Medha Dairy, Hotwar, Ranchi | 100000 |
| Lohardaga Dairy, Lohardaga | 10000 |
| Milk Cold Centre, Latehar | 10000 |
| Giridih Dairy, Giridih | 5000 |
| Deoghar Dairy, Deoghar | 10000 |
| Dhanbad Dairy, Dhanbad | 5000 |
| Koderma Dairy, Koderma | 10000 |

Source: Annual work plan, 2017-18, Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

Figure 6.7: Status of milk production in Jharkhand

(Production in lakh litres/day)



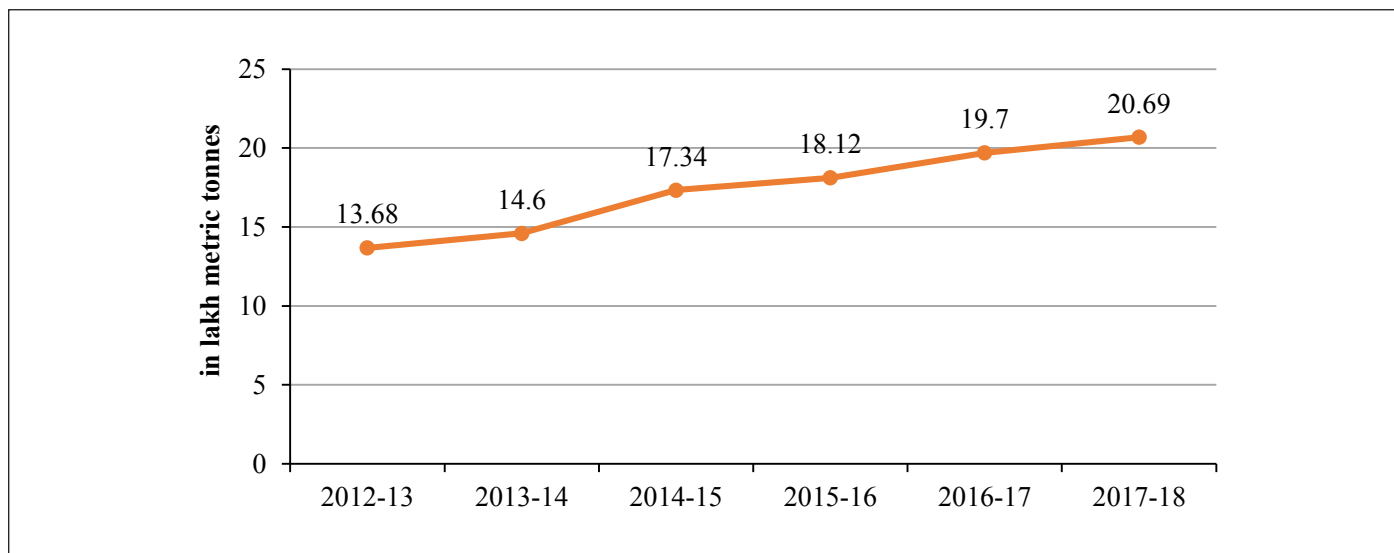
Source: Department of Animal Husbandry and Fisheries, Govt. of Jharkhand

The government has proposed to increase milk production to fill the gap and increase self-sustenance. It has proposed to increase cattle by providing the facility of artificial fertilization of dairy cattle at the *panchayat* level. For this, the 1440 existing centers are to be increased to 2500 centers. The government wants to provide special assistance to women. About 50,000 B.P.L. rural women are

provided financial assistance and training. This is achieved by providing them with two cows at 90 per cent subsidy. Further, they are linked with self-help groups to engage them in economic activities to make them financially independent. The rural women are linked with the members of *Sakhi Mandali* for milk production programmes, which increases dairy production, income, and female employment.

Figure 6.8: Progress in milk production during 12th Five Year Plan and targets for 2017-18

(Production in lakh metric tonnes)



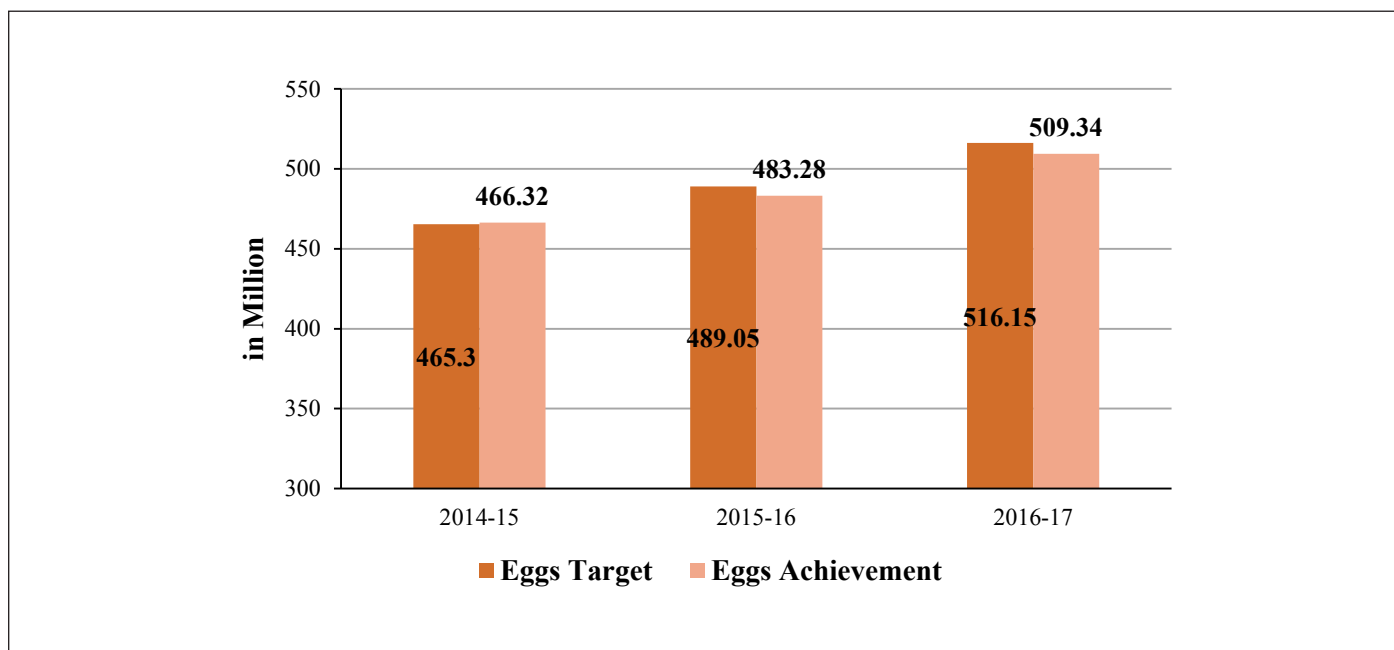
Source: Annual work plan, 2017-18, Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

The production of meat and egg in the state has observed an increase during the period 2014-15 and 2016-17. During this period, the production of meat in Jharkhand increased from 47.86 thousand MT to 55.01 thousand MT, which has witnessed 15 per cent

increase (Figure 6.7). From 2014-15 to 2016-17, the production of the egg has increased from 466.32 million to 509.34 million. The production of eggs has observed 9.22 per cent increase in this period (Figure 6.9).

Figure 6.9: Target and achievement in egg production, 2014-15 to 2016-17

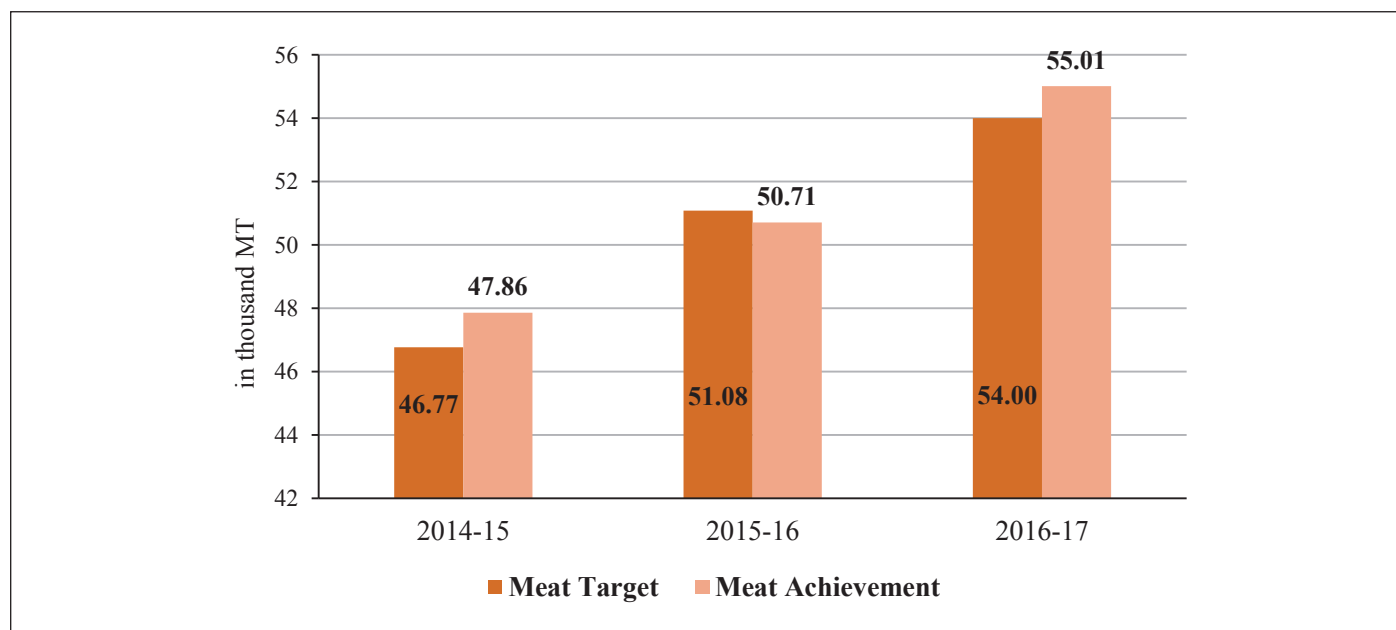
(Production in millions)



Source: Annual work plan, 2017-18, Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

Figure 6.10: Target and achievement in meat production, 2014-15 to 2016-17

(production in thousand MT)



Source: Annual work plan, 2017-18, Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

Flagships schemes of Animal Husbandry and Dairy Development

• Animal Husbandry Encouragement Amount

The scheme aims to increase animal husbandry as a prosperous source of livelihood among people. It does so by awarding persons involved in animal husbandry. Further, it organizes programmes to create awareness about the occupation, and educate persons about better methods of increasing productivity and maintenance of cattle. An allocation of Rs 50lakh has been proposed for 2017-18.

• Pig/goat rearing

The scheme plans to increase rearing of cattle such as goat and pig. It also plans to integrate cattle rearing into agriculture-related activities, especially to provide manure for organic farming. An allocation of Rs 100lakh has been proposed for 2017-18.

• Layered-bird Distribution

To increase the egg production in the state, there is the distribution of about selected breeds of birds. About 400 layered birds have been distributed as per as the Scheme. It has been proposed to provide 70 per cent subsidy in the provision of these birds. An allocation of Rs 4561 lakh has been proposed for 2017-18.

• Development of Cattle Fodder Plant

The government has planned to establish plants to provide fodder for the livestock of the state. The plants will be established in Ranchi, Saraikela, Bokaro, and Hazaribagh. An allocation of Rs 100 lakh has been proposed for 2017-18.

• Assistance to States for Control of Animal Diseases

This is a central scheme, which aims to train the cattle rarer about the health, diet, diseases, and maintenance of the livestock. An allocation of Rs 20 lakh has been proposed for 2017-18.

- **Frozen Semen Bull Station**

The FSBS is established under the National Agriculture Development Scheme. The scheme provides for the development of stations where the bull’s semen can be frozen and stored. This is used for the purpose of research and future utilization. An allocation of Rs 300lakh has been proposed for 2017-18.

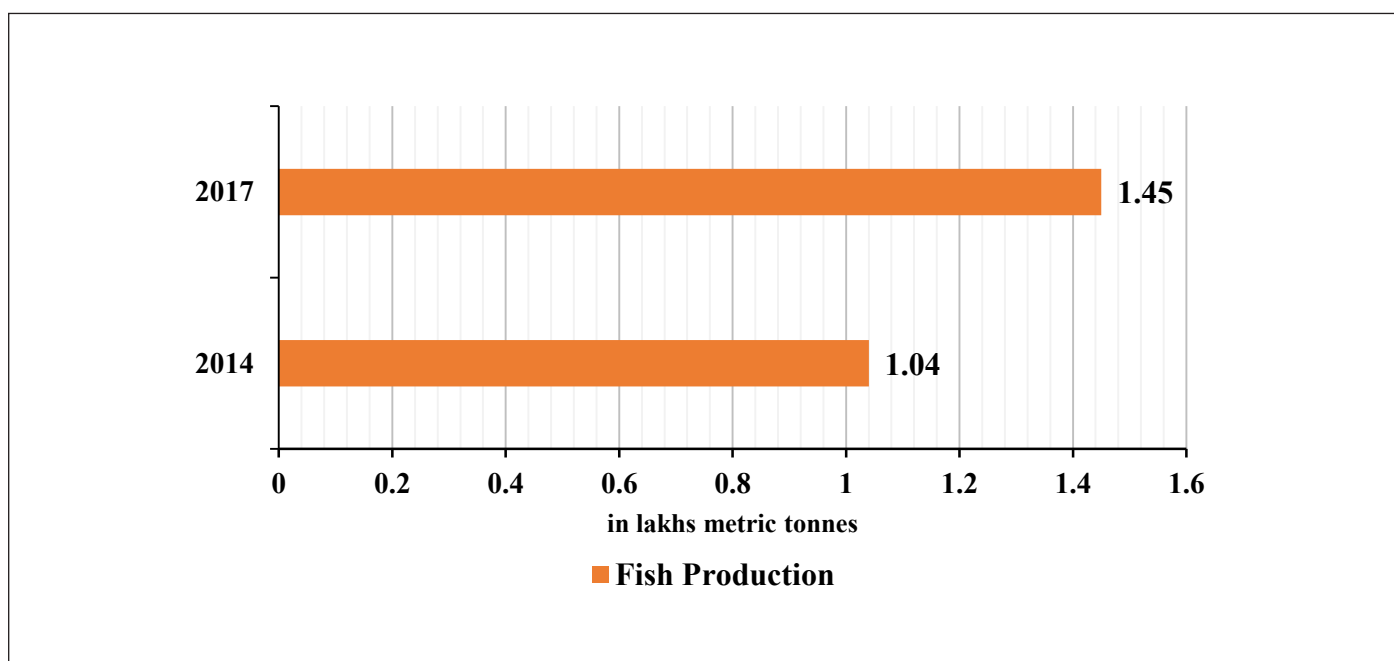
FISHERY

The fishery is another animal-based activity which can be utilized to increase income, employment, production and overall ecological well-being. The promotion of fishery among the rural population has led to the annual production of 1.16 lakh tonne of fish. The government aims to increase the fishery through cage culture and R.F.F. It wants to promote it via distributing local feeds among the fishermen. The

fishery is promoted among the youth by providing encouragement amounts. Further, fishermen are provided with output insurance and residence. Further, it is promoted through the *panchayat* among the youth as a prime source of livelihood. Fish production, producer and fish seeds in Jharkhand have observed an increase during 2014-15 and 2016-17. During this period, fish production in Jharkhand has increased from 1.04 lakh metric tonnes to 1.45 lakh metric tonnes, which has witnessed a 39 per cent increase (Figure 6.10). From 2014-15 to 2016-17, the fish producer has increased from 0.86 lakhs to 1.28 lakhs. The fish producer during this period has witnessed a 48 per cent increase in the respective period (Figure 6.12). The fish seeds production in 2014 was 108 crores, which has increased to 415 crores in 2017. During this period, more than 200 per cent increase has been observed (Figure 6.13).

Figure 6.11: Achievements in Fish Production, 2014 to 2017

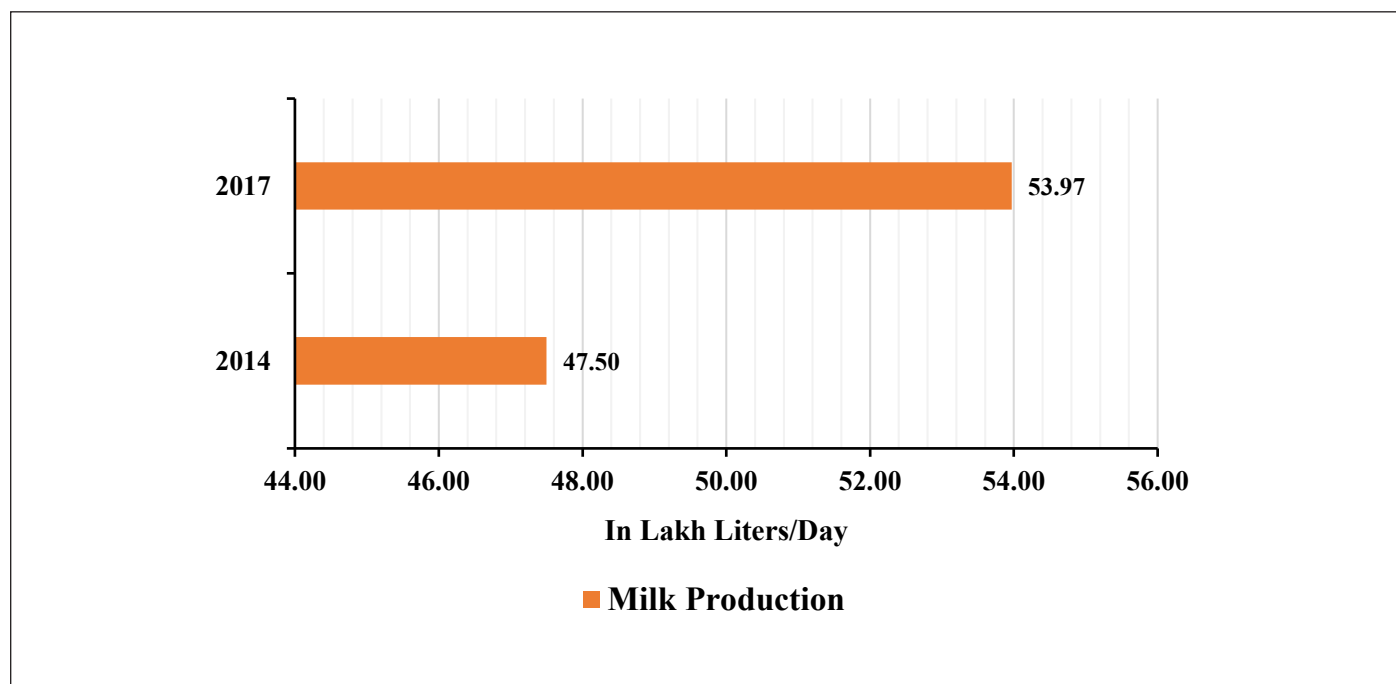
(production in lakh metric tonnes)



Source: Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

Figure 6.12: Fish Producers in Jharkhand, 2014 to 2017

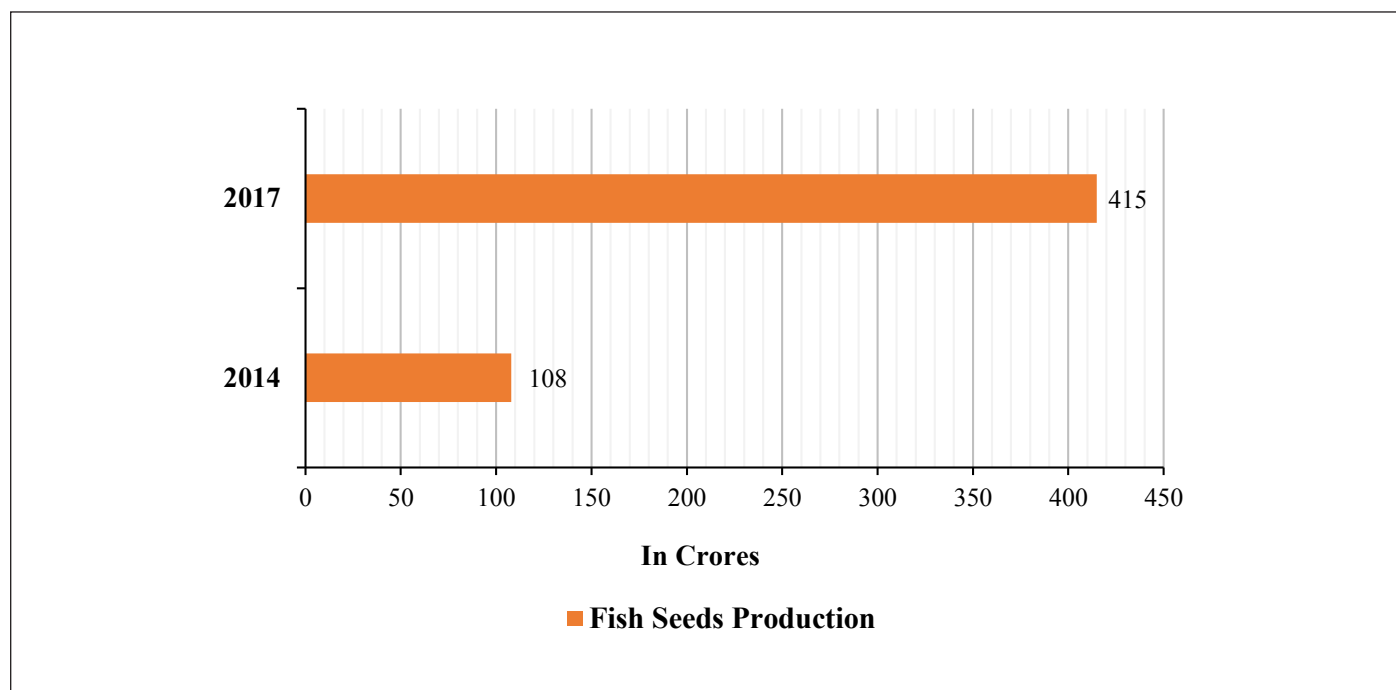
(in lakhs)



Source: Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

Figure 6.13: Achievements in Fish Seeds Production, 2014-15 to 2016-17

(production in crores)



Source: Department of Animal Husbandry and Fisheries, Govt. of Jharkhand

Table 6.14: Summary of estimated area and number of beneficiaries through different schemes

| Category | Number | Area covered (hectare) |
|----------------------------------|--------|------------------------|
| Private Pond | 116305 | 50586 |
| Government Pond | 16719 | 15762 |
| Check Dam | 1184 | 4570 |
| Coal Peats and Mines | 1741 | 9880 |
| River | | 1800km |
| MNREGA irrigation coup | 126000 | |
| Dobha | 150000 | |
| Clean Fish Friends | 5003 | |
| Fish Production through cage | | 3-4tonne per cage |
| <i>Pakka</i> Fisherman Residence | 12300 | |
| Insurance | 34 | |

Source: Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

Flagships schemes for Fishery

- **Development and reconstruction of ponds for fishery**

The scheme intends to increase fish seeds in the state. The plan is to identify and train 4775 seed producers and distribute 425 crore fishery seeds among the fishermen. So far 5003 seed producers have been registered and trained, while 415 crore fish seeds have been produced and distributed. An allocation of Rs 1825 lakh has been proposed, and Rs 1130 lakh allocated in 2016-17. It aimed at providing 450 crore fish seeds in 2017-18. An allocation of Rs 2230 lakh has been proposed for 2017-18.

- **Development of water bodies for fishery**

The scheme aims to increase in-situ fish production in various water bodies. About 27205 lakh spawns have to be distributed, while 21127 lakh spawns have been provided yet. It also plans to cultivate 20 lakh grass crops and 1200 lakh major crops. The government has provided 12.33 lakh grass crops and 437.14 lakh major crops. An allocation of Rs 2631.48 lakh has been proposed, and Rs 1910 lakh

allocated in 2016-17. An allocation of Rs 25 lakh has been proposed for 2017-18.

- **Fisherpersons' Training Centre**

It plans to train 10,000 fishermen with modern technology. It has provided training to 6000 fishermen. An allocation of Rs 260 lakh has been proposed, and Rs 178 lakh allocated in 2016-17. In 2017-18, the government aimed at training 17000 fisherpersons. An allocation of Rs 760 lakh has been proposed for 2017-18.

- **Feed Factory and Distribution Scheme**

The scheme aims to develop feed factories, enable technology, and promote fishing through feed-based method. The feed factories are in Koderma, Bokaro, Sarikela, Ramgarh, and Ranchi. The feed mill has initiated fishing the feed system in 5 feed factories. The interested fishermen are provided with feed. An allocation of Rs 270 lakh has been proposed, and Rs 53 lakh allocated in 2016-17. In 2017-18, 3850 tonnes of floating feed has been produced and distributed among the fisherpersons for the feed-based fishery. An allocation of Rs 650 lakh has been

proposed for 2017-18.

- **Fisherpersons' Residence Scheme**

The scheme plans to provide 417 *pakka* houses to the fisherpersons. So far, 247 *pakka* houses are constructed and provided to the fisherpersons. An allocation of Rs 500.40 lakh has been proposed, and Rs 300 lakh allocated in 2016-17. In 2017-18, the government planned to provide 3000 fisherpersons with *pakka* houses. An allocation of Rs 3600 lakh has been proposed for 2017-18.

- **Group Accident Insurance Scheme**

The scheme provides life insurance to the families of the fisherpersons in case of accidents involving groups of fisherpersons. The plan was to ensure 1260000 fisherpersons. 126000 fisherpersons have been insured so far. An allocation of Rs 15 lakh has been proposed, and Rs 12.79 lakh allocated in 2016-17. In 2017-18, the government planned to provide 128000 fisherpersons with life insurance. An allocation of Rs 16 lakh has been proposed for 2017-18.

Conclusion

The rainfall pattern in Jharkhand shows that rainfall was normal during April to October 2017. During this period, excess rainfall was received in the months of July and October, wherein, the month of May received normal rainfall and deficient rainfall was received in the months of April, June and September 2017.

The area, production, and yield of the total pulses, food grains, and oilseeds have witnessed increasing trends during 2014-15 to 2016-17. The percentage change in area under total pulses have observed 35 per cent increase along with the 41 per cent increase in production during 2014-15 to 2016-17. The percentage change in area under food grains has

increased to 19.64 per cent but the production of food grains has witnessed an increase of 17.25 per cent. The percentage change in the area under oilseeds has been marked with 34.8 per cent increase and the production along with the yield has witnessed 46.3 and 8.6 per cent increase respectively. The overall fertilizer requirement, supply and consumption in Jharkhand (based on the rabi and kharif season) from 2014-15 to 2016-17 has witnessed a 10 per cent decline in fertilizer consumption.

The area under overall fruit crops and vegetables in Jharkhand has observed an increase of 4.4 and 11.1 per cent respectively during 2015-16 to 2016-17. In terms of production, total fruit crops and vegetables witnessed 9 per cent increase and 0.1 per cent decline in 2015-16 to 2016-17. The milk production in Jharkhand has witnessed 14 per cent increase from 2014 to 2017. The meat and egg production in Jharkhand has witnessed an increase of 15 and 9.22 per cent respectively during 2014-15 to 2016-17. Fish production in Jharkhand has marked an increase of 39 per cent increase from 2014 to 2017. Similarly, the fish producer in Jharkhand during the same period has observed a 48 per cent increase.

Given the importance of the agriculture sector, Government of Jharkhand has taken various measures for its development and implemented various schemes such as Conversion of Fallow Land into Cropped Area, Double Cropping Rice Fallow Scheme, Agriculture Mechanization Promotional Scheme for women SHGs, *Jalnidhi*, Horticulture Development Scheme, Organic Certification and Organic Fertilizer Production and centrally sponsored schemes viz. National Mission for Sustainable Agriculture, National Horticulture Mission and Soil Health Card scheme etc. to enhance the contribution of the agricultural sector in the GSDP and promote the economic status of the farming community.

VII

FOOD SECURITY



The main objective of the Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand, is to ensure food security in the state. The department aims to supply food grains to the poor families of the state within a specified time period at a subsidized rate, which is a challenging task. This chapter attempts to explain the present scenario of food security and public distribution system prevailing in the state and the initiatives taken for the progress of the same.

In order to overcome the existing challenges, The Department has identified some targets. To improve it, the main indicators on which the department has focussed are:

- To computerize all operations related to the Public Distribution System (PDS) and use the technology for improving the service delivery.
- To enhance the storage capacity of the existing godowns
- To ensure welfare of the farmers, primitive tribes, the consumers, and labourers through various departmental schemes
- To monitor the Consumer Affairs activities in the State. At the district level it aims to do so through District Consumer Fora and at the State level through the Jharkhand Consumer Disputes Redressal Commission. These bodies have been constituted under the Consumer Protection Act, 1986.

Achievements of the Department during the Financial Year 2016-17

The following points highlight some of the major achievements of the Food, Public Distribution System and Consumer Affairs Department of the state during the financial year 2016-17.

- Food grains were distributed to 9.10 lakh families under the Anatyodaya Anna Yojana (AAY) and to 49.23 lakh families under Priority Households (PHH) Scheme
- Free flow Refined Iodised Salt was distributed at a subsidized rate to 58.40806 lakh BPL families. 700896.72 MT salt has been distributed among the PHH and AAY families during.
- About 58 lakh families were provided with new Ration cards. In addition, the government also constructed 53 new Godowns in the given financial period
- 1.02 lakh people identified as poor have been covered under the scheme Mukhyamantri Dal Bhaat Yojana. Under this scheme, 7241.6 MT rice, 259.4 MT gram, and 191.5 MT Soyabean badi were distributed.

National Food Security Act (NFSA) 2013

The National Food Security Act 2013, was passed with an objective to provide food and nutritional security in the human life cycle approach. It aims to create access to adequate quantity and quality of food at affordable prices to the people of the state. The Act aims to cover up to 75 per cent of the rural population and up to 50 per cent of the urban population of the country. The eligible persons are entitled to receive 5 kgs of food grains per person per month at a subsidized price of Rs. 3, Rs. 2, and Rs.1 per kg of rice, wheat, and coarse grains, respectively. The Act also includes the provision for setting up of grievances redressal mechanism at the District and State levels; and an additional provision for maintaining transparency and accountability in the system.

Targeted Public Distribution System

The Targeted Public Distribution System (TPDS) was introduced on 1st June 1997 with a motive of providing food grains at a highly subsidized rate to the targeted population. The targeted population here refers to the population identified as belonging to below poverty line (BPL) category. Under the scheme the Above Poverty Line (APL) population are also eligible to receive food grains, albeit, at prices higher than for the BPL households. Under TPDS, the Central Government is responsible for allocating 1.30 lakh tons of food grains and 22,136 kilolitres of kerosene oil per month to the state.

Jharkhand State Food and Civil Supplies Corporation

Food Corporation of India (FCI) shoulders the responsibility of procurement, storage, and distribution of food grains through its network of godowns across the country. The food grains are allocated to the state by the Central Government under the various schemes of Targeted Public Distribution System (TPDS) at the Central Issue Prices. The FCI then transports these food grains to the state from the other states of the country.

In Jharkhand, the Jharkhand State Food and Civil Supplies Corporation (JSFC) is responsible for lifting the food grains from the FCI depots present in the state. Food grains are delivered under the door-step-delivery system from JSFC godowns to the PDS/fair price shops, from where they are distributed among the beneficiaries.

The Jharkhand State Food and Civil Supplies Corporation (JSFC) was registered under the registrar of Jharkhand Company on June 18, 2010. The company is involved in trading of wholesale agricultural raw materials, food and other products. Presently, the company doesn't have its own building and a proposal for the same has been presented to the government.

FCI, National Collateral Management Service (NCML), JSFC and Nakof Jharkhand are the agencies involved in the procurement, storage and distribution of food grains by grading the quality of stocks being procured. The following table depicts the amount of grains acquired by the various food grains procuring agencies from farmers in the two-marketing season year.

Table 7.1: Amount of Paddy Received in the Two Marketing Season Year

| Marketing Season Year | Name of The Agency | Number of Farmers | Total Amount of Grains Acquired (In Tonnes) |
|-----------------------|---|-------------------|---|
| 2015-16 | Food Corporation of India | 4008 | 33453 |
| | National Collateral Management Service (N.C.M.L) | 13464 | 139673 |
| | Jharkhand State Food and Civil Supplies Corporation Limited | 36473 | 129920 |
| Total | | 53945 | 303046 |
| 2016-17 | Food Corporation of India | 6530 | 38797 |
| | National Collateral Management Service (N.C.M.L) | 17474 | 109974 |
| | Jharkhand State Food and Civil Supplies Corporation Limited | 719 | 2333 |
| | Nakof, Ranchi | 14757 | 56027 |
| Total | | 39480 | 207131 |

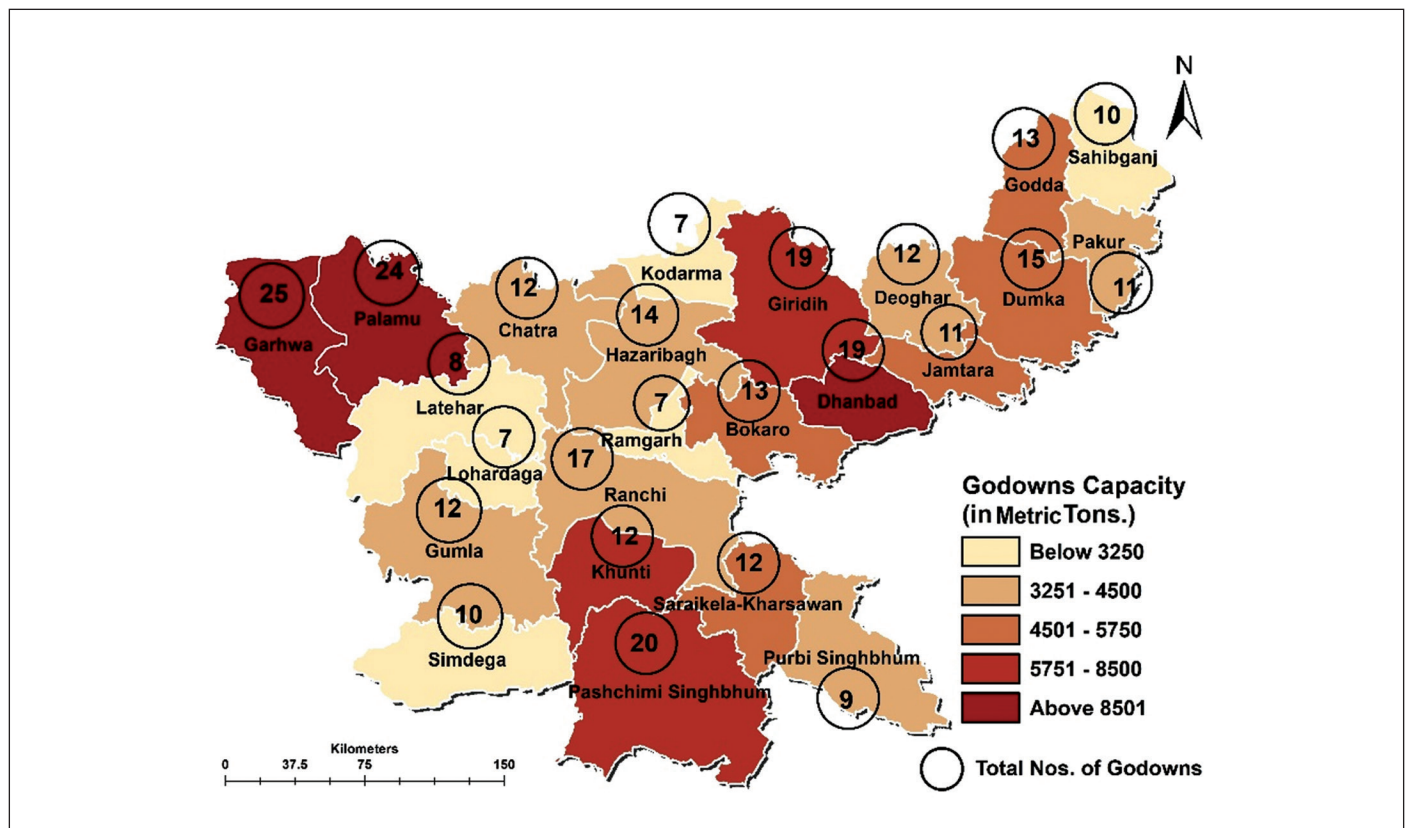
Source: Food, Public Distribution System and Consumer Affairs Department, Government of Jharkhand

Godowns/Warehouses are vital for storing food grains and other products, and making them available to people at all seasons to meet their consumption demand. So far, the department has been able to create a storage capacity of nearly 2.65 lakh MT but the State still needs an additional 60,000 MT of storage capacity. Thus, the department has proposed the construction of godowns of 2,000 MT capacity in each district. In addition, the department has also proposed the provision of other basic amenities like drinking water, resting place for the godown workers and a linking road to the godowns.

The department had planned to construct 475 storage godowns across the districts of the State during 2009-10 and 2016-17. But during this period,

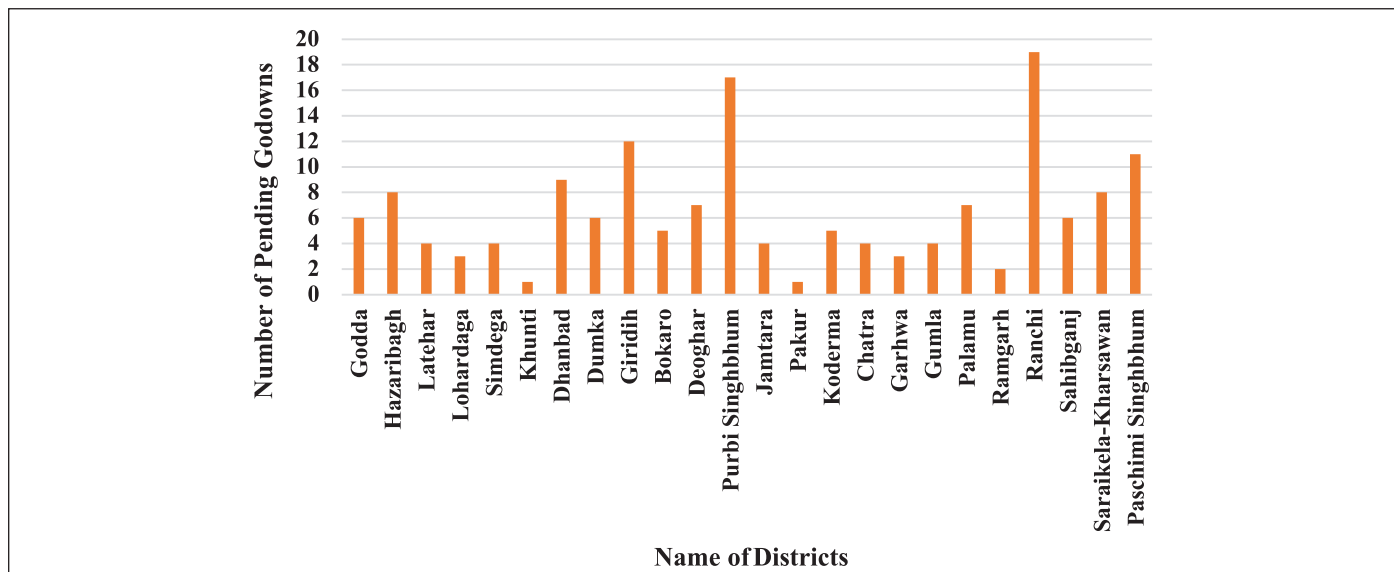
only 319 godowns have been constructed and a total of 156 godowns are yet to be constructed. The two districts -Ranchi (19) and Purbi Singhbhum (17) - have the highest number of pending godowns at 19 and 17 godowns, respectively. The following map represents the total number of Godowns along with their total storage capacity in tons. The highest number of Godowns have been constructed in Garhwa (25) followed by Palamu (24). The least number of godowns, only 7, have been constructed in Kodarma, Ramgarh and Lohardaga Districts. Garhwa and Palamu districts have the highest number of Godowns and the largest storage capacity - above 8501 MT. District like Kodarma, Latehar and Ramgarh have least storage capacity - below 3000 MT.

Map 7.1: Total Number of Godowns Constructed and their Storage Capacity (in MT) between 2009-10 and 2016-17



Source: Compiled using data from Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Figure 7.1: District-wise Total Number of Pending Godowns in Jharkhand



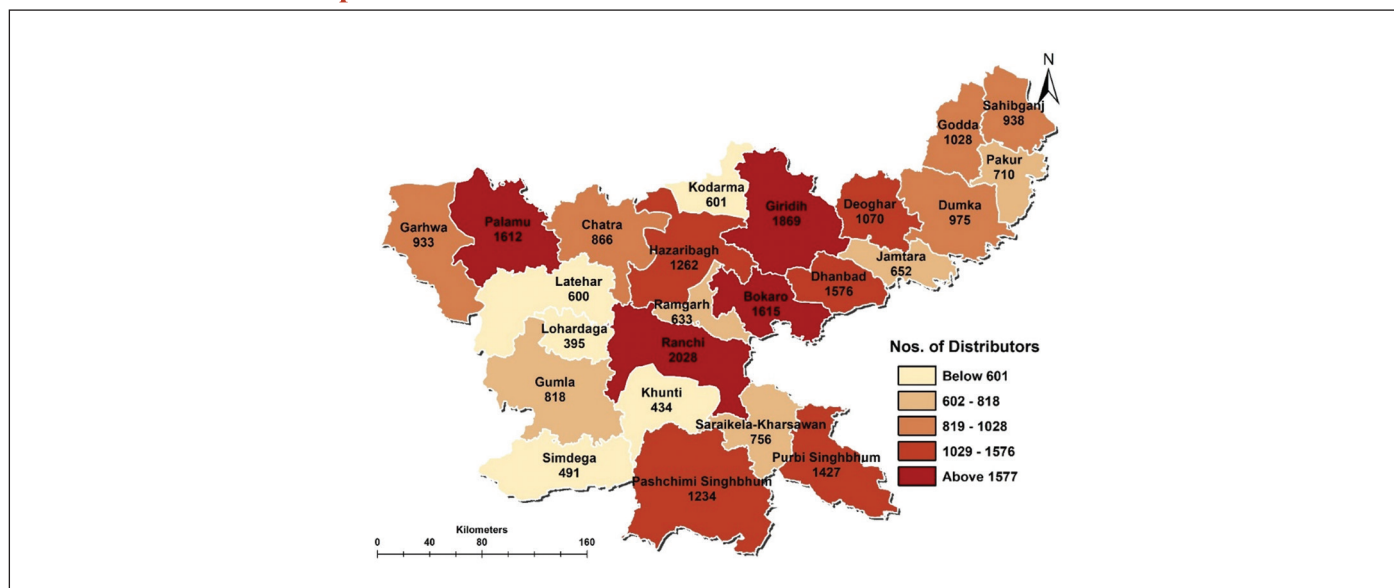
Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

District-wise Details of the Distributors

The food grains which are transacted to various parts of the districts of Jharkhand are made available to the people through the various distributors present across the districts. At present, there are a total of 24523 distributors of food grains and other products in Jharkhand. The largest number of distributors are located in Ranchi (2028), followed by Giridih (1869), Bokaro (1615) and Palamu (1612). The

least number of distributors are present in Kodarma (601), Latehar (600) and Lohardaga (395). As the highest number of distributors are present in Ranchi and Giridih districts, these districts also comprise the highest proportion of of the distributed food grains (rice and wheat), salt, sugar and kerosene oil. Likewise, since Lohardaga district has the least number of distributors so it ranks the lowest in terms of the proportion of distributed food grains (rice and wheat), salt, sugar and kerosene oil.

Map 7.2: District-wise Number of Distributors in Jharkhand



Source: Compiled using data from Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

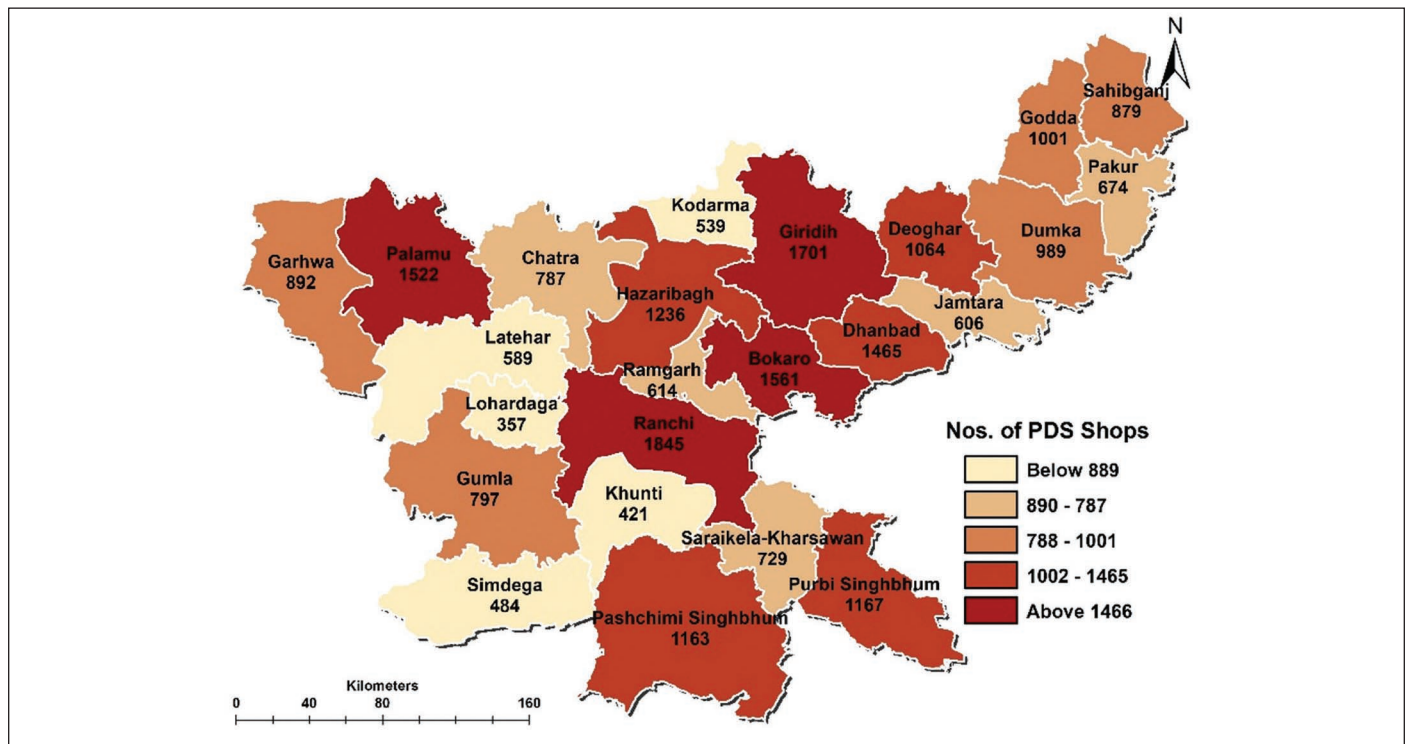
Public Distribution System (PDS)/Fair Price Shops

PDS shops or fair price shops are an important link to ensure the provision of food grains and other products at a subsidized rate to the people, especially the BPL families. The food grains from the JSFC godowns are distributed among the PDS/fair price shops located in different parts of the state. The food grains and other products are then distributed to the targeted population under the TPDS. Food grains under the AAY, PHH Scheme and Annapurna

Scheme are made available to the beneficiaries at a highly subsidized rate in the state. The state also distributes salt and sugar through these shops, and kerosene oil through both the PDS shops and *Thela* Vendors.

At present, there are a total of 23082 fair price shops in the state. Out of these, the highest number (1466) is located in Ranchi, Palamu, Giridih and Bokaro districts. Simdega (484), Khunti (421) and Lohardaga (357) districts have the least number of PDS shops in the state.

Map 7.3: District-wise Total Number of PDS Shops in Jharkhand



Source: Compiled using data from Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Aahar Jharkhand

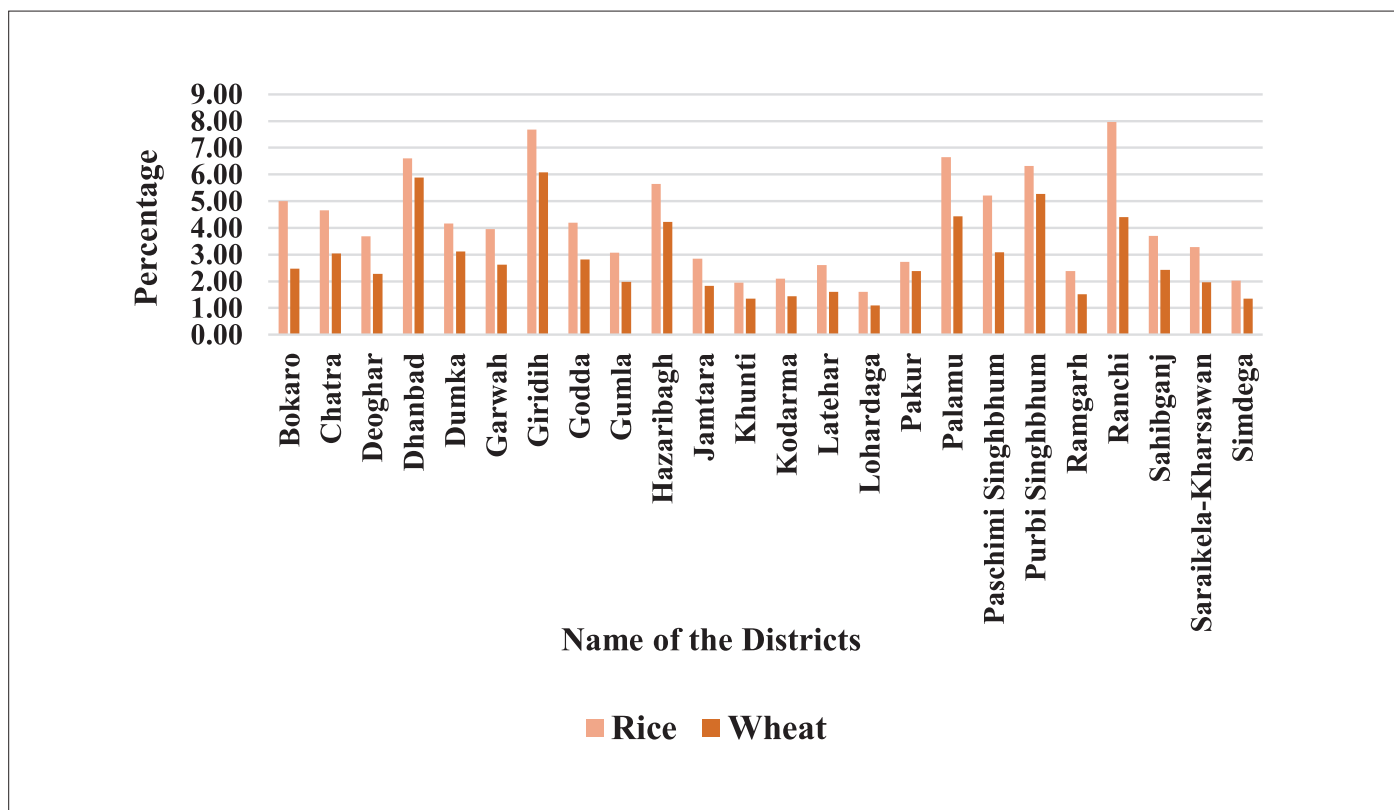
Aahar Jharkhand is an online portal of Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand. Through this portal, the department provides an updated status of the daily transaction of food grains and other products, monitors the distributors and dealers, and maintains records of the godowns/ warehouses and others.

The following figures depict an aggregate status of the transaction of food grains, salt, sugar and kerosene oil of the department between April- December 2017. As Rice is the staple diet of the people living in the state, its distribution higher than wheat across the different districts in the state. Among the districts, Ranchi (7.96 per cent) and Giridih (7.68 per cent) have the highest proportion of rice transaction relative

to the districts for the period April-December 2017. Khunti (1.94 per cent) and Lohardaga (1.61 per cent) have least proportion of rice transaction for the same time period. Similarly, districts like Giridih (6.07 per cent) and Dhanbad (5.88 per cent) accounted for the highest proportion of wheat transaction between

April-December 2017 and Khunti (1.35 per cent) and Lohardaga (1.10 per cent) for the least. Thus, Giridih is the best performing district in terms of food grain transaction while Khunti and Lohardaga are the worst performing districts.

Figure 7.2: District-wise Transaction Status of Food grains (Rice and Wheat) between April-December 2017



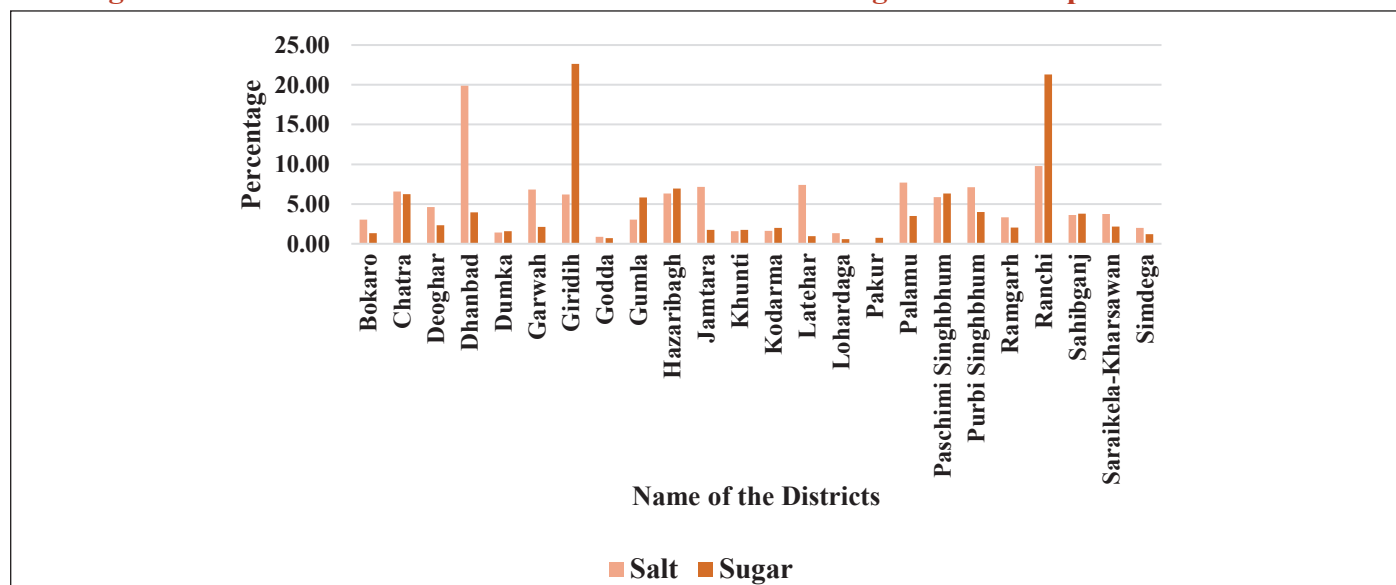
Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

The following figure, shows that Dhanbad, Giridih, and Ranchi districts account for the highest proportion of transaction of both Salt and Sugar from April-December 2017. The highest proportion of Salt has been transacted in Dhanbad (19.87 per cent) and Ranchi (9.78 per cent) districts between April-December 2017. In Pakur district only 2 kg of salt was distributed in these 9 months. Again, the highest amount of sugar has been transacted in Giridih (22.64 per cent) and Ranchi (21.29 per cent) districts while

Lohardaga (0.59 per cent) and Godda (0.71 per cent) witnessed the least proportion of transaction.

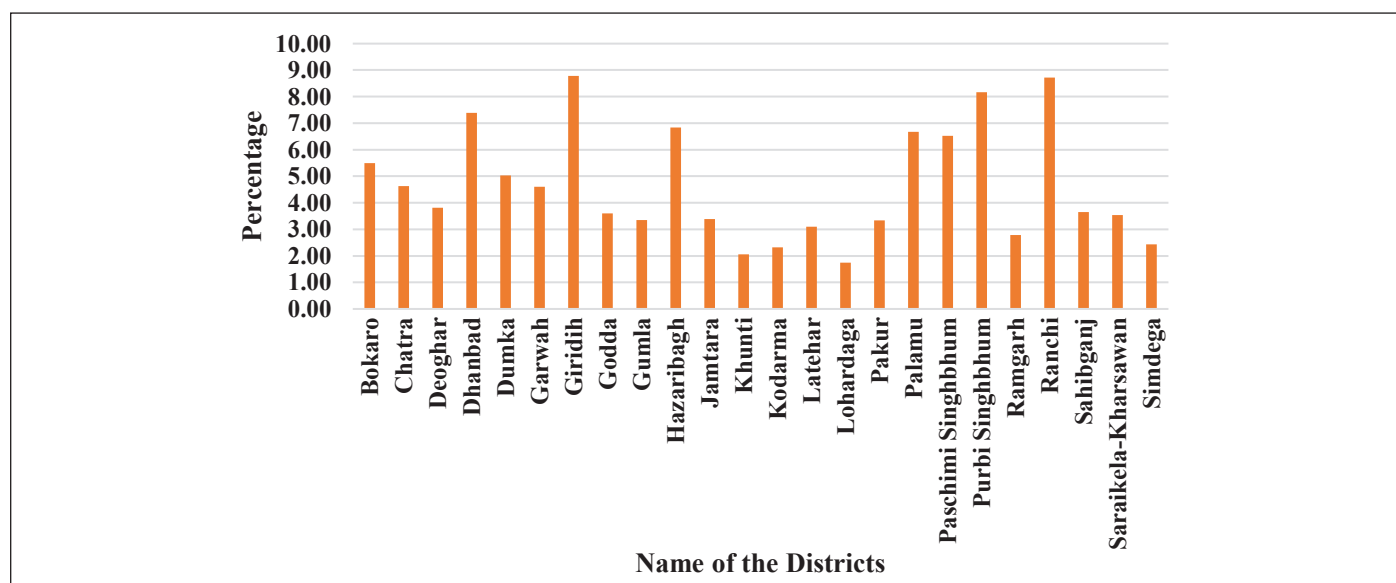
The picture similar when we consider Kerosene Oil transaction in the state. Giridih and Ranchi districts had the highest proportion of Kerosene Oil transactions between April-December 2017. Khunti and Lohardaga districts have met the least proportion of transaction of Kerosene Oil within the same time period.

Figure 7.3: District-wise Transaction Status of Salt and Sugar between April-December 2017



Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Figure 7.4: District-wise Transaction Status of Kerosene Oil between April-December 2017



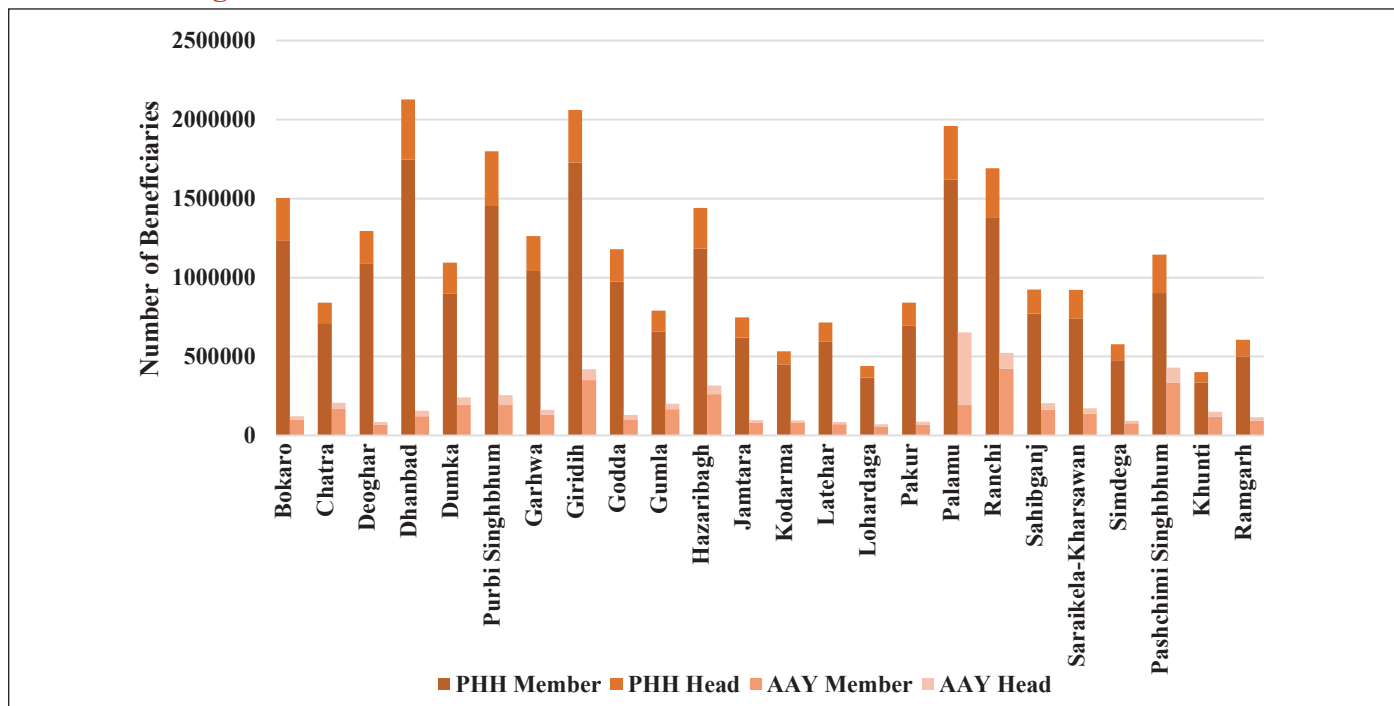
Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Ration Card Digitisation Status

To improve the system of distribution of food grains and other products, ration cards have been classified into three different colours, where each colour represents the three economic categories (PHH, AAY and APL). Pink ration cards are marked for the priority household (PHH) beneficiaries, yellow for the Anatyodaya Anna Yojana (AAY) beneficiaries and white cards for above poverty

line household (APL) beneficiaries. Further, to maintain transparency and to improve the PDS, the ration cards have been linked with Adhaar card of the beneficiaries. The whole system has thus been digitized, such that, the beneficiaries are automatically updated on the official website of the department. The following figure depicts the status of distribution of ration cards among the Priority Household (PHH) and Anatyodaya Anna Yojana (AAY) heads and members respectively.

Figure 7.5: District-wise Distribution Status of Ration cards as on 18.12.2017

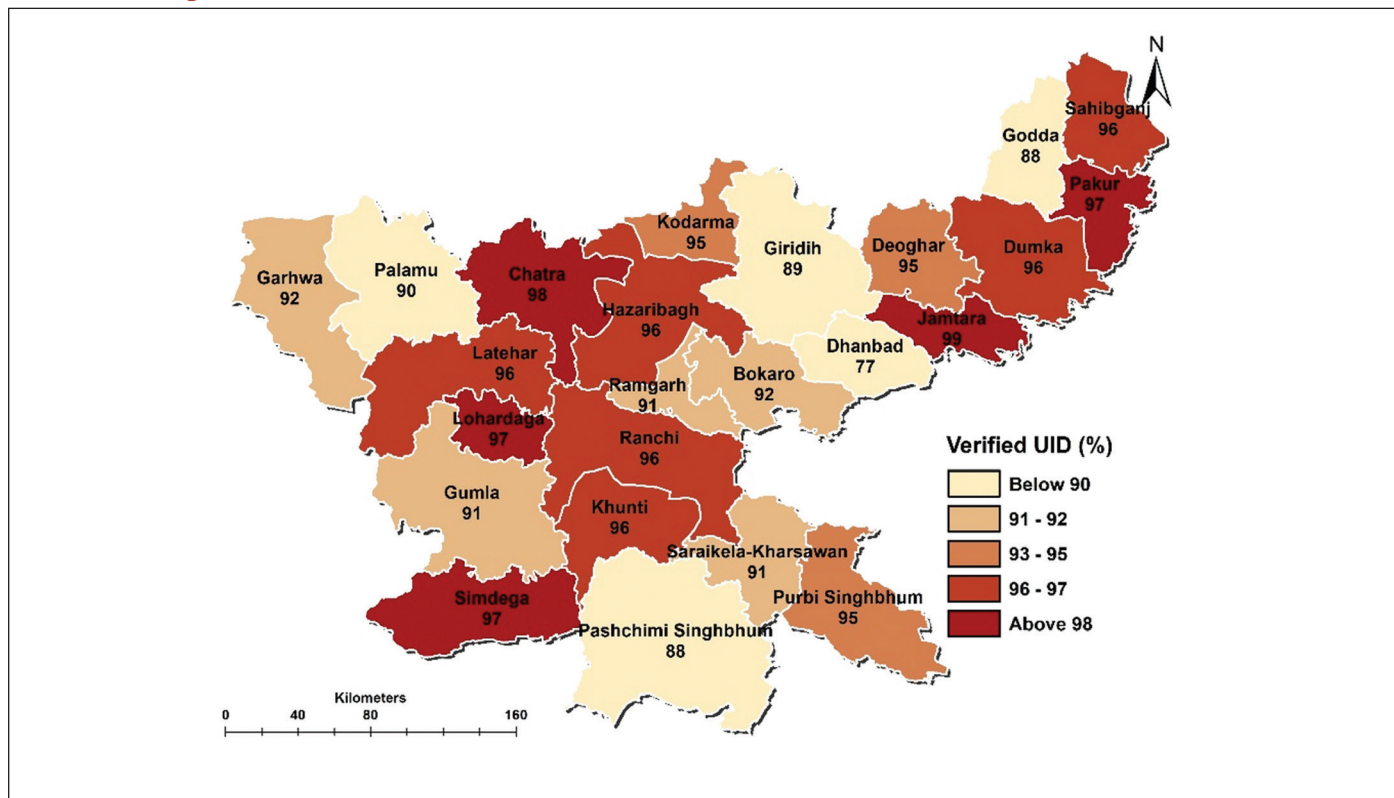


Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Among the different districts of the state of Jharkhand, Simdega, Lohardaga, Chatra, Pakur and Jamtara have the highest number of UID verified ration cards,

while districts like Paschimi Singhbhum, Dhanbad, Giridih, Palamu and Godda have the least number of UID verified ration cards.

Map 7.4: District-wise Ration Card Holders with UID Verification as on 18.12.2017



Source: Compiled using data from Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

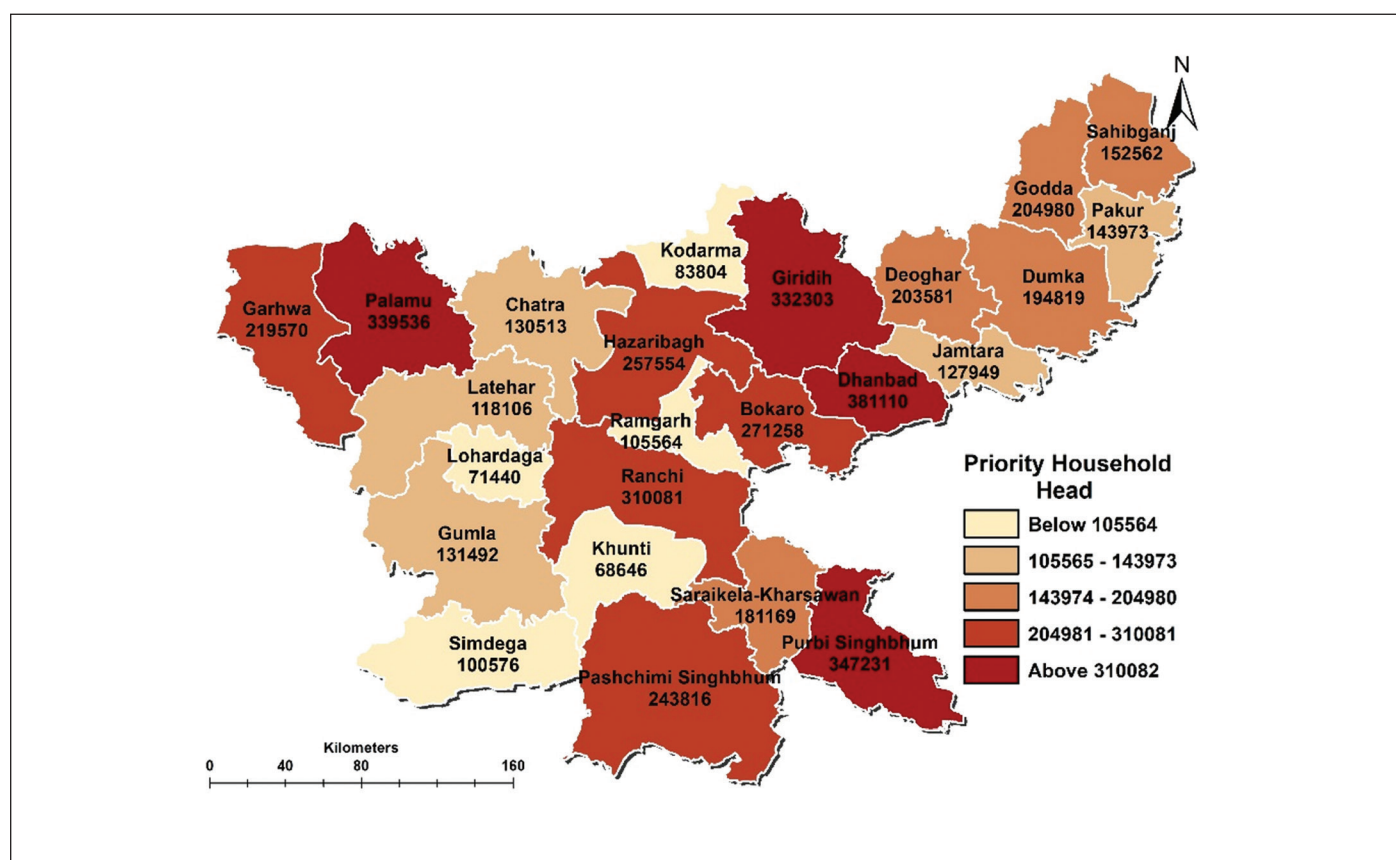
District-wise Direct Benefit Transfer (DBT) Report

Direct Benefit Transfer (DBT) scheme was launched with a motive of directly transferring the said amounts in the bank accounts of the respective beneficiaries. This aimed to prevent the existing leakages in the system. The following maps depict the total number of PHH and AAY beneficiaries who are availing the benefit of DBT.

Among the Districts, the highest number of PHH

beneficiaries who are covered under the DBT are from Dhanbad (381110), followed by Purbi Singhbhum, Palamu and Giridih districts. The least number of PHH beneficiaries are from Khunti (68646), Lohardaga (71440) and Kodarma (83804). The highest number of AAY beneficiaries that are covered under the DBT are from Ranchi (99046), Paschimi Singhbhum (94665), Giridih (68115) and Purbi Singhbhum (58476). The least are in Lohardaga (14007), Latehar (14371) and Deoghar (15425).

Map 7.5: District-wise Priority Households Head (PHH) covered under DBT



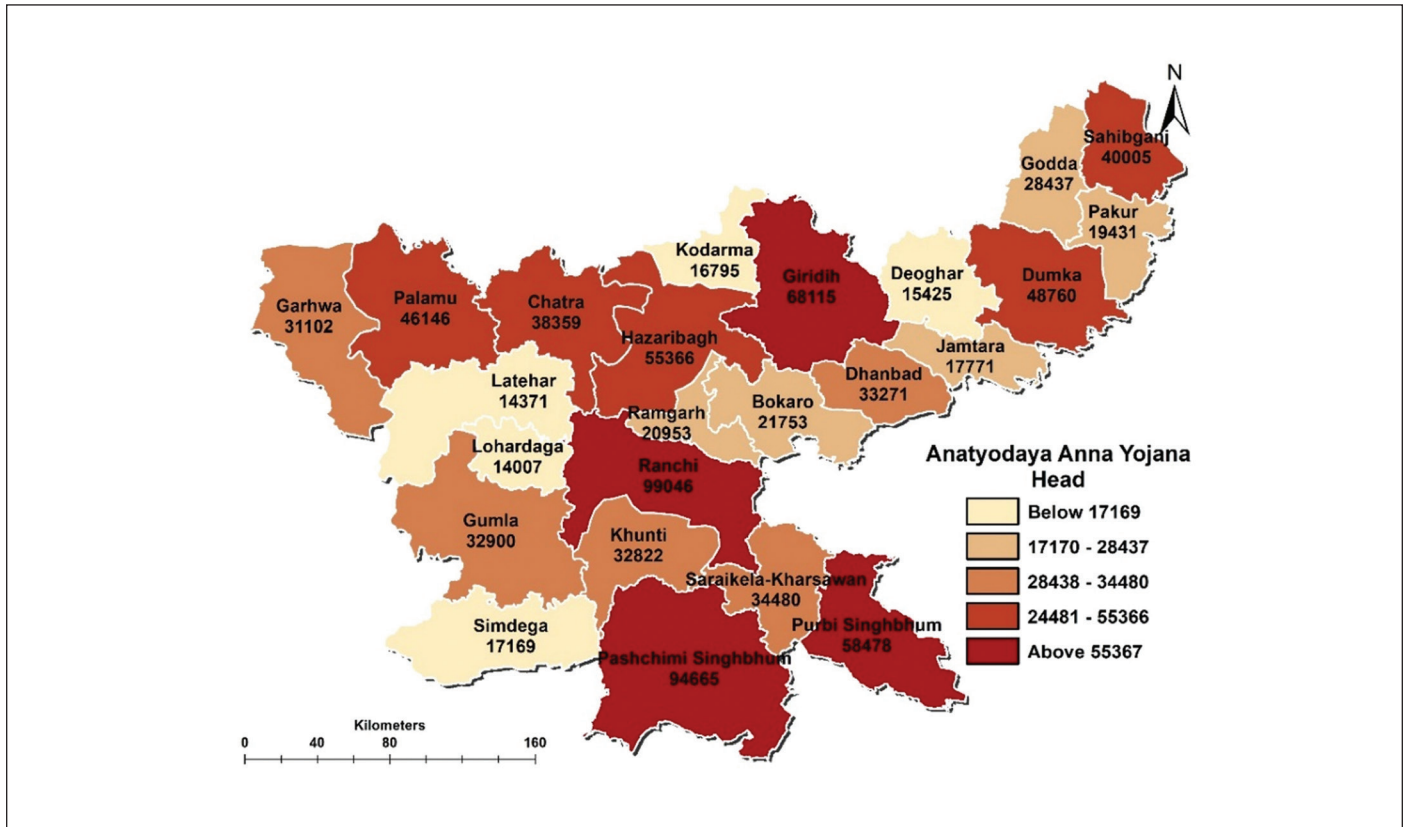
Source: Compiled using data from Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Paddy Procurement Centres

During the financial year 2016-17, a bonus amount of Rs. 130 per quintal was directly transferred into the bank accounts of the farmers for paddy procurement in the state and this programme has continued in the financial year 2017-18.

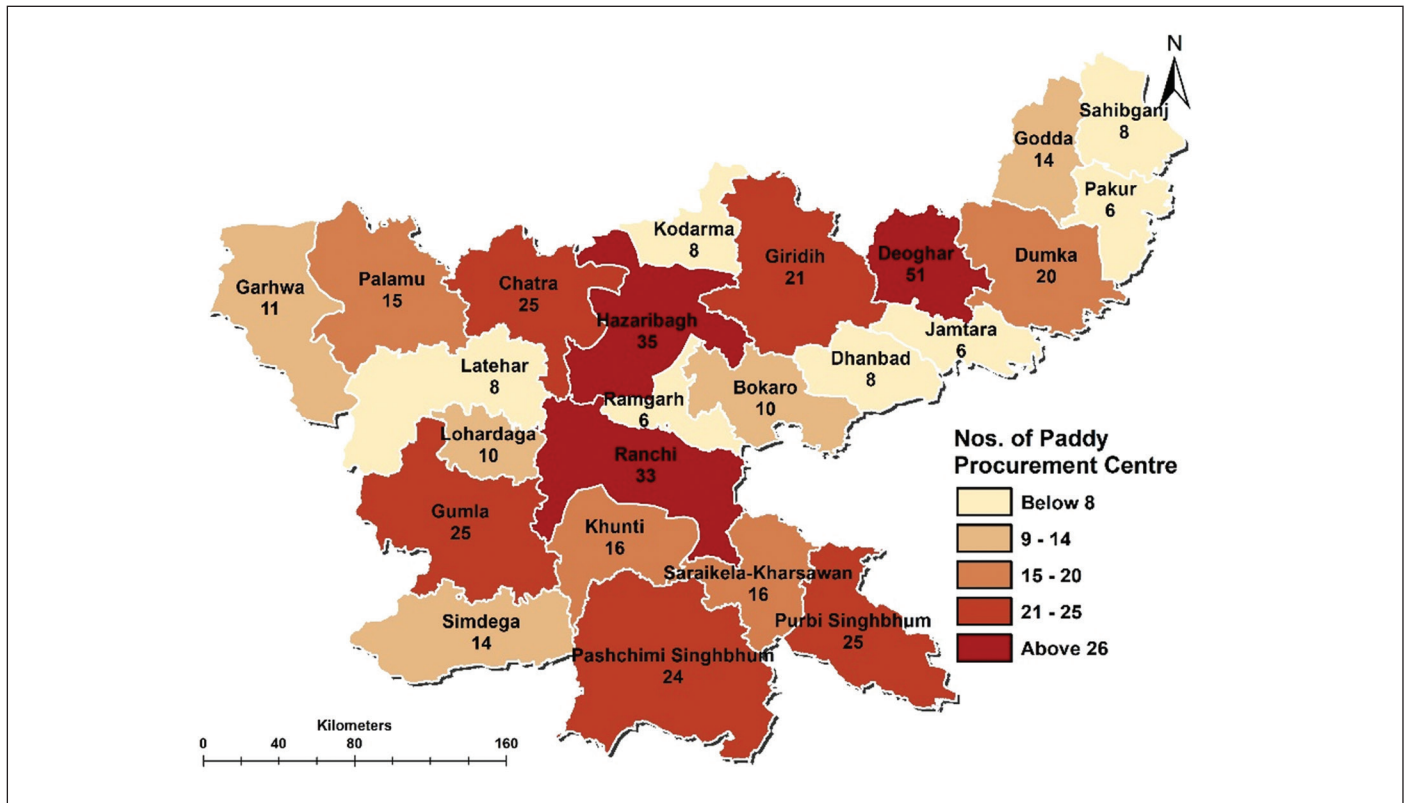
Presently, 415 Paddy Procurement Centres are located in Jharkhand. The highest number of centres are located at Deoghar (51) district, followed by Hazaribagh (35) and Ranchi (33) districts. The least number of the centres are located at Ramgarh, Jamtara and Pakur (6 centres in each district), followed by Dhanbad, Kodarma, Latehar and Sahibganj (8 centres in each district).

Map 7.6: District-wise Anatyodaya Anna Yojana (AAY) Heads covered under DBT



Source: Compiled using data from Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Map 7.7: District-wise Total Number of Paddy Procurement Centres in Jharkhand



Source: Compiled using data from Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Box 7.1: Mega Food Park

The State Government is planning to start a mega food park in Getalsudh village of Jharkhand. It would be declared as a primary workstation of food processing units. Establishment of this park is considered to be the biggest move in the processing of fruits and vegetables. It will thus act as a common platform for both industrialists as well as farmers, and result in greater benefits for both parties involved.

Moreover, the State Government has arranged a single window system which will provide consolidated industrial schemes to farmers for greater benefits. The Department has confirmed the participation of Jharkhand in world food India (to held in New Delhi from November 3rd to November 5th year) as a partner state. This will allow the government to partner with the farmers of the state and entitle it to receive benefits of the Sampada Yojana, as well as, of various employment schemes.

Box 7.2: Advantages of Jharkhand Food Summit

The Jharkhand Food Summit will be organized in February next year. To attract the investors from the food and processing industries of the country and the world, the Food Summit will start from February 23, 2018, and will continue for the next two days. Through the summit, the government will try to focus on the changes made in the Industrial Policy.

The Food Processing Ministry of the Central Government has announced a grant of Rs. 113 crores in view of the food processing potential in Jharkhand. After this, efforts are being made to bring investment in the field of food processing in the State. After the Momentum Jharkhand, more than 32 food processing units have been proposed in the industrial area under Ranchi Industrial Area Development Authority in February 2017.

Jharkhand is the largest producer of tomatoes and third largest State for green peas in the country. Apart from this, the State is also known for producing organic food, small forest product, fish etc. The government wants to develop food processing sector as a flourishing industry, thus this effort will prove to be a big step towards it.

Status of Ongoing Schemes

- **Patr Grihast Yojana**

The Patr Grihast Yojana was implemented in the State from 1st October 2015. Under NFSA, the Central Government aims to provide rice and wheat at Rs. 3 and Rs.2 per kg respectively. The State Government aims to provide the food grains (rice and wheat) at a subsidized rate of Rs.1 per kg. An amount of Rs. 552.71 Crore is proposed for the financial year 2017-18.

- **Anatyodaya Anna Yojana (AAY)**

It is an ongoing scheme. 917900 AAY families are to be covered under this scheme. These families are to be provided 35 kg rice/ wheat at Rs.1 per kg per month. An amount of Rs.164.85 Crore has been proposed.

- **Annapurna Yojana**

Under this scheme, around 54939 beneficiaries will be covered. The beneficiaries identified in the scheme are those persons whose age is more than 65 years and belong to the BPL category. The beneficiaries will be provided 10 kg rice per month free of any charge. An amount of Rs. 4.41 crore has been proposed under this scheme.

- **Subsidized Kerosene Oil (SKO) Distribution Scheme**

Under this scheme, 58.40 lakh households in the state receive subsidized kerosene oil. For this, annually 2,81,000 liters of kerosene oil is allocated to the state. For the distribution of kerosene oil through the public distribution system (PDS), 50 per cent of the PDS shop

owners' commission is borne by the state government, proposed at Rs. 0.5 per liter and the remainder is borne by the consumers. For the financial year 2017-18, an amount of Rs. 13.25 Crore has been budgeted for this scheme.

To prevent leakages under this scheme, during the financial year 2016-17, Direct Benefit Transfer (DBT) scheme was initiated in Chatra, Khunti, Hazaribagh and Jamtara districts on a pilot basis.

- **Godowns Construction / Renovation Scheme**

Under this scheme, the existing godowns are to be strengthened and improved, and the new godowns are to be constructed to expand the storage capacity. For the financial year 2017-18, the government aims to construct godowns of total capacity worth 2,000 metric tonnes in every district of the state. For this, an amount of Rs.75 Crore has been budgeted for the current financial year.

- **Distribution of Double Fortified Free Flow Refined Iodised Salt to PHH/AAY Families Scheme**

This scheme was aimed primarily at the female population of the state to counter the prevalence of anemia within this population group. Under this scheme, a total number of 58.40 lakh PHH families (including AAY families) are covered. Each PHH family and AAY family is supplied 1 kg double fortified refined iodized salt per month at a subsidized rate of Rs. 1 per kg. So as to maintain the

regular supply of salt in the state, through NeML a reverse auction is to be conducted from there the supplier will be selected. For the financial year 2017-18, 77.11 crores have been allotted to this scheme.

- **Mukhaymantri Dal Bhaat Yojana**

Through this scheme, a meal is provided to the poor at Rs. 5 per meal. The meal includes 200 grams of rice, lentils and vegetables. The centre moderator of these centres is provided vegetables, channa dal and soyabean free of cost. The moderator has to pay Rs. 1 per kg to the state government for the rice. 375 Dal-Bhat Kendras have been proposed in this financial year. At present, 12 Ratri Dal-Bhat Centres are running in the state. A proposal has been presented to transfer all dhal-bhat kendras running on government land into *Adarsh Kendras*. In addition to this, during the financial year 2016-17 mobile kitchens were initiated on a pilot basis. These kitchen targeted clusters of daily wage earners or village Hats in Ranchi, Jamshedpur, Dhanbad and Palamu. This scheme is slated to be extended to other districts in the state.

- **Pradhan Mantri Ujjwala Yojana**

Through this scheme, the State Government in coordination with Central Government is providing free LPG connection to the BPL families. The State incurs an expenditure of Rs, 1,595 per connection towards Gas Stove and first Gas refill. During the financial year 2017-18, 7.5 lakh BPL families are to be covered under this scheme.

- **Distribution of Sugar to AAY/PHH Families**

Under this scheme, all the PHH and AAY families who are covered under the NFSA will be distributed sugar per month at a subsidised rate. The families will be provided sugar depending on the dietary habit/central allocation/preferences of the population. Also, the dues of the direct store delivery (DSD) of the previous years including that of the levy sugar scheme would also be met from allocation under this scheme. A budget of Rs. 150 crores have been proposed for the scheme.

- **National Food Security Compliant Redressal**

There is a need for a proper mechanism for monitoring, supervision and redressal of the grievances under the National Food Security Act (NFSA). For the better evolution of this mechanism Call Centres, Helplines, DGRO, State Food Commission etc are to be established. For the financial year 2017-18, an amount of Rs. 2.00 crore has been allocated for this scheme.

- **Consumer Welfare Fund**

During the financial year 2017-18, the consumer welfare fund has been established. To create awareness among the consumers and to protect the interest of the consumers an amount of Rs. 10 crores had been proposed for initiating the fund. The Jharkhand government will contribute Rs.2.5 crore and the Central government will contribute Rs. 7.5 crore.

- **Distribution of Digital Weighing Machine to PDS Dealers**

To prevent pilferage in the distribution of food grains and to ensure that the beneficiaries get adequate quantity of food grains, the government has proposed the use of digital weighing machines in all the PDS shops. During the financial year 2016-17, these machines were installed on a pilot basis in the PDS shops in Ranchi district and in *Anubhajans* of Dhanbad and Jamshedpur.

- **Kaushal Vikas Yojana (Skill Development, Training/Workshop/Broadcasting)**

Through this scheme, the department tries to strengthen and improve the ongoing schemes of the department and successfully implement NFSA 2013 in the state. Information dissemination is an important aspect of generating awareness among the people regarding different programmes and schemes of the Government for which provision has been made. Funds shall also be used for education and empowerment of consumers by disseminating information on their rights and duties. the department also uses print media presentations and conducts seminars to create awareness and spread knowledge among the beneficiaries,

New Schemes

- **Godown Mazdoor Kalyan Yojana**

Through this scheme, the department is attempting to address the difficulties faced by the godown labourers. Under this scheme, the workers are provided with an insurance cover. For the financial year 2017-18, an amount of Rs. 10.00 lakh has been proposed for this scheme.

- **Particularly Vulnerable Tribal Group (PVTG) Dakiya Scheme**

Under this scheme, a primitive tribe population (PTG) family is provided 35 kg food grains free of cost at their doorstep. Along with this, the department also plans to provide other nutritional supplements to them. For the financial year 2017-18, an amount of Rs. 2.00 crore has been allocated for this scheme.

Conclusion

This Chapter summarizes the basic achievements and plans of the department towards the improvement of

the public distribution system in the state. Although the department lags behind in the distribution of the required amount of salt and sugar in specific districts of the state, the transaction of food grains has been overall impressive. The continuous efforts by the department to increase the storage capacity, providing food grains especially to the vulnerable groups through Dakiya scheme, insurance scheme for godown workers etc. are a step forward. Even though the state is not at par with the national standards, its initiatives and plans intend to catalyse the development of the public distribution system in Jharkhand.

VIII

INDUSTRY



The Government of Jharkhand strongly advocates Industrial development, which will provide a big fillip in placing Jharkhand on the industrial map of India. The State Government of Jharkhand is committed to creating employment opportunities for local people through rapid Industrialization. It has been experienced that Micro, Small and Medium Scale Industries have a large potential for employment generation for the younger population.

Jharkhand is presently producing about 20-25 per cent of the total steel in the country. With the proposed expansion of a number of integrated steel plants, Jharkhand will be producing over 25 MT of steel and can thus be a potential steel-hub in India. Jharkhand is also one of the richest mineral zones in the world and boasts of 40 per cent and 29 per cent of India's mineral and coal reserves respectively. Due to its large mineral reserves, mining and mineral extraction are the major industries in the state. Jharkhand is rich in mineral resources such as coal (27.3 per cent of India's reserves), iron ore (26 per cent of India's reserves), copper ore (18.5 per cent of India's reserves), uranium, mica, bauxite, granite, limestone, silver, graphite, magnetite and dolomite. Jharkhand is the only state in India to produce coking coal, uranium and pyrite. With 25.7 per cent of the total iron ore (hematite) reserves, Jharkhand ranks second among the states.

Jharkhand ranks first in production of Tasar Silk in the country. In order to maintain the leading edge and rejuvenate existing rural industries including Sericulture, Handloom, Handicraft, Khadi, Textile etc, it is envisaged to assist them with technological upgradation, establishment of common facility centres, creating backward and forward linkages,

improving product design and providing marketing support.

The industries of the state also enjoy a unique location-specific advantage as it is close to the vast market of eastern India. It is closer to the ports of Kolkata, Haldia and Paradip, which helps in the transportation of minerals.

The state, in addition, has attracted Foreign Direct Investment (FDI) equity inflows worth US\$ 113 million during the period April 2000 to June 2017, according to data released by Department of Industrial Policy and Promotion (DIPP).

Jharkhand offers a wide range of fiscal and policy incentives to industries, under the Jharkhand Industrial and Investment Promotion Policy, 2016. The state also has policies for IT and special economic zones (SEZs) offering sector-specific incentives, as well as the Jharkhand Energy Policy 2012, which aims to supply reliable and quality power in an efficient manner at a reasonable price. Jharkhand stands 7th among Indian states in the Ease of Doing Business Index, as per the report 'Assessment of State Implementation of Business Reforms 2016' by the World Bank and DIPP. Government of Jharkhand has also embraced the changes in new business environment over the last few months. To attract investment in Jharkhand, the Government of Jharkhand organized the Global Investor summit (GIS) at Ranchi on 16-17 Feb. 2017. Department of industries has also developed a Single Window portal, www.advantage.jharkhand.gov.in to enable investors to get approvals from respective departments online. Efforts are being made to put all information required for investment on the portal to attract investments.

This all in-turn will make Jharkhand a more attractive place for ideal investments and progress towards development of the state.

Recent developments that took place in terms of infrastructural improvements and stimulating the industries in the state to join in and prosper are as follows:

- In May 2017, Ramky Infrastructure bagged a US\$ 50.12 million highway project in Jharkhand. The project was awarded by the National Highways Authority of India (NHAI), and pertains to four-laning of 40.5 km stretch of Barhi-Hazaribag section of NH 33 in the state.
- In May 2017, the state government and Oracle signed a MoU to improve citizen services and to make Jharkhand an attractive destination for start-ups.
- The central government has started work on a multi-modal terminal on the river Ganga at Sahibganj in Jharkhand. This is a part of the 1,390-Km long national waterway-1 being constructed between Varanasi and Haldia. It will have a cargo handling capacity of 2.24 million tonnes per annum.
- In March 2017, the Airports Authority of India (AAI), Defense Research Development Organization (DRDO), and the Government of Jharkhand signed a tripartite MoU for the development of the Deoghar Airport. For the project, the state government will provide US\$ 29.74 million, and AAI will provide US\$ 7.47 million.
- As of March 2017, the state plans to develop Ispat Nagar railway station for passenger trains in Bokaro. The station will be convenient for the passengers traveling on the Bhojudih-Adra and Howrah route.
- Jharkhand Education Project Council, in collaboration with Sampark Foundation, launched Sampark Smart Shala program with an investment worth US\$ 5.94 million to reach 26,000 primary schools in the state.
- Under Jharkhand Automobile and Auto-Component Policy 2015, the government plans to create additional employment opportunities for 50,000 personnel in this sector by 2020 and encourage establishment of Tier-1, Tier-2 and Tier-3 auto-component manufacturers in the state.
- The Ministry of Power has electrified 56 villages in Jharkhand as a part of Government of India's objective to electrify 18,500 un-electrified villages by May 2018.
- Energy department of Jharkhand plans to set up rooftop solar power plants on 100 government office buildings.
- Jharkhand has received an approval from the central government for US\$ 210 million assistance from the World Bank for urban infrastructure projects.
- Jharkhand Industrial and Investment Promotion Policy 2016 have been launched in order to foster manufacturing and innovation, create employment opportunities and state-of-the-art infrastructure and enhance inclusivity through various sectors of the state.

Table 8.1: Key sectors to look out for

| Sector | Initiative |
|----------------------|--|
| CEMENT | In April 2017, Burnpur Cement announced plans to launch a new product - PPC (Pozolona Portland Cement) from its plant at Patratu. |
| MINING | <ul style="list-style-type: none"> In March 2017, NTPC announced plans to expand by mining at Pakri Barwadih in Jharkhand, to achieve a capacity of 18 million tonnes of coal production, on an annual basis. As Jharkhand has around 40.0 per cent of the country's mineral wealth, its extensive mineral resources make mining, metals and related sectors especially lucrative for investments. |
| STEEL | The government targets to increase steel production to 25 million tonnes by 2017-18. |
| AUTOMOBILE | More than 600 auto ancillary industries, including auto components units, have been set up subsequently at Jamshedpur and Adityapur to cater to the needs of automobiles companies. |
| TASAR SILK | The state is the largest producer of tasar silk (a non-mulberry silk) in the country, with 76.4 per cent share in the total output. In 2016-17, production of raw silk was estimated at 2,631 metric tonnes. The natural resources, policy incentives and location-specific advantages of Jharkhand support investments in sectors such as mining and metal extraction, engineering, iron and steel, and chemicals. |
| FORESTS | Forests account for 29 per cent of the land area in Jharkhand with thriving biodiversity, fertile land and moderate climate. |
| ENGINEERING INDUSTRY | The major growth drivers of the engineering industry in Jharkhand are availability of raw materials (iron and steel, aluminium, copper and other metals and non-metals), power, water and industrial labour. |
| LIMESTONE | During 2015-16, Jharkhand had around 634.41 million tonnes of limestone reserves. With the reserves of cement grade limestone, this region is well suited for creating additional capacities, both in large and mini cement plants. |

Source: Based on data and information from India Brand Equity Foundation, IBEF

Industry in terms of GSVA and the growth rate story

The contribution of industry (as highlighted in the table below comprising of 'mining and quarrying' and 'secondary sector') to the growth rate of the state has been about 39 per cent in this period. Within this sector, manufacturing, mining and quarrying have been the major contributors to the growth rate

of the state contributing about 22 and 13 per cent, respectively. The other two constituents of Industry, 'Electricity, gas, water supply & other utility services' and 'Construction' have made negligible contribution to the growth of the economy – 0.5 and 3.5 per cent, respectively. This has been because of very slow growth in these two sub-sectors. They grew at a compound annual rate of about two per cent only in last five years.

Table 8.2: Sectoral Contribution of the Industry Sector to the Growth Rate & their Average annual Growth Rate and Average Share in GSVa between 2011-12 and 2016-17

| S. No. | Item | Contribution to growth rate | Av. Share in GSVa |
|-------------|--|-----------------------------|-------------------|
| 1. | Agriculture, forestry and fishing | 5.1 | 14.97 |
| 1.1 | Crops | 0.9 | 8.54 |
| 1.2 | Livestock | -0.1 | 2.87 |
| 1.3 | Forestry and logging | 3.2 | 3.13 |
| 1.4 | Fishing and aquaculture | 1.1 | 0.44 |
| 2. | Mining and quarrying | 13.2 | 11.64 |
| I. | Primary (1+2) | 18.3 | 26.61 |
| 3. | Manufacturing | 21.9 | 22.16 |
| 4. | Electricity, gas, water supply & other utility services | 0.5 | 1.63 |
| 5. | Construction | 3.5 | 9.11 |
| II. | Secondary (3+4+5) | 25.9 | 32.90 |
| III. | Industry (2+II) | 39.1 | 44.54 |
| 6. | Trade, repair, hotels and restaurants | 21.3 | 9.86 |
| 6.1 | Trade & repair services | 20.0 | 9.14 |
| 6.2 | Hotels & restaurants | 1.3 | 0.72 |
| 7. | Transport, storage, communication & services related to broadcasting | 15.6 | 7.90 |
| 7.1 | Railways | 4.0 | 2.43 |
| 7.2 | Road transport | 3.9 | 3.39 |
| 7.3 | Air transport | 0.1 | 0.02 |
| 7.4 | Services incidental to transport | -0.1 | 0.13 |
| 7.5 | Storage | 0.0 | 0.00 |
| 7.6 | Communication & services related to broadcasting | 7.7 | 1.93 |
| 8. | Financial services | 3.4 | 3.05 |
| 9. | Real estate, ownership of dwelling & professional services | 3.4 | 7.94 |
| 10. | Public administration | 2.7 | 5.88 |
| 11. | Other services | 9.4 | 5.86 |
| IV. | Tertiary (6+7+8+9+10+11) | 55.9 | 40.49 |
| 12. | TOTAL GSVa at basic prices | 100.0 | 100.00 |

Source: Calculated from the data of GSDP and related aggregates of DES, Government of Jharkhand.

Manufacturing is the most important sub-sector of industrial sector. The output of this sub-sector constitutes about 50 per cent of the total output of industrial sector overall. The value of the output of mining and quarrying constitutes about 26 per cent and that of the construction sub-sector about 20 per cent of the total output of this sector. In terms of the value of output, the electricity, gas, water supply and other utility services is an insignificant

constituent of industrial sector. The output of this sub-sector contributes only 3.7 per cent to the total output of industrial sector. The share of this sub-sector has declined in last six years - from 3.8 per cent of the total output of the industrial sector in the year 2011-12, to 3.2 per cent in the year 2016-17. The share of the value of output of construction has also declined from about 23 per cent to 19 per cent in this period.

Table 8.3: Value of output of Industrial sector at constant prices

(Rs. in Crore)

| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) |
|---|---------|---------|---------|---------|------------|------------|
| Mining and quarrying | 16205 | 17305 | 17206 | 20179 | 20220 | 23283 |
| Manufacturing | 30166 | 36148 | 33564 | 36720 | 39245 | 41903 |
| Electricity, gas, water supply and other utility services | 2412 | 2863 | 2910 | 2710 | 2476 | 2667 |
| Construction | 14395 | 13443 | 14843 | 14904 | 15688 | 16261 |
| Industry | 63177 | 69760 | 68523 | 74514 | 77629 | 84113 |

Source: Planning –cum-Finance Department (Planning Division), Government of Jharkhand

Table 8.4: Share of the sub sectors in industrial output

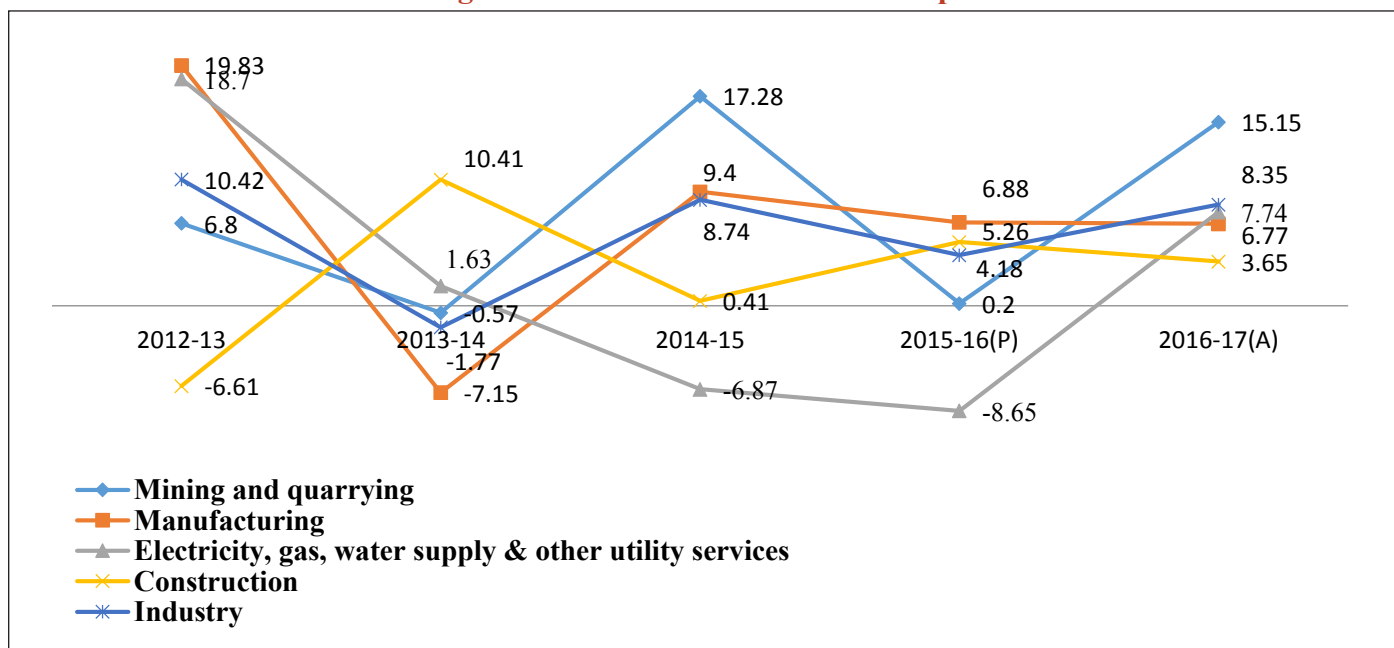
| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | Av. Share in total output |
|---|---------|---------|---------|---------|------------|------------|---------------------------|
| Mining and quarrying | 25.6 | 24.8 | 25.1 | 27.1 | 26.0 | 27.7 | 26.1 |
| Manufacturing | 47.7 | 51.8 | 49.0 | 49.3 | 50.6 | 49.8 | 49.7 |
| Electricity, gas, water supply and other utility services | 3.8 | 4.1 | 4.2 | 3.6 | 3.2 | 3.2 | 3.7 |
| Construction | 22.8 | 19.3 | 21.7 | 20.0 | 20.2 | 19.3 | 20.5 |
| Industry | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Planning –cum-Finance Department (Planning Division), Government of Jharkhand

Improvement in the share of mining, quarrying and manufacturing in the total output of industrial sector is because of their above average growth rate. While the value of output of the industrial sector grew at a compound annual rate of 5.9 per cent, the output of these two sub-sectors grew at compound annual rates of 7.5 and 6.8 per cent respectively, in this period. Electricity, gas, water supply and other utility services

and construction, in this period, grew at compound annual rates of 2 and 2.5 per cent, respectively. The growth rates of these two sub-sectors have not only been low, but have also been excessively volatile. Their standard deviations have been 11.2 and 6.3, respectively. Therefore, their shares in the total output of this sector have fluctuated much more than the other constituents of industrial sector.

Fig 8.1: Growth rate in industrial output



Source: Compiled using data from MSME Annual Report

ANNUAL SURVEY OF INDUSTRIES

The Annual Survey of Industries (ASI), the major source of industrial statistics, provides estimates of various aggregates like fixed and working capital, input, output, value added, employment, etc. pertaining to organised manufacturing sector. ASI covers all factories registered under the sections

2 m(i) and 2m(ii) of the Factories Act, 1948 and Beedi & Cigar units registered under Beedi & Cigar Workers (Conditions of Employment) Act, 1966.

The Annual Survey of Industries 2013-14, shows that the share of Jharkhand to the All-India Figures, almost minial is slowly progressing and making steady improvements.

Table 8.5: Selected Indicators of Industries ASI (2013-14) data analysis: Factories and Fixed Capital (Rs. In Crore)

| State | Factories (no.) | Share of Factories | Fixed Capital (FC) | Share of Fixed Capital | FC per Factory |
|------------|-----------------|--------------------|--------------------|------------------------|----------------|
| Jharkhand | 219 | 0.57 per cent | 630.43 | 0.33 | 2.88 |
| All- India | 38603 | | 191951 | | 4.97 |

Source: Annual survey of Industries 2013-14

Table 8.6: Selected Indicators of Industries ASI (2013-14) data analysis: Employment (Rs. In Crore)

| State | Employment (Total Persons Engaged) | Employment per Crore of FC | Share of Employment |
|------------|------------------------------------|----------------------------|---------------------|
| Jharkhand | 6470 | 10.26 | 0.36 per cent |
| All- India | 1773355 | 9.24 | |

Source: Annual survey of Industries 2013-14

Table 8.7: Selected Indicators of Industries ASI (2013-14) data analysis: GVA (Rs. In Crore)

| State | Output | Input | GVA | GVA per cent | Share of GVA |
|-------------------|---------|---------|--------|----------------|---------------|
| Jharkhand | 2928.65 | 2625.97 | 302.68 | 11.53 per cent | 0.33 per cent |
| All- India | 934149 | 842496 | 91653 | | |

Source: Annual survey of Industries 2013-14

Table 8.8: Select Indicators for industries in Jharkhand

| Select Indicators 2012-13 | | | |
|-----------------------------------|-------------|-----------|-------------------|
| Category | Jharkhand | India | per cent in India |
| Number of Factories | 2697 | 222120 | 1.21 |
| Fixed Capital | 67284693.09 | 218026022 | 3.09 |
| Working Capital | 1024577 | 60341107 | 1.7 |
| Invested Capital | 89370142.84 | 314411215 | 2.84 |
| Number of Workers | 127287 | 10051626 | 1.27 |
| Wages to Workers | 249485 | 11089620 | 2.25 |
| Total Emoluments | 557785 | 23805727 | 2.34 |
| Prov. Fund and Other Welfare Exp. | 133936 | 3696609 | 3.62 |

Source: Annual Survey of Industries 2012-13, (Value Figures in Rs. Lakhs & Others in Numbers)

The no. of factories, total persons employed and total emoluments have grown at 7 per cent, 5 per cent and 18 per cent respectively for the period 2005-06 to

2012-13. Needless to point then that emoluments have recorded tremendous growth.

Table 8.9: YoY per cent growth in no. of factories, Total Persons Employed and Total Emoluments

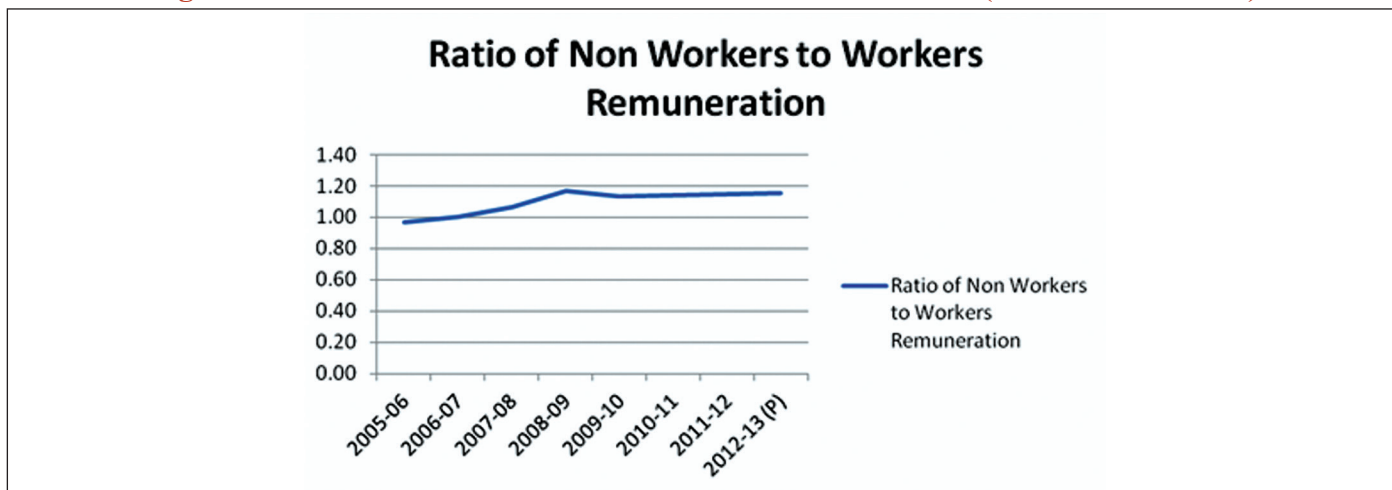
| | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 (P) | YoY - AV |
|--------------------------|---------|---------|---------|---------|---------|---------|-------------|----------|
| Factories % | 3.25 | 1.16 | 6.10 | 2.29 | 33.22 | 2.78 | 2.10 | 7.3 |
| Total Persons employed % | 13.35 | 1.20 | 8.37 | 4.10 | 7.66 | 5.79 | -3.60 | 5.3 |
| Total emoluments % | 19.92 | 18.81 | 22.76 | 13.57 | 24.69 | 17.15 | 11.12 | 18.3 |

Source: Annual Survey of Industries

Delving deeper, in the figure below, we find that when this increase is disaggregated between the non-workers' and the workers' share, the proportion is greater than one for the entire reference period. This points to the widening wage gap and hence rising inequality across the various segments of the society which brings into sharp focus the crying need for

skill upgradation and skill development programs so as to bring about some sort of parity between the two different classes of workers. Simon Kuznets had first observed this fall out of Industrialization in any economy when inequality in income distributions keeps rising though the initial momentum phase and later stabilizes.

Figure 8.2: Ratio of Non Workers to Workers Remuneration (2004-05 to 2014-15)

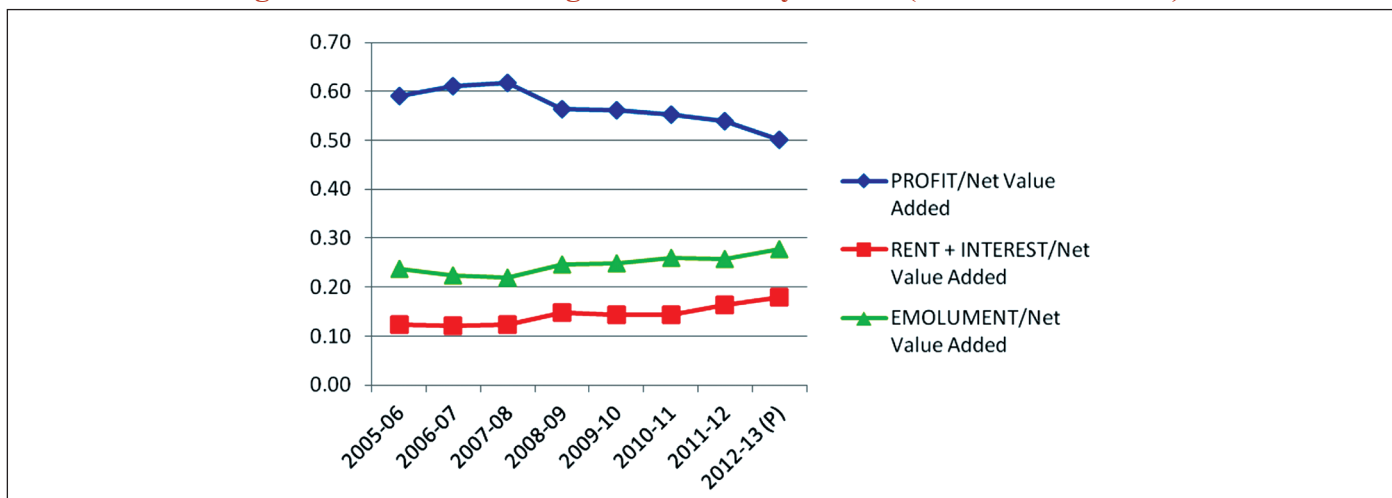


Source: Annual Survey of Industries

Do wages, profits and productivity move in tandem? As reflected in the figure below, the decline in ratio of profits to net value added since 2008-09 may be largely due to the global recession and hence the downturn in the manufacturing sector. This trend coincides with the national trend for the reference period when the share of profits peaked in 2008 and

has since been deciling. Quite in contrast, the ratio of total emoluments to net value added has shown a gradual upward trend since the 2008-09 period. This may in part be due to increasing mechanization which demands high skilled workers. This follows from our earlier observation that the ratio of non workers' to workers' wages has been rising¹.

Figure 8.3: Trends in Wages- Productivity-Profits (2004-05 to 2014-15)



Source: Annual Survey of Industries

Index of Industrial Production in Jharkhand

The growth of the industrial sector is measured using the Index of Industrial Production (IIP). The present index of industrial production covers mining, manufacturing and electricity sectors. At the

state level, for Jharkhand, data is available for the manufacturing sector alone. The table below presents the IIP for the state, for the manufacturing sector for the financial years 2012-13 and 2013-14. We observe that manufacturing of wearing apparel, except custom

1 This situation has not changed much since the last economic survey for the year 2013-14. The reflections are largely the same for the current financial year (2014-15).

tailoring, manufacture of pharmaceutical, medicinal chemicals and botanical products, manufacture of electrical equipment and production, processing and preservation of meat, fish, fruit, vegetables, oils and fats showed a double-digit growth over the last year.

However, manufacturing of computer and peripheral equipment, repair and installation of machinery and equipment and manufacturing of communication equipment, has declined by more than 10 per cent over the last financial year.

Table 8.10: Index of Industrial Production National Industrial Classification 2008-Jharkhand

| Description | 2012-13 | 2013-14 | Change |
|--|---------|---------|--------|
| Production, Processing and preservation of meat fish, fruit, vegetables, oils and fats | 98.42 | 108.90 | 10.65 |
| Manufacture of dairy products | 103.06 | 97.66 | -5.24 |
| Manufacture of grain mill products, etc. and animal feeds | 104.76 | 105.01 | 0.24 |
| Manufacture of other food products | 102.47 | 98.12 | -4.25 |
| Manufacture of beverages | 107.80 | 106.65 | -1.07 |
| Manufacture of tobacco products | 99.58 | 100.42 | 0.84 |
| Manufacture of textiles & cotton ginning | 105.95 | 110.62 | 4.41 |
| Manufacture of wearing apparel, except custom tailoring | 110.38 | 131.90 | 19.50 |
| Manufacture of leather and related products | 107.25 | 112.78 | 5.16 |
| Manufacture of Basic Iron and Steel. Casting of iron and steel | 102.04 | 103.82 | 1.74 |
| Manufacture of basic precious and non-ferrous metals, Casting of non-ferrous metals | 101.10 | 91.85 | -9.15 |
| Manufacture of fabricated metal products, except machinery and equipments | 95.34 | 88.66 | -7.01 |
| Manufacture of electronic components, consumer electronics, magnetic and optical media | 93.33 | 84.31 | -9.66 |
| Manufacture of computer and peripheral equipment | 86.13 | 72.64 | -15.66 |
| Manufacture of communication equipments | 107.16 | 75.86 | -29.21 |
| Manufacture of optical and electronics products n.e.c | 97.97 | 93.00 | -5.07 |
| Manufacture of Electrical equipments | 100.47 | 113.96 | 13.43 |
| Manufacture of machinery and equipments n.e.c | 95.07 | 90.42 | -4.89 |
| Manufacture of Transport Equipments | 96.21 | 91.47 | -4.93 |
| Manufacture of coke, refined petroleum products, rubber and plastic products | 108.48 | 114.14 | 5.22 |
| Manufacture of chemical and chemical products except pharmaceuticals, medicinal and botanical products | 103.76 | 113.02 | 8.92 |
| Manufacture of pharmaceutical; medicinal chemicals and botanical products | 103.78 | 118.88 | 14.55 |
| Manufacture of rubber & plastic products | 100.24 | 98.12 | -2.11 |
| Manufacture of other non-metallic mineral products | 101.88 | 102.97 | 1.07 |
| Manufacture of wood and of products of wood and cork. except furniture; manufacture of articles of straw and plaiting material | 96.31 | 95.15 | -1.20 |
| Manufacture of paper and paper products | 100.54 | 100.47 | -0.07 |
| Printing and reproduction of recorded media except publishing | 100.54 | 100.47 | -0.07 |
| Manufacture of furniture | 112.65 | 112.36 | -0.26 |
| Other Manufacturing | 92.42 | 77.45 | -16.20 |
| Repair and installation of machinery and equipments | 92.42 | 77.45 | -16.20 |

Source: Directorate of Economics & Statistics, Government of Jharkhand

Investment Climate

The investment climate of the state of Jharkhand has shown improvement, with higher levels of investment, employment generation in the economy, and new units being set up. The level of investments has increased in the year 2014-2015. There has been an increase in investments in Mega industries, Large and Medium industries, food, Micro and Small

industries. The number of units have also shown an increase in all sectors, especially in the Food Industry, where there were no units set up for the last 14 years, but a drastic improvement during the year 2014-15 with 46 units coming up. The Jharkhand Food and Feed Processing Policy can be the probable reason for this. This has also resulted in an increase in the employment levels of the State, which does paint a positive picture of the scenario.

Table 8.11: Industrial investment

| Sl No | Particulars | No of Units | | Investment (Rs. In Cr) | | Employment | |
|-------|---------------------------|--------------------|------------------|------------------------|------------------|--------------------|------------------|
| | | 2000 to March 2014 | 2014 to Dec 2015 | 2000 to March 2014 | 2014 to Dec 2015 | 2000 to March 2014 | 2014 to Dec 2015 |
| 1. | Mega Industries | 39 | 6 | 34250.05 | 4855.74 | 10090 | 4035 |
| 2. | Large & Medium Industries | 123 | 6 | 8683.06 | 112.03 | 10094 | 414 |
| 3. | Food | - | 46 | - | 259.81 | - | 1397 |
| 4. | Micro & Small Industries | 44747 | 3858 | 1592.29 | 176.63 | 168740 | 17342 |

Source: Annual Plan, 2015-16, Government of Jharkhand

MSME (Micro, Small & Medium Enterprises) Sector

MSME sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. MSMEs contributes to nearly 8 per cent of the country's GDP, 45 per cent of the manufacturing output and 40 per cent of the exports and hence, the Government of Jharkhand places a strong impetus on the development of the MSME sector.

The development of the MSME sector can contribute enormously to the socio-economic development of the state. MSME sector underscores entrepreneurship and innovation. Moreover, MSMEs are complementary to large industries as ancillary units.

With the governments making registrations of MSME easier as the nation is moving towards digitalization, these enterprises now have to validate their Aadhar cards and enterprise details online.

Table 8.12: Details on Enterprises by type and social category-wise in Jharkhand

| Total UAMs | General | SC | ST | OBC |
|---|---------|--------------|--------------------------------------|---------------|
| 86294 | 34935 | 7041 | 6143 | 38175 |
| Enterprises with Udyog Aadhar Number | | | | |
| Udyog Aadhar Registered | | Micro | Small | Medium |
| 86296 | | 82100 | 4064 | 132 |
| Total Enterprises (Manufacturing and Services) | | | | |
| Udyog Aadhar Redg. (Manufacturing) | | | Udyog Aadhar Redg. (Services) | |
| 28852 | | | 57386 | |

Source: www.udyogaadhar.gov.in; Ministry of Micro, Small and Medium Enterprises, Government of India

Table 8.13: Year - wise number of Entrepreneurs memorandum - Part -II filled by the Micro, Small & Medium Enterprises during the period 2007-08 to 2014-15 in Jharkhand

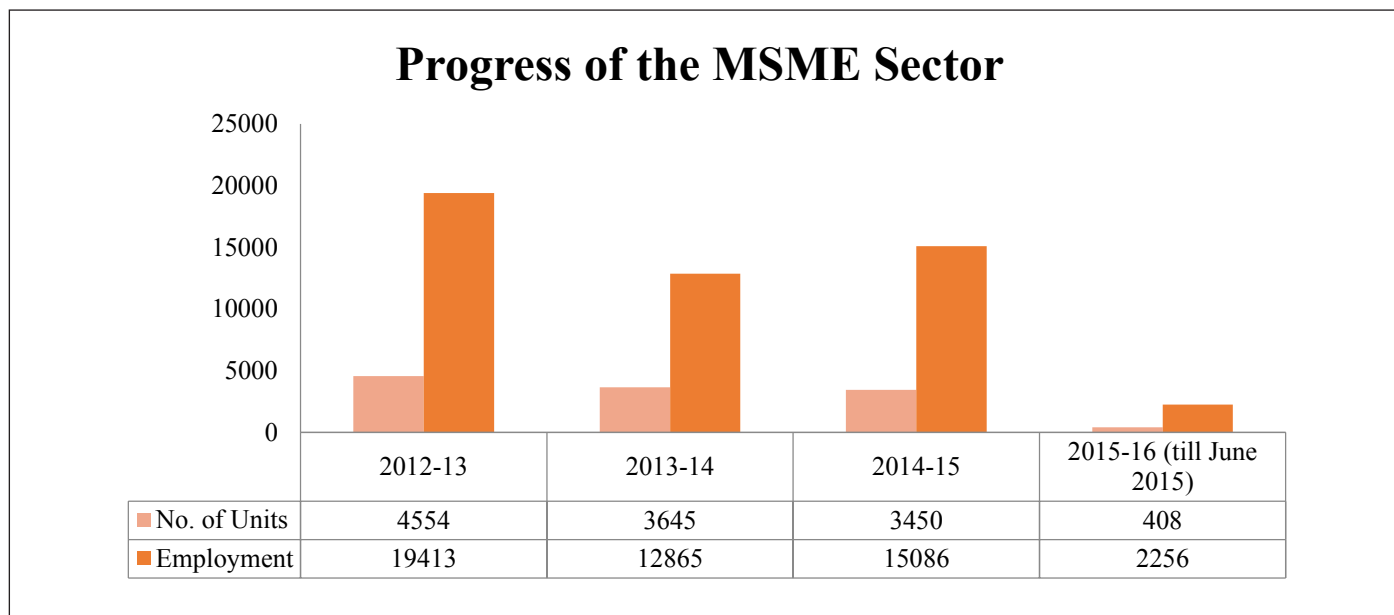
| Sl. No. | Year | Number of EM Part- II field MSMEs | | | Total | Investment (in lakhs) | Employment |
|---------|---------------------|-----------------------------------|------------|-----------|--------------|-----------------------|--------------|
| | | Micro | Small | Medium | | | |
| 1 | 2007-08 | 855 | 84 | 1 | 940 | 10855.94 | 6672 |
| 2 | 2008-09 | 974 | 76 | 1 | 1051 | 12867.7 | 6609 |
| 3 | 2009-10 | 611 | 56 | 2 | 669 | 7147.55 | 5211 |
| 4 | 2010-11 | 634 | 52 | 4 | 690 | 15094.19 | 6512 |
| 5 | 2011-12 | 889 | 48 | 2 | 939 | 14065.87 | 7097 |
| 6 | 2012-13 | 4432 | 120 | 2 | 4554 | 20402.19 | 19413 |
| 7 | 2013-14 | 3521 | 70 | 54 | 3654 | 11717.28 | 12865 |
| 8 | 2014-15 | 3379 | 69 | 2 | 3450 | 14085.27 | 15086 |
| 9 | 2015-16 (June 2015) | 384 | 22 | 2 | 408 | 3578.62 | 2256 |
| | Total | 15679 | 597 | 70 | 16355 | 109814.61 | 81721 |

Source: Ministry of Micro , Small and Medium Enterprise, Government of India

The figure below depicts the progress of the MSME sector over the years from 2012-13 to 2015-16. The 2015-16 data is available until June 2015, where the number of units stood at 408 and the employment

stood at 2256, for the first quarter of the financial year 2015. The number of units in 2014-15 was 3450 and the employment was 15086 for the same year.

Figure 8.4: Progress of the MSME Sector

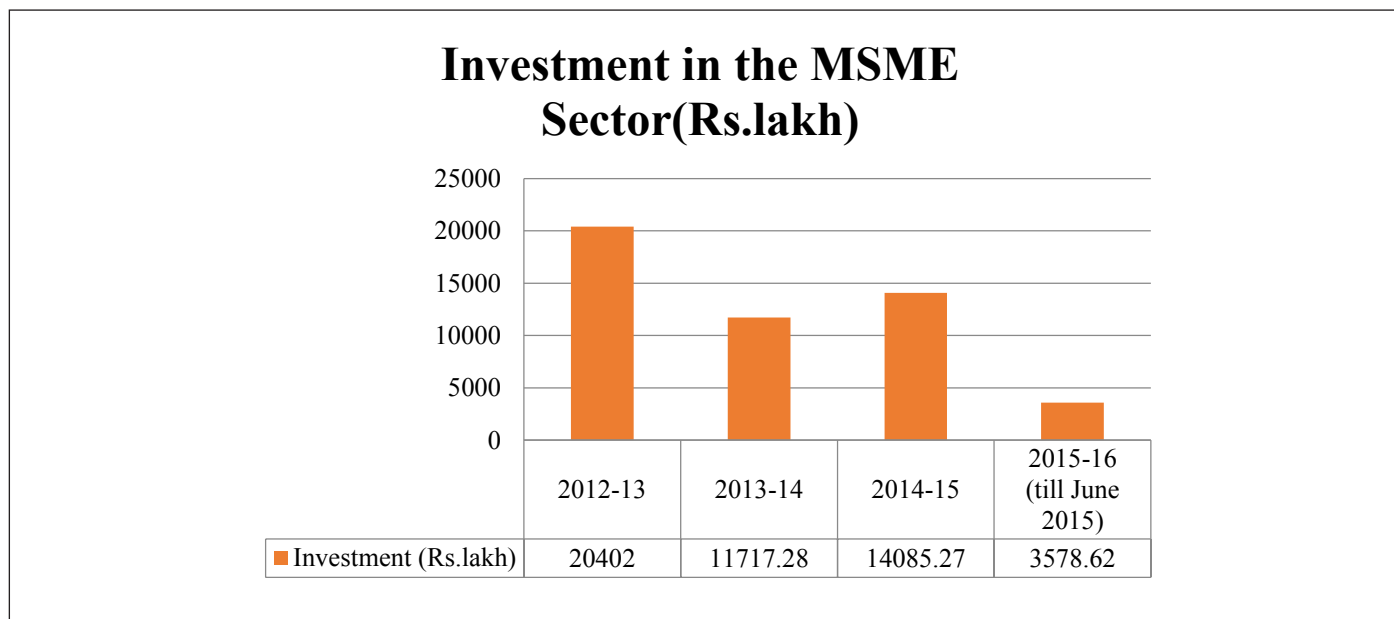


Source: Ministry of Micro , Small and Medium Enterprise, Government of India

The figure below shows the amount of investments that took place year after year from 2012-13 to 2015-16. In 2012-13, the investments stood at Rs 20,402 lakh. In 2013-14, the investments made were to

the tune of Rs. 11,717 lakh and in 2014-15, it was Rs. 14,085 lakh. Until the month of June 2015, the investments for the financial year of 2015-16 stood at Rs. 3578 lakh.

Figure 8.5: Investment in the MSME Sector



Source: Ministry of Micro , Small and Medium Enterprise, Government of India

The progress of PMEGP over the years has been elaborate in the table below, with the No of beneficiaries being added every year and the margin

money. In 2015-16, there were 1260 beneficiaries in total from all the institutions, and the margin money was Rs. 2094 lakh approximately.

Table 8.14: Progress in PMEGP

| Name of Institution | 2013-14 | | 2014-15 | | 2015-16 | |
|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | Physical | Financial | Physical | Financial | Physical | Financial |
| | No. of Beneficiaries | Margin Money in Lakh | No. of Beneficiaries | Margin Money in Lakh | No. of Beneficiaries | Margin Money in Lakh |
| D.I.C. | 2125 | 2947.38 | 527 | 977.39 | 799 | 1192.90 |
| K.V.I.C. | 745 | 1341.00 | 192 | 356.21 | 231 | 538.91 |
| K.V.I.B. | 582 | 807.23 | 107 | 198.42 | 230 | 362.60 |
| Total | 3452 | 5095.61 | 826 | 1532.02 | 1260 | 2094.41 |

Source: Planning- cum- Finance Department (Planning Division) Government of India

As MSME sector is an integral part of the state's economy, the government intends to offer a conducive eco-system and competitive fiscal incentives to MSME's, through the Jharkhand Industrial and Investment Promotion Policy, 2016. Some of the strategies that would be undertaken are described as follows:

- Price preference will be allowed for goods manufactured by Micro and Small Industries of Jharkhand in case of purchases by the government departments and state owned PSUs including boards, corporations, development authorities, improvement trusts, municipalities, notified area committees, cooperative bodies and institutions aided by the state government and companies where the government share is 50 per cent or more.
- The state government proposes to formulate a Marketing Policy for safeguarding the interest of the local Micro and Small Enterprises (MSE). GoJ launched the Procurement Policy in 2014.
- Providing platforms for interaction between enterprises of Jharkhand and potential domestic and global markets through trade fairs, road shows etc.
- Encouraging the MSEs to participate in

national and overseas business fairs and exhibitions, and international delegations.

- Setting up a permanent exhibition-cum-convention centre for exclusive display of MSME products.
- Special emphasis will be given on providing Common Facility Centres (CFC) mainly through Public-Private-Partnership (PPP) initiatives to MSME projects of a cluster.

Government Initiatives

The Department of Industries' organizations like Jharkhand Industrial Area Development Authority, Jharkhand, State Khadi & Village industries Board, Jharkhand Industrial Infrastructure Development Corporation (JIIDCO), Single Window Society and JHARCRAFT are making significant contributions in industrialization of the state. The government is also committed to provide international standard infrastructure and facilities in the industrial areas and estates managed by the Jharkhand Industrial Area Development Authority.

Jharkhand government is also keenly working towards skill development, improving exports, mineral-based products, agriculture and processed food products, to ensure increased industrial development across the state. Jharkhand is leading and wooing investors in mineral exploration, plastics

and rubber, chemicals, electrical, cement, metallurgy and automobile components, equipment's for heavy engineering companies etc.

There have been several new initiatives that have been taken up by the Department of Industries, Government of Jharkhand. The Jharkhand Automobile and Auto-Component Policy 2015 has been launched, which

promises to generate employment and encourage manufacturing in the state. Also moving forward with the single window portal to help investors, to launching of the Food Processing Industry Policy 2015, the Feed Processing Industry Policy 2015, the Industrial Park Policy 2015 and the Export policy 2015, Jharkhand is on its way of becoming the Industrial hub of the country.

Box 8.1 : State Level award for Micro, Small and Medium Enterprise for Outstanding performance under various categories

The Government of Jharkhand, Directorate of Industries has invited applications from Micro, Small and Medium Enterprises in Jharkhand for state-level awards for the year 2017, under categories such as Least Accident Safety Award, Energy Conservation Award, Labour Welfare Award, New/innovative Product Award, Maximum Profit/Turnover Award, Electronics Communication Award, Environment Management Award and Sick Industries Turnaround Award where each category will have prizes like Rs. 50,000 for the first position, Rs. 40,000 as second and Rs. 25,000 as third position. It has also invited applications from entrepreneurs that have established their units under Prime Minister's Employment Generation Programme (PMEGP).

Jharkhand Automobile and Auto - Component Policy 2015

The Automotive Industry has been emerging as a sunrise sector in the non-core sector of the country. Automotive industries have been especially recognized as a sector which has the potential for creating employment on a large scale. India has risen to be the second largest two-wheeler manufacturer in the world, seventh in global production in motor vehicles, and every automobile manufacturer in the world has manufacturing facilities in India.

Jamshedpur-Adityapur cities developed as auto cluster over the a period due to strong human capital, entrepreneurship, geographical advantage in the eastern India, quality educational institutions and presence of oldest automobile major of India- TATA Motors.

However, during the same period, Chennai, Pune, Gurgaon and other cities of India have grown phenomenally when compared to Jamshedpur-Adityapur. These two cities of Jharkhand and other industrial areas of Jharkhand have to catch-up with other Indian cities to generate more employment in the automobile sector, in order to improve the living standard of common people.

In this very context, Jharkhand needs a sector specific policy on automobiles and auto-components to convert Jharkhand into one of the leading state in automobile and auto-component manufacturing in the country.

Automobile and Auto - Component Industry in Jharkhand:

One of the India's leading automobile industry- TATA Motors- began manufacturing commercial vehicles

in early 1950s at Jamshedpur. TATA Motors today is among the leaders in producing commercial vehicles in the world and is among the top three companies in production of passenger vehicles in the country. More than 600 auto ancillary industries including auto components units have been set up subsequently at Jamshedpur and Adityapur to cater to the needs of automobiles companies. It has generated more than 20-25 thousand instances of direct employment and several times of that as indirect employment

All types of auto grade steels are being produced at Jamshedpur since 1980s. All necessary infrastructures exist near Jamshedpur - Adityapur for auto ancillaries. The TATA Motors at Jamshedpur has expanded its capacity in different types of vehicles besides putting a new assembly line for the production of World Truck – a heavy-duty goods vehicle that has resulted in the growth of ancillary units and additional employment

Over the last two decades, Tata Steel has been continuously modernizing and expanding its steel production capacity and has also setup the requisite facilities for production of auto grade steel which were earlier being imported. Now all types of auto-grade steel is being produced by Tata Steel, and Jharkhand is presently producing about 25 per cent of total steel being produced in the country. With the expansion of Tata Steel, SAIL Bokaro and commissioning of some other new steel plants like Electro Steel, Jindal Steel, etc., the state will be soon producing over 25 MT of steel and thus turn to be a steel-hub of India. Needless to mention that steel is the main raw material for most auto products.

Keeping this massive potential in view, the state government lays lot of focus on building necessary infrastructures for such industries. With the assistance of Govt. of India, an Auto-Cluster in Jamshedpur is being built with the objective to extend common

facilities such as testing center, design lab, effluent treatment plant, etc. to auto component makers. An Automobile Vendor Park, under PPP or Private Mode with benefits of an industrial park is envisaged to be doled out by the state government.

The existing of numerous auto-ancillaries, availability of skilled manpower, further backed up with the presence of ITI's, NIT, MSME Tool Room, etc. in and around Jamshedpur which are continuously producing more skilled manpower, Jamshedpur/Adityapur provides a very suitable destination for auto majors to come and set up their vehicle manufacturing units here. The advantages for automobile and auto-component industries in Jharkhand may be summarized as follows:

- Proximity to raw material sources, a large market base in and around the state, and a large S.E. Asian export market, makes Jharkhand attractive for Automobile, Auto components, and even White goods manufacturers.
- Tata Steel and Bokaro Steel Plant (both located in Jharkhand); provide freight advantage in sourcing CR sheets.
- Long presence of world-class industries and many more large industries in and around the state, including Tata Motors and South-Eastern Railways, have created an excellent vendor base to support the Automobile sector. It may be noted that Tata Motors produce trucks for the domestic and export markets and the local ancillary is geared up to meet the international quality standards and delivery compliance.
- Usha Martin, Timken, Cummins, TRF, Tinplate, HEC, ICI, etc. produce a wide range of engineering products.

- Hindustan Copper, Central Coalfields and Bharat Coking Coal are into mining (Copper and Coal) and coking coal respectively creating the need for supplying various types of industrial vehicles and mobile equipment such as dumpers, dozers, excavators, cranes, etc.
- Combined market of Jharkhand and Bihar more than 5 per cent of all India market.
- Other nearby markets in Orissa, West Bengal, Chattisgarh and North-East add to the market opportunities.

OBJECTIVES

The main objectives of this policy are:

- a) To make Jharkhand as most preferred destination for automobile and auto-component manufacturing units in Eastern India.
- b) To create additional employment opportunities for 50,000 personnel in this sector by 2020.
- c) To attract mega automobile projects in the state and promote the establishment of new auto-cluster and strengthening of existing auto cluster in the state.
- d) To encourage establishment of Tier-1, Tier-2 and Tier-3 auto-component manufacturers in the state, so as to create direct and indirect employment opportunities and to promote local entrepreneurship.
- e) To identify and address the existing infrastructure gaps affecting the automobile and auto-components industry.
- f) To augment the talent pool to meet the long-term skilled work force requirements of this industry and to encourage Public-Private-Partnership initiatives and Industry- Institution partnerships in skill development.

Box 8.2 : JHARKHAND INDUSTRIAL AREA DEVELOPMENT AUTHORITY REGULATIONS 2016

In exercise of powers conferred by section 15 of the Bihar Industrial Area Development Authority Act 1974 as adopted by the Government of Jharkhand vide Notification No. 339 dated 02.03.2001 issued by the Department of Science Technology, Information Technology and Industries, Ranchi, Jharkhand industrial Area Development Authority, JIADA, with the previous approval of the State government of Jharkhand, This regulation shall be called the Jharkhand Industrial Area Development Authority Regulations, 2016.

The main objective of this regulation is to make provision for planned Development of Industrial Area and promotion of industries and matters appurtenant thereto including judicious allotment of land under the command area of Jharkhand Industrial Area Development Authority for industrial purposes,

Source: Resolution, Department of Industries, Mines and Geology, Government of Jharkhand, dated 16th May, 2016

Jharkhand Single Window Clearance Act, 2015

Jharkhand Single Window Clearance Act, 2015 has been enacted to provide for accelerated and time bound grants for various licenses, permissions and

approvals to promote industrial development; to facilitate new investments; to simplify the regulatory framework by reducing procedural requirements and rationalizing documents, to improve ease of doing business, and to provide for an investor friendly environment in the state of Jharkhand.

Single Window and Single Sign-On for ‘Ease of Doing Business’

State has taken a giant leap by introducing the Single Sign-on at Single Window portal of Government of Jharkhand, i.e., www.advantage.jharkhand.gov.in. A single sign-on technology available at Jharkhand’s portal for Ease of Doing Business portal is the first of its kind in India.

Single Sign-On at Single Window portal allows seamless integration of the single window portal with

the respective department’s portal by eliminating the need of signing in multiple times as well as the need of creating separate login credentials at various department portals.

This feature has been currently made available for availing services of Industries Department, Commercial Tax Department, Labour Department, Jharkhand Industrial Area Development Authority and Jharkhand State Pollution Control Board. Other departments will be integrated in the coming times.

Box 8.3 : Single Window Clearance Committee for mandatory state approvals and industries facilitation for setting up of business and starting of business operations.

In pursuance of the decision of the State Government to ensure accelerated and time bound grant of various licenses, permissions and approvals to promote industrial development; to facilitate new investments to simplify the regulatory framework by rationalising procedural requirements and requirements of documents; to improve ease of doing business and to provide for an investor friendly environment in the state of Jharkhand, the Government of Jharkhand hereby establishes Single Window Clearance Committee (SWCC) as per details given below.

The Single Window Clearance Committee shall consist of the following composition:

| | Members | Designation |
|----|--|-------------------------|
| a. | Principal Secretary/ Secretary, Industry | Chief Executive Officer |
| b. | Principal Secretary/ Secretary, Finance cum Planning | Member |
| c. | Principal Secretary/ Secretary, Revenue Registration and Land Reform | Member |
| d. | Principal Secretary/ Secretary, Urban Development and Housing | Member |
| e. | Principal Secretary/ Secretary, Labour Employment and Training | Member |
| f. | Principal Secretary, Forest, Environment and Climate Change | Member |
| g. | Principal Secretary/ Secretary, Energy | Member |
| h. | Principal Secretary/ Secretary, Water Resources | Member |
| i. | Principal Secretary/ Secretary, Mining and Geology | Member |
| j. | Chairman, Jharkhand State Pollution Board | Member |
| k. | Director of Industries | Member- Convener |

Single Window Clearance Mechanism

For the promotion of investment and industries, in the state of Jharkhand, department of Industries has established a single window clearance system. It is for the “Ease of Doing Business”, and to provide mandatory clearances and disbursement of fiscal incentives within the given time limit. This

mechanism shall have Single Window Clearances Committee under the leadership of the Principal Secretary, Industries with all the important secretaries as members in this committee. This committee shall approve projects including financial incentives at the MSME level and for projects other than that of MSME, this committee shall make recommendations to the High Powered Committee for approval.

Box 8.4 : District Industries Centre

DIC has been established to promote industrialization, specially Micro & Small industries of the state and to implement different programmers of the State and Central Government related with the growth of MSME, Large or Mega Industries. The office of the District Industries Centre acts as a nodal office of the Department of Industries, Mines and Geology for the Industrial Development and implementation of the Industrial Policy of the State Government at district level. These offices play an important role in creating employment generation and to fulfill the expectations of entrepreneurs and educated unemployed youth. For better approach implementation of Government Policies and Prime Minister Employment Generation Programme, online application system/Portal has been launched.

The target is to establish at least 5000 MSME Industries during the Annual Plan 2017-18 with cluster/park.

The Office Building of District Industries Centre is in depleted condition and not adequate also. Hence new/renovation of office building is proposed to be done in these Districts during the Annual Plan 2017-18.

For strengthening DICs, one EODB Manager for each district, one computer operator and one MTS is provided through JIIDCO.

Jharkhand Food Processing Industry Policy 2015

About half of Jharkhand’s population is engaged in agriculture and primary sector, which has a huge untapped potential in agriculture, horticulture, fishery and animal husbandry. Jharkhand offers favourable climatic environment for these products. This potential could be utilized for the development of a vibrant food processing industry in Jharkhand to meet its own needs and provide it to the other states and countries.

The objective is creating a favourable atmosphere for setting-up of food processing units in the state through creation of infrastructure facilities, encouragement of capital investment and technology upgradation, development of marketing network, development promotion, grants and concessions.

- Assistance of up to 35 per cent of the cost of Plant & Machinery and technical civil works, subject to a maximum of Rs. 500 lakhs in general areas (upto 45 per cent in Integrated Tribal Development Project (ITDP) areas for

processing units (new unit modernisation, up-gradation, expansion & diversification)

- Grant-in-aid of 50 per cent of the bank appraised project cost for the general areas and 75 per cent in Integrated Tribal Development Area respectively to a maximum of Rs. 2.5 crore for setting up of primary processing centres/ collection centres in rural areas.
- Grant-in-aid assistance of 35 per cent of project cost (up to a maximum of Rs. 7 Crores) for setting up of cold chains, value addition and preservation infrastructure; also assistance will be up to 50 per cent in case of Integrated Tribal Development Areas.
- Grant-in-aid of 50 per cent of project cost establishment and modernization of meat and fish shops subject to a maximum of Rs. 5 Lakhs; 75 per cent in case of Integrated Tribal Development Areas.

Garhwa and Palamu districts have huge production of *dal*. However, there is no major *dal* processing unit in these districts and there is a lack of forward and backward linkage facilities. Efforts shall be made to setup *dal* processing units in this sector through private sector participation and forward and backward linkage shall be ensured through corporates working in the food-processing sector, especially *dal*. In this initiative, Department of Agriculture, Animal Husbandry and Cooperative shall be encouraged for improving farm extension activities to improve the quality and quantity of *dal* in these districts.

In Latehar district, huge quantity of tomato is produced. However, there is no major tomato-processing unit in Latehar. Safal is establishing a tomato-processing unit in Ranchi. They shall be encouraged to increase the procurement in this region and encouraged to establish semi-processing unit for tomato in the Latehar district.

In addition to Safal, PSU players shall be encouraged to establish processing unit for tomato in Latehar district.

Jharkhand Feed Processing Industry Policy 2015

Animal Husbandry is an area where Jharkhand has huge untapped potential in developing an ecosystem suitable for the progress of Animal Husbandry sector, which includes dairy, meat, piggery, goatery, poultry and fisheries. Availability of suitable 'Feed' is an important component of an animal husbandry ecosystem. This policy will help in developing feed producing capabilities in the state to support the animal husbandry sector. Farmers and intermediaries will also benefit with demand for processing of agricultural by-products and opportunity for additional income.

The main objective is to create a favourable atmosphere for setting-up of animal feed processing units in the state through creation of infrastructure facilities, encouragement of capital investment, technology up-gradation, development of marketing network, development promotion, grants and concessions.

The scheme envisages financial assistance to food processing units in the form of grants-in-aid:

- 35 per cent of the cost of Plant & Machinery and technical civil works, subject to a maximum of Rs. 500 lakhs in general areas.
- 45 per cent of the cost of Plant & Machinery and technical civil works, subject to a maximum of Rs. 500 lakhs in Integrated Tribal Development Project (ITDP) areas.

Jharkhand Industrial and Investment Promotion Policy 2016

Jharkhand Industrial and Investment Promotion Policy 2016, aims to establish state-of-the-art infrastructure, promote manufacturing, enhance inclusivity, foster innovation and create employment opportunities across sectors. The main objective of this policy is to convert Jharkhand into a favoured destination for investors and to promote sustainable industrial growth in the state, to create a time bound web based transparent working mechanism for project clearance, date of production declaration and financial, non-financial assistances and clearances, to establish linkages between large industries and MSME/ancillary industries, etc.

The strategy adopted is elaborated as follows:

The strategy for achieving growth seeks to promote collaboration among regional value chains by encouraging innovative activity and sector-specific interventions:

- Promotion of private investment and PPP mode mechanism in the development of infrastructure. It includes road, power, telecom, industrial estate, industrial clusters and industrial parks including rural & village industrialization e.g. Sericulture, *Khadi*,

Handicraft, Food Processing, Handlooms, Bamboo, Leather, Lac etc.

- Organization of quality training to rural women SHG in Sericulture, Handloom and Handicraft for rural village industrialization.
- Industrial parks of specialized nature shall be promoted by private, joint venture or PPP mode.
- Striving to put in place appropriate arrangements for ensuring timely and adequate flow of credit to industries, specially the MSE sector.
- Development of strong networking with Export Promotion Councils, Commerce and Transport Department, FIEO, ITPO and Product Sectoral Associations and MSME sector associations to give impetus to Public Private Partnership.
- Development of international trade service providers to boost international trade.
- Strengthening of the Single Window System for facilitating exporting Industries.
- Better land management and increasing the availability of developed plots readily for new investors in Industrial Area Development Authority.
- Special incentives are proposed for women, SC/ST entrepreneurs.
- Institutionalization of Monitoring, Evaluation and Grievance Redressal Mechanism.
- Institutionalization of consultation

mechanism with stakeholders and industrial associations.

- Thrust to entrepreneurship and skill development programmes.
- Accelerating Development of Infrastructure.
- Promoting labour intensive industries.
- Focused approach for industrially under-developed areas.
- Strengthening sector-specific skill development and vocational skills.
- Encouraging universities for start-ups & innovative product development.
- Support technology up-gradation and research and development.
- Promotion of trade facilitation &

e-governance.

- Conducive labour reforms including more opportunity for women.
- Focus approach on ‘Make in India’ program:
 - Improving business environment with stress on ‘Ease of Doing Business’.
 - Enable manufacturing processes.
 - Zero effluent discharge plants.

The department with the collaboration of the government has already started walking the path that has been set up by the Jharkhand Industrial and Investment Promotion Policy of 2016. The Jharkhand Textile, Apparel and Footwear Policy 2016 etc., aims to develop Jharkhand into one of the most sought after business and industrial hub in India in this textile sector.

Box 8.5 : Small Industries Cluster Development Programme (SICDP)

Under the Cluster Development Programme of Govt. of India, the identified Clusters of Jharkhand will be developed. These clusters will be integrated to be market for marketing their products.

A separate Cell in Directorate of Industries has been created for the Development of MSME sector. Plant Level Advisory Committee will be formed in all central PSUs to ensure the compliance of Government of India’s Procurement Policy and provisions of Micro, Small and Medium Enterprises Development Act, 2006.

Development of Handicrafts

The state of Jharkhand is very rich in Handicrafts with more than 40 types of handicraft such as *Kantha*, Applique, Satin Stitch, Tie & dye, Terra-cotta, *Tasar* Print, Papier meshe, *Dhokra*, *Agarbatti*, Bamboo and Leather craft, *Pyatkar* and *Jadopatia*

Painting, Tribal Jewellery, Pearl jewellery, Paper packaging, etc.

It is proposed to develop traditional handicraft and to strengthen Urban Haat at Hazaribagh, Giridih & Deogarh. It is also proposed to establish emporiums for Jharcraft at various tourist places to provide marketing support to artisan & weavers.

Handloom Development

Handloom sector has an important role in employment generation and thus, systematic effort was made to revive this sector. Implementations of 35 cluster development schemes were started and more than 120 Primary Weavers societies are engaged in this sector in the State. Jharcraft had been established to provide design, training and marketing support to the sector.

It is proposed to support 5000 weavers in Annual Plan 2017-18. The product line will improve with

Auto CAD design training, e-commerce of products and improvement of loom and replacement of old looms. Upgrading skill of weavers through computer aided design centre will be very useful to the State.

Jharcraft will continue to extend marketing and design support to marketable products. Jharcraft will promote SPV/Joint venture with other PSU, private enterprises/organization. It will promote franchise model of marketing outlets within India and abroad besides online marketing network with strong e-commerce practices on pattern of reputed retail companies

Box 8.6 : JHARCRAFT

The Jharkhand Silk, Textile and Handloom development corporation was formed to provide employment opportunities to people involved in Handloom, Sericulture & Handicraft activities and also to develop & conserve the traditional art of the state.

Accordingly, JHARCRAFT is engaged in imparting training to weavers/artisans/rearers/ reeler & spinners and providing support in production and marketing of their products. The Key points of works carried out by JHARCRAFT are as below:

- Implementation of various schemes of Handloom, Sericulture & Handicraft
- Implementation of Mega Handloom Cluster, Godda sponsored by Government of India and other Central sponsored scheme
- Implementation of computer Aided Design in 5 centres with the help of C-DAC and other State planning and training programme
- Running of 30 marketing outlets in various city to provide marketing support to the persons engaged in production of Handloom, Sericulture & Handicraft goods

JHARCRAFT is working for the development of handloom, Sericulture & Handicraft sector and provide raw material support such as cocoons, yarn, jute etc to the beneficiaries of these sectors. The turnover of JHARCRAFT in 2016-17 was approximately 50.00 (fifty) crores. Working Capital of 5.50 crores shall be provided for financial year 2017-18.

JHARCRAFT is responsible for providing marketing support, design support to the artisans and weavers involved in the sector. Therefore, an amount of Rs 7.00 crore is proposed as management grant.

Sericulture Development

Jharkhand, traditionally a *Tasar* producing State is the leading producer of *Tasar* silk in the country. During 11th plan period, systematic efforts were made to increase the production of *Tasar* silk in the state. More than 1,50,000 farmers and associates with *Tasar* rearing have been covered in the state. The income of farmers per season (45-50 days) has increased from Rs. 5000 to Rs. 55000 per season.

- It is proposed to engage about 1.5 lakh farmers in this sector during Annual Plan 2017-18. The focus will be more value addition in this sector. 30 to 35 per cent, women beneficiaries will be covered in sericulture sector.
- It is proposed to strengthen one year certificate course of JSTDI, Chaibasa in consolidated course covering Sericulture, Weaving, Dyeing and Printing in common syllabus.
- For meeting Physical target, the government will try to get financial assistance from Central Silk Board, NABARD, RKVY, National Livelihood Mission and National Skill Development Corporation including other funding agencies of GOI (welfare dept, etc).
- It is also proposed to promote the production of organic mulberry silk during 12th plan period for area expansion and productivity. 100 Acre mulberry plantation will be covered during 2017-18.
- It is also proposed to earmark some funds for Research and Innovations in this sector.
- The production of silk is proposed to be increased from 1000 MT to 2700 MT and at least 10 per cent of total raw silk production be converted into thread and cloths.
- In addition to rearing of Daba Eco Race, efforts will be made for the rearing of Laria Eco Race of *Tasar* on *Sal* trees. This is going to be one of the important activities in this sector. This will pave the way for export oriented *Tasar* silk production in the country. Jharkhand will guide the other States in *Tasar* sector.
- *Ahimsa* and organic branding of silk with competent certification will be ensured.
- For development of *Tasar* silk and to empower the women in this sector, the Udyami Sahi Mandal shall be formed in all the villages that are having livelihood depending upon *Tasar*. State Government agencies like Jharkhand State Rural Livelihood Promotion Society shall be financially supported for the formation of Udyami Sahi Mandal in the rural areas. Udyami Sahi Mandal shall be provided with training, technology, grants from the government and loans from financial institutions for the development of entrepreneurship among them. Udyami Sahi Mandal shall be encouraged to take up common facility centres created across country that are non-functional and they shall be linked to the market on their own or through Jharcraft or other central government agencies like National Handloom Development Corporation etc.
- Krisak Sambad Suvida scheme through EFFCO Kisan Sanchar Limited (IKSL) will be implemented in 2017-18. Under this scheme, 10000 *Tasar* farmers will be benefitted.
- The annual production for 2017-18 is expected to be about 2700 MT.

Post Cocoon Reeling & Spinning

Jharkhand, traditionally a *Tasar* producing state, was mainly producing *Tasar* cocoons (Raw material of *Tasar* silk). The post cocoon activities having large employment opportunities were taken up on a very small scale in some other states.

State Govt. is keen to develop *Tasar* post cocoon activities in the state in view to provide employment opportunities particularly for the women in the rural areas.

To develop post cocoon activities, Common Facility Centres (CFC) are being established where facility of reeling machines & other necessary equipment are provided for *Tasar* silk reeling for a group of 30 women. After training the women group involved in production of *Tasar* silk, marketing support is provided by Jharcraft. Three month training in reeling and spinning will be provided to 9450 women beneficiaries of 315 CFC during 2017-18.

National Institute of Fashion Technology

The Industry department has proposed to Ministry of Textile, Govt. of India for establishing National Institute of Fashion Technology in Jharkhand. A proposal has already been sent to Govt. and efforts will be made to establish National Institute of Fashion Technology at Ranchi in the year 2017-18.

Khadi

To promote *Khadi* and Village Industries, the state government has established State Khadi & Gramodyog Board. To provide employment & economic development of traditional artisans of Jharkhand, Shilpi Rojgar Yojana is to be implemented during Annual Plan 2017-18. More than 20000 traditional artisans (like Barber, Black Smith, Carpenter, etc) will get self-employment.

Market Development Assistance (MDA)

This scheme has been introduced for *Khadi* and *Polyvastra* in place of previous rebate scheme during Annual Plan 2017-18. MDA at a rate of 20 per cent of the cost of production of *Khadi* and *Polyvastra* shall be apportioned among the artisans, *Khadi* producing institution and selling institution in the ratio of 25 per cent, 30 per cent and 45 per cent respectively. It is being implemented by KVIC & KVIB under control & supervision of KVIC-GOI (MSME)-GOJ. The GOJ is also extending its contribution at 10 per cent (50 per cent of KVIC) to promote growth of rural employment and Khadi movement.

It is proposed to develop & run Khadi Park at Dudhani Dumka & Rajnagar during Annual Plan 2017-18. To promote *Khadi* products and create employment opportunity, it is proposed to establish Sliber plant and open an emporium in Ranchi and renovate old emporium in the same *Khadi* scheme.

Box 8.7 : Industrial Corridor

Transportation and communication adds cost to the finished goods as well costs time. To gain experience, the department has requested JINFRA to prepare 'Diagnostic Study' for Industrial Corridor along Ranchi-Patratu-Ramgarh State Highway. Preliminary Diagnostic Assessment report has been prepared and Diagnostic Study is under way. After approval of Diagnostic Study Report, development of Industrial corridor shall be taken up.

Incentives under Jharkhand Export policy 2015

Objective of the policy is to facilitate the rapid and sustained growth of exports from Jharkhand and to increase its share in all India exports to two per cent by 2019. This has been envisaged to be achieved by:

- Providing an effective, proactive and supportive institutional mechanism.
- Evolving and implementing export promotional strategies.
- Building supportive infrastructural facilities like high-speed internet access, high-speed consignment movement by rail or road without hurdles.
- Marketing development assistance, R&D on global market research and testing laboratories support, creating world trade centre facility at Ranchi.

Fiscal Incentives provided are

- Exemption from Electricity Duty
- Allotment of Land for Exporting Units
- Transport Subsidy for Shipment to Ports
- Export Development Assistance (EDA)

Establishment of Mukhya Mantri Laghu and Kutir Entrepreneur Development Board

As we know, the state of Jharkhand is very rich in Handicraft. The state has a population of 3.296 cr.

with about a third of it being urban. Overall growth of the state will be slow if 70 per cent of its rural masses are ignored. Therefore, there is a need to align rural enterprises with the requirement of these people in terms of access, expertise, funds and implementation.

It is proposed to establish Mukhyamantri Laghu & Kutir Entrepreneur Development Board for development of such traditional handicraft and Lac Udyog and other Rural Cottage Industries.

Lac has huge potential to provide livelihood in rural areas. The people working in this sector shall be grouped into Lac Udyami Sahi Mandal through Jharkhand State Livelihood Promotion Society. They will be provided with training, technology, government grants and loans from financial institutions.

In addition to above mentioned various handicraft industries other rural cottage industries will be assisted for establishment and strengthening skill up-gradation, design and technological development basic infrastructure and marketing facilities etc.

Jharkhand Food Processing Industry Policy 2015 provides for financial assistance to industrial units in the processing of minor forest produce including lac. Roadshows / Industrial outreach programmes shall be organized in lac processing unit concentrated areas for attracting these industries to Jharkhand for value addition in lac in areas like Purlia etc.

Box 8.8 : Amritsar-Delhi-Kolkata Industrial Corridor

Government of India has proposed to develop Amritsar-Delhi-Kolkata Industrial corridor along Eastern Dedicated Freight Corridor. This will also be taken up under the guidelines of GOI with the approval of State Government.

Role of State Government for development of Industrial Corridor:

The State Government would be expected to:

- (a) Provide land for development of clusters;
- (b) Provide dedicated and uninterrupted, 24x7 power supply to the clusters;
- (c) Provide equity in the SPV;
- (d) Put in place a Single Window clearance mechanism;
- (e) Ensure that business regulations are simplified as envisaged in NMP;
- (f) Set up SPV with powers as envisaged;
- (g) Ensure that SPV provides for built up work spaces and low cost housing for new units and their workers in the rules for cluster.
- (h) Bear the cost of resettlement and rehabilitation package for the owners of the acquired land, if any, subsequently this expenditure could be recovered from the land allottees;
- (i) Provide all State Incentives

Incentive under Jharkhand Industrial and Investment Promotion Policy - 2016

Jharkhand is becoming the vanguard of industrialization in the Indian state. To ensure regular and mega investment, the state has been able to convince the ambassadors of industries to choose Jharkhand as preferred investment destination.

Jharkhand Industrial and Investment Promotion Policy 2016 aims to provide the best incentives, exemption and concessions for industrial units to be established in the State. The incentives are as follows and shall be disbursed to eligible units after the approval of competent authority.

- Comprehensive Project Investment Subsidy (CPIS)
- Stamp Duty & Registration Fee
- Quality Certification
- Patent Registration

- Subsidy/ Incentive on VAT
- Incentive for Cluster Development
- Incentive for Textiles and Apparels
- Incentive for Captive Power Plant
- Incentive for IT / ITES
- Incentive for Food Park
- Interest Subsidy

Mukhya Mantri Cluster Dev. Scheme

Under this scheme, the cluster approach is a key strategy for enhancing the productivity and competitiveness as well as capacity building of Micro, small enterprises including small-scale industries and small service and business entities.

These schemes are implemented by SPV (cluster of industries) for common infrastructural facilities with support of Govt. of India and Govt. of Jharkhand. This scheme also includes infrastructure

development project like power distribution network, water, telecommunication, drainage and pollution control facilities, roads, banks, raw material, storage & marketing outlets, common service facilities and technological backup services for MSEs in the new/existing industrial states/areas.

For implementation of this scheme, JIIDCO shall be nominated as the nodal agency. PMU will be formed at the JIIDCO with experts from the market and each cluster will be given to Cluster Development agencies for long-term support up to three years. The cluster development agency shall deploy one member permanently in the cluster for three years and he will work as advisor to CEO of SPV and help in development of cluster in terms of technology, market linkage, sourcing of raw material and management of SPV. For this purpose, JIIDCO will empanel Cluster development agencies.

Incentive under Jharkhand Textile, Apparel and Foot-ware Policy 2016

Government of Jharkhand aims to promote and develop a robust textile and apparel industry that provides sustainable employment to weavers and posits Jharkhand as a destination of choice to global textile majors. The policy aims to modernize textile manufacturing and improve productivity in order to ensure availability of quality fabric at affordable prices to cater to domestic and international demand. The key incentives offered in this policy include:

- Interest Subsidy @ 7 per cent per annum or 50 per cent of the interest rate per annum, whichever is lower on total loan (subject to total maximum limit of Rs 1 Crore).
- Incentive of 100 per cent NET VAT payable p.a for seven years and 40 per cent for the next three years from the date of Production with a ceiling of maximum 100 per cent of total fixed capital investment made.
- Stamp duty and Registration fee: 100 per cent reimbursement of stamp duty and transfer duty paid by the industry.
- Reimbursement of 50 per cent of power tariff for 7 years from the date of release of electricity connection.
- Assistance for construction of dormitories limited to 50 per cent cost of land up to a maximum of Rs. 50 lakh.
- One-time support of Rs. 13,000 or actual cost of training per person, whichever is lower, for capacity building of persons belonging to Jharkhand (skilled/semi-skilled) engaged in the sector (Any other category notified by the Government) as per notification of Jharkhand Skill Development Mission Society.
- Employment generation subsidy of Rs. 5,000 per month per worker for 7 years for capacity building of workers. For SC/ST/Women, this subsidy will be Rs 6,000 per month per worker for 7 years
- Reimbursement to employer up to Rs. 1000 per person per month to towards expenditure on ESI and EPF for 5 years.
- Capital Investment Subsidy at the rate of 20 per cent of investments made in fixed capital with an upper cap of Rs 50 crore.

With an objective to provide the industry with state of the art world-class infrastructure facilities for setting up their textile/ apparel units, Government of Jharkhand shall support setting up of Textile/ Apparel parks with size more than 75 acres. The Government of Jharkhand shall contribute 50 per cent of the project cost or Rs 40 crore, whichever is lower. Developer availing benefits under Government of India scheme on SITP will be given additional capital subsidy up to 10 per cent of the project cost or Rs 10 crore, whichever is lower.

Conclusion

The government of Jharkhand is fully committed to its future plans and aspires to place Jharkhand amongst the top industrial states of India. The state is having a vision of creating rapid industrialisation that will cover all the possible industrial sector extending help to MSME and women of the state. Thus, the strategies and initiatives taken by the department will lead this sector to path of development.

IX

INFRASTRUCTURE AND COMMUNICATION



Infrastructure is an important sector of economic development. It does not directly produce goods and services but facilitates the production of primary, secondary and tertiary economic activities by creating positive external economies. It is an admitted fact that the level of economic development in any country directly depends on the development of the infrastructure. To boost the other economic sectors in Jharkhand, the State government has initiated by channelizing a number of PPP projects for advancement and improvement of the existing infrastructural and communicating facilities. Also, the State Government is making efforts to catalyse the development of infrastructure and information technology in the State.

Status of Power Generation and Transmission in Jharkhand

The State Electricity Sector is dominated by fossil fuels, especially by coal or the thermal Power. Presently, 27.24 lakh consumers have access to electricity through a total number of 322 power substations of 33/11kV with a capacity of 4091.55 MVA. For the financial year 2017-18, 850MW power is needed to be generated and 3.25 lakh consumers are the estimated increase in load. To manage the increased load growth and system demand there is a need to strengthen the existing system for more reliable power supply. Further, the targets that are to be covered during the financial year 2017-18 & 2018-19 are as follows -

- For strengthening the system and augmenting the capacity, a total number of more than 1,01,001 distribution transformers with a capacity of 25 kVA, 63 kVA, 100 kVA, 200 kVA and 500 kVA are to be installed
- To facilitate the existing consumers, 171 additional power transformers are to be

added to the existing operational capacity of 33/11 kV power sub-station

- For better electricity access, a total number of 246 new 33/11 kV power sub-station along with 5, 300 km, 33 kV line and re-conductoring of 1600 kms of 33 kV existing line, new 33 kV link line -666 km, new 11 kV line -49,000 km and new LT line replacement of 45,000 km have been proposed

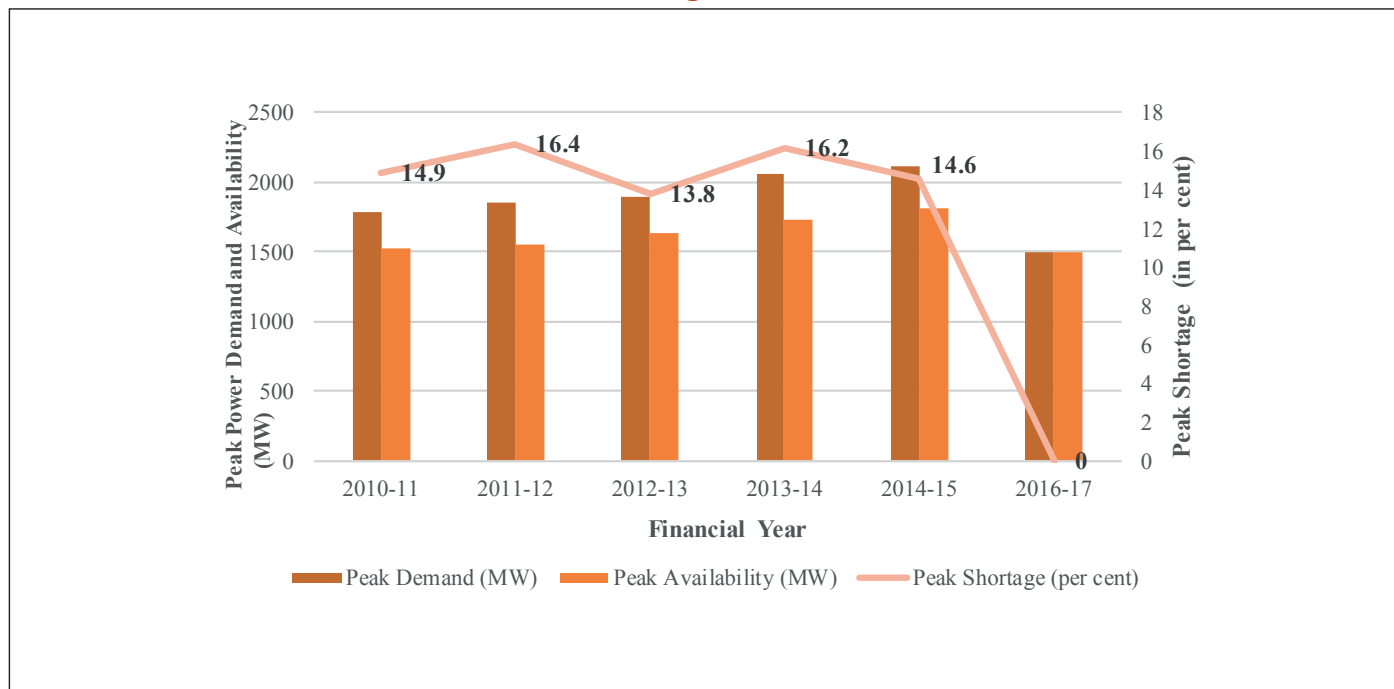
Table 9.1: Comparative Power Statistics 2009 -10 to 2016-17

| Year | Availability of Power of JBVNL (In MU) |
|---------|--|
| 2009-10 | 8653.23 |
| 2010-11 | 8762.12 |
| 2011-12 | 9557.60 |
| 2012-13 | 10437.81 |
| 2013-14 | 11208.45 |
| 2014-15 | 11499.10 |
| 2015-16 | 12379.70 |
| 2016-17 | 12489.30 |

Source: Department of Energy, Government of Jharkhand

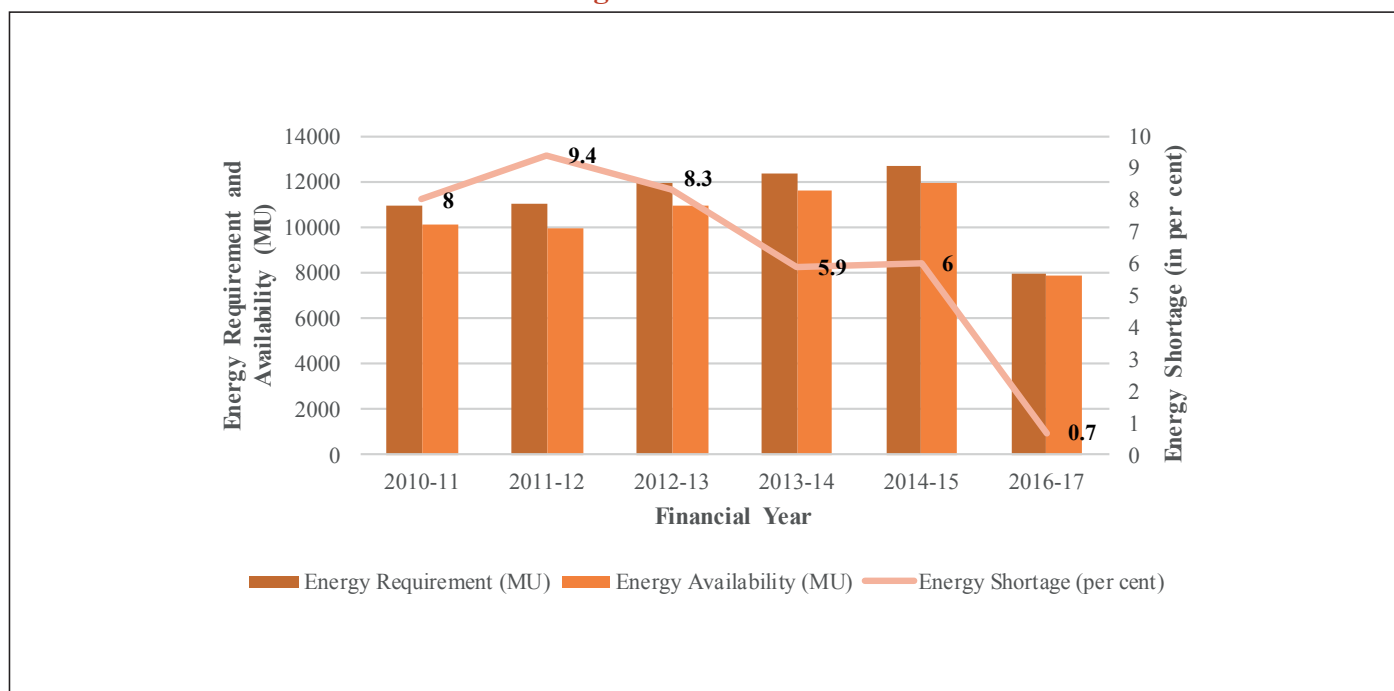
In Jharkhand, the peak demand equalled the peak availability in 2016-17, thus creating 0 per cent peak shortage in the supply of power. The highest peak shortage of 16.4 per cent was recorded in 2011-12 followed by 16.2 per cent in 2013-14. In case of energy requirement and availability in the State, over the past years, that is between 2010-11 and 2016-17, Jharkhand has seen fluctuation in the energy shortage in the State, and has recorded the least shortage of 0.7 per cent in 2016-17. The State of Jharkhand has recorded a similar proportion of energy shortage as the national average during the year 2016-17. The highest energy shortage of 9.4 per cent in the State had been recorded during 2011-12, followed by 8.3 per cent in 2012-13.

Figure 9.1: Comparison between Peak Power Demand and Supply in Jharkhand during 2010-11 to 2016-17



Source: Ministry of Power, Central Electricity Authority, New Delhi

Figure 9.2: Comparison between Energy Requirement and Availability in Jharkhand during 2010-11 and 2016-17



Source: Ministry of Power, Central Electricity Authority, New Delhi

There are various sources of power supply in the country. Coal is the sole source of thermal power in the State from State, Private and Central sectors. A total of 1898.74 MW was made available in 2017.

Besides this, 191 MW of hydropower energy and 27.32 MW of renewable energy were available as on 30.09.2017.

Table 9.2: Installed Capacity (MW) of Power Utilities in Jharkhand including Allocated Shares in Joint and Central (As On 30.09.2017)

| Mode-wise of Installed Capacity (in MW) | | | | | | | | |
|---|---------|-----|--------|---------|---------|----------------------|--|----------------|
| Ownership/ Sector | Thermal | | | | Nuclear | Hydro (Renewable) | Renewable Source Energy (MNRE)* | Grand Total |
| | Coal | Gas | Diesel | Total | | | | |
| State | 420 | 0 | 0 | 420 | 0 | 130 | 4.05 | 554.05 |
| Private | 730 | 0 | 0 | 730 | 0 | 0 | 23.27 | 753.27 |
| Central | 748.74 | 0 | 0 | 748.74 | 0 | 61 | 0 | 809.74 |
| Sub-Total | 1898.74 | 0 | 0 | 1898.74 | 0 | 191 | 27.32 | 2117.06 |

Source: Ministry of Power, Central Electricity Authority, New Delhi

*Ministry of New and Renewable Energy (MNRE)

For the financial year 2017-18, following table depicts the anticipated power supply position of Jharkhand. As the demand was expected to increase by 620 MW between 17th April 2017 to 17th March

2018, the availability was anticipated to exceed by 948 MW but rather than showing a surplus, a deficit in supply has been witnessed.

Table 9.3: Anticipated Month-wise Power Supply Position in Jharkhand for the Financial Year 2017-18

| Month | PEAK | | | | ENERGY | | | |
|-------------|----------------|----------------------|---------|----------|---------------------|----------------------|---------|----------|
| | Demand (MW) | Availability (MW) | Surplus | | Requirement (MU) | Availability (MU) | Surplus | |
| | | | MU | Per cent | | | MU | Per cent |
| 17-Apr | 1220 | 158 | -262 | -22 | 800 | 511 | -249 | -31 |
| 17-May | 1250 | 990 | -260 | -21 | 810 | 599 | -211 | -26 |
| 17-Jun | 1280 | 1018 | -262 | -21 | 815 | 579 | -236 | -29 |
| 17-Jul | 1300 | 1050 | -250 | -19 | 790 | 611 | -179 | -23 |
| 17-Aug | 1280 | 1102 | -178 | -14 | 770 | 644 | -126 | -16 |
| 17-Sep | 1280 | 1106 | -174 | -14 | 760 | 644 | -116 | -15 |
| 17-Oct | 1300 | 1047 | -253 | -19 | 800 | 616 | -184 | -23 |
| 17-Nov | 1280 | 986 | -294 | -23 | 780 | 553 | -227 | -29 |
| 17-Dec | 1250 | 911 | -339 | -27 | 800 | 554 | -246 | -31 |
| 17-Jan (18) | 1250 | 908 | -342 | -27 | 800 | 556 | -234 | -29 |
| 17-Feb (18) | 1250 | 941 | -309 | -25 | 750 | 511 | -239 | -32 |
| 17Mar (18) | 1260 | 982 | -278 | -22 | 810 | 578 | -232 | -29 |
| Annual | 1800 | 1106 | -194 | -15 | 9485 | 7005 | -2480 | -26 |

Source: Ministry of Power, Central Electricity Authority, New Delhi

Box 9.1: Thermal Power Plant at Godda District

Adani Power Limited is the power business subsidiary of Indian conglomerate Adani Group, Ahmedabad, Gujarat. The company is India's largest private power producer, with capacity of **10,440 MW**. The government of Jharkhand has provided 174.84 acre land to the Adani Power Limited for the establishment of Power Plant at Godda District. The establishment of 1600 MW Power Plant will be a blessing for the State as not only Godda District but the whole Jharkhand State will get benefitted from it. About 25% of total production, i.e, 400 MW light will be supplied to the State. The power plant is environment friendly as it is said to be pollution free. Also, this power plant will provide employment to 10,000 people and Rs. 15,000 crores are to be invested in this project.

The team Jharkhand has played a vital role in acquiring 174.84 Acre land against 970-acre land and the attainment of the remaining land is still under process. According to the wish of local *Raiyat*, acquisition of land has been taken place. Moreover, people of Godda District are excited of this project. As soon as the land gets transferred to the Adnani Group, construction of power plant will be beginning though the production will be started in the year 2021.

Karanpura Energy Limited & Development of Mourya Coal Block

Karanpura Energy Limited has planned for constructing 2x660 MW thermal power plant in Jharkhand by developing the Mourya Coal Block in Chatra. For the financial year 2017-18, certain tentative activities planned are: awarding the M/s PFCCCL (Power Finance Corporation Consulting Limited) as the consultancy for the development of the Block; Activities/Studies like Geo-physical, Geo-Technical, water and mineral availability, Energy Information Administration (EIA), EMP etc. are to be done; application filing for forest clearance to be done; mining plans to be approved; administrative expenses to be planned and exploration of land to be conducted in which the development will occur.

Transmission Line

Under the various State/Central Transmission Schemes following initiatives are to be taken in the financial year 2018-19.

- **State Transmission Scheme (Rural Electrification Corporation Loan) :** Under

this scheme, out of the 7 transmission lines which were to be constructed, 4 have been completed and 3 are yet to be completed. Those 3 transmission lines namely 220 kV D/C Daltonganj-Garhwa, 132 kV Garhwa-Japla, and 132 kV Hatia-Kanke, 132 kV D/C Hatia-Kanke transmission line is likely to be completed in March 2018 and rest 220 kV D/C Daltonganj-Garhwa and 132 kV Garhwa-Japla transmission line will be completed in 2018-19.

- **Transmission Schemes implemented through Power Grid Cooperation of India Limited (PGCIL):** Under this scheme, 10 grid sub-station (GSS) are to be constructed at Patratu, Latehar, Lohardaga, Dumka, Govindpur, Manoharpur, Mango, Madhupur and Ramchandrapur. Out of these 10, the construction of 220/132 kV at Dumka, 220/132/33 kV GSS at Chaibasa, 132/33 kV GSS at Manoharpur and 132/33 kV GSS at Madhupur, 132/33 kV GSS Mango and 132/33 kV GSS at Ramchandrapur have been completed. The construction of the rest

4 are in progress and are to be completed by 2018-19.

- **Schemes started in 2016-17:** Among the schemes started during 2016-17, orders have been issued for the construction of 132/33 kV GSS transmission lines at Bahragora, Jamua, Chandankyari and Chatra. Also, orders have been issued for the construction of 220/132/33 kV GSS at Godda and 220/132 kV GSS at Garhwa, LILK LINES for 220 kV Daltonganj -Garhwa transmission line and 132 kV Daltonganj - Daltonganj (PG) transmission line. These works will be completed in 2018-19
- **Proposed Augmentation Scheme 2016-17:** Under this, re-conducting of 132 kV Hatia—Sikidiri, Hatia - Kamdara and link line at Namkum GSS transmission line are to be done with High Temperature Low Sag (HTLS) conductors. Also installation of one no. 132/33 kV 50 MVA transformer is to be done at 132/33 kV GSS at Chitra (Deoghar). Orders have been issued and works are in progress. All these works will be completed in 2018-19.

Schemes started in 2017-18

- **Transmission schemes to be taken up with loan from World Bank-** Under this scheme construction of 132/33 kV Grid Sub-Stations at Silli, Irba, Sikaripara, Mahuadhar, Angara, Amrapara, Chakulia, Hansdiha, Jarmundi, Chainpur, Sundarnagar, Chattarpur, Ramkanda, Chowka, Kolebira, Meral, Panki, Nagaruntari, Chandwa, Kandra, Kurdeg, Sarat, Surda, Nawdiha and Narayanpur with associated transmitted lines have been taken up.

- **Transmission Projects taken up through State Govt. Loan-** Under this scheme, construction of grid sub-station at Barkagaon, Gola, Dugda, Pathardih, Mahuda, Gawan, Nirsa and Simaria with associated transmission lines have been taken up.

New Transmission schemes to be taken up in Financial Year 2018-19

- 400/220 kV G/S/S at Dhanbad is being constructed under PPP mode against Central Transmission System. For connectivity of transmission network of Jharkhand with 400/220 kV G/S/S, Dhanbad, construction of 220 kV Dhanbad-Giridih and Dhanbad-Jainamore Transmission Lines are being proposed. For strengthening of transmission system of Jharkhand, modernisation of required equipments, computerisation and modernisation of transmission offices are to be taken up. Transmission network is to be strengthened and reliable communication system is to be developed from PSDF fund (Power System Development Fund). Also re-conducting of 132 kV Chandil-Golmuri and Ramchandrapur-Adityapur Transmission line with HTLS conductor is to be done.

Electrification of Villages and Free Electricity Connection to BPL Households Sanctioned Under Rajiv Gandhi Grameen Vidhyutikaran Yojana (RGGVY)

As compared to the neighbouring States, Jharkhand has the third highest number of unelectrified villages after Bihar and Odisha. Bihar tops the list with 6882 unelectrified villages, followed by Odisha (3144) and then Jharkhand with 207 unelectrified villages. A total of 17 projects on rural electrification is operational in the State and around 11,735 villages have received proper electrification.

Table 9.4: Villages and Release of Free Electricity Connection in BPL Households Sanctioned under RGGVY (2012-2017)

| States | Number of Projects | Un-electrified Villages | Intensive Electrification of Villages | BPL Households |
|----------------|--------------------|-------------------------|---------------------------------------|----------------|
| Jharkhand | 17 | 207 | 11,735 | 4,71,972 |
| Bihar | 27 | 6,882 | 21,377 | 54,42,691 |
| West Bengal | 7 | 11 | 5,695 | 2,51,488 |
| Odisha | 31 | 3,144 | 41,018 | 16,68,454 |
| Chhattisgarh | 4 | 0 | 3,240 | 63,828 |
| Madhya Pradesh | 34 | 221 | 25,832 | 8,63,360 |

Source: Lok Sabha Unstarred Question No.2988 dated on 31.07.2014.

- Selected State-wise Target and Achievement for Electrification and Un-Electrified Villages under RGGVY in India (2013-14 and 2016-17)**

Under the RGGVY, in Jharkhand and its neighbouring states, except for West Bengal and Bihar, in all four consecutive years (2013-17), the target and the achievement for the village electrification have increased. Specifically, in the case of Jharkhand, as against the target of electrification of 2,525 villages, 750 villages were electrified in the year 2015-16, 1,104 villages in the year 2016-17, 613 villages were electrified in the year 2017-18 (upto 31/12/2017) and balance 58 villages were found uninhabited. The proportion of villages electrified against the target over the years in Jharkhand has improved (84 per cent in 2016-17). Thus, during 2013-14 and 2016-17 there has been 71 percentage point increase in the villages who have been electrified.

- State-wise Unelectrified Rural Households and Free Electricity Connection Provided to BPL Households under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) (As on 30.06.2017)**

Under the DDUGJY, as on 30.06.2017, still 32 per cent BPL households remain unelectrified in

Jharkhand. But as compared to its neighbouring states, Jharkhand has been able to achieve the 2nd position after Chhattisgarh in attaining the target of electrification of the rural households. In Chhattisgarh, none of the rural households remained un-electrified, that is, the target of electrifying all households have been achieved.

Table 9.5: State-wise Unelectrified Rural Households and Free Electricity Connection to BPL Households under DDUGJY in India (As on 30.06.2017)

| States | Un-Electrified Rural Households | Free Electricity Service Connection Provided to Rural Households Under DDUGJY |
|----------------|---------------------------------|---|
| Jharkhand | 54.00 | 32.00 |
| Bihar | 1.52 | 0.43 |
| West Bengal | 0.82 | 0.22 |
| Odisha | 0.52 | 0.28 |
| Chhattisgarh | 0.00 | 0.00 |
| Madhya Pradesh | 0.46 | 0.46 |

Source: Lok Sabha Unstarred Question No. 2024, dated on 27.07.2017

- **State-wise number of New Detailed Projects Reports (DPRs) Received and Approved by Monitoring Committee under Deen Dayal Upadhyaya Gram Jyoti Yojana (2012-2017)**

Around 48 new detailed project reports in Jharkhand were received and approved between 2012 and 2017 by the Monitoring Committee under DDUGJY. Among the neighbouring states it is the fourth in position.

Table 9.6: State-wise number of New Detailed Project Reports Received and Approved (2012-2017)

| States | Number of DPRs received from State | No. of DPRs Sanctioned by Monitoring Committee |
|----------------|------------------------------------|--|
| Jharkhand | 48 | 41 |
| Bihar | 38 | 38 |
| West Bengal | 19 | 19 |
| Odisha | 299 | 299 |
| Chhattisgarh | 877 | 877 |
| Madhya Pradesh | 172 | 172 |

Source: Lok Sabha Unstarred Question No. 2043, dated on 27.07.2017

Initiatives to be taken under Jharkhand Bijli Vitran Nigam Limited (JBVNL) during the financial year 2017-18

- **Atal Gram Jyoti Yojana**

The scheme was launched in 2015-16 and since then it has targeted to cover 50 villages under every Legislative Assembly and provide 1500 APL households and the BPL households who haven't been covered under the scheme through free electrification facility. For the financial year 2017-18, Rs. 50 crore has been allotted for this scheme and Rs. 100 crore has already been received in the financial year 2015-16 & 2016-17.

- **Tilka Manjhi Krishi Pump Yojana**

Tilka Manjhi Krishi Pump Yojana was started to encourage agricultural practices among farmers in the financial year 2015-16. Rs.16 crore has been allotted for the scheme in the financial year 2017-18 and Rs. 100 crore has already been received in the financial year 2015-16 & 2016-17.

- **Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY)**

Through this scheme, the state is trying to electrify all the unelectrified villages and hamlets of the state. For the financial year 2017-18, 33/11 kV power sub-centre, 33 kV distribution line, 11 kV distribution line and low tension (L.T) line are to be set up for better transmission of power through the transformer.

So as to improve the distribution of power in the State, there is a need to first strengthen the infrastructure of Operations and Maintenance. Keeping this in mind, in rest of the 9 districts, namely Khunti, Simdega, Saraikela-Kharsawan, Chatra, Godda, Pakur, Jamtara, Lohardaga and Latehar; Transformer Repair Workshop and Central Electricity Storage are to be set up.

- **Rural Electrification**

Under the rural electrification, a separate scheme namely *Jharkhand Samproon Bijli Acchhaadan Yojna* has been designed. It aims to strengthen the distribution system in rural areas of Jharkhand in the next two years. Under this scheme, 50 sub power stations are to be constructed, 53289 service transformers are to be set up and 9013 Circuit K.M. line are to be provided.

Box 9.2: Pradhan Mantri Sahaj Bijli Har Ghar Yojana

Pradhan Mantri Sahaj Bijli Har Ghar Yojana –“*Saubhagya*” a new scheme was launched by the Prime Minister to ensure electrification of all willing households in the country in rural as well as urban areas of the country on 25th September, 2017. The government of India aims to provide electricity for all seven days 24 hours to every household of the country till December, 2018.

Out of 54.81 lakh rural households of the Jharkhand 46 per cent houses have no electricity connection and out of 123.46 lakh rural households of the Bihar 52.41 per cent have no electricity connection. However, Rs. 16320 crores have been invested by the Government for success of this plan. In spite of that electricity connection are being deprived in more than 4 crores households of the country. Out of this, 90 per cent families are included from seven states which are U.P., Bihar, Jharkhand, Madhya Pradesh, Orissa, Rajasthan and Assam. According to the Power Ministry, 100 per cent electrification has been reached to states like Kerala, Punjab and Tamil Nadu.

- **Integrated Power Development Scheme (IPDS)**

This scheme was launched by the central government in the year 2016. Under this scheme, 40 cities of Jharkhand were selected for setting up new Power Sub Station, reconstruction and capacity strengthening of the existing Power Sub Station, installation of new service/distribution transformers, and to change the old/non-functional meters of the beneficiaries. It is targeted to be completed by 2019.

- **Restructured Accelerated Power Development and Reforms Programme (R-APDRP)**

The R-APDRP is expected to complete by 2018. 30 cities have been selected from the state for the implementation of this programme.

Initiatives taken under Jharkhand Urja Sancharan Nigam Limited (JUSNL) in the financial year 2017-18

- Under the transmission scheme, 58 substations and other related lines are to be set up. Financial support to be provided by the World Bank, State Government and other financial institutions.

It has been proposed that during the forthcoming 3 years, 400/220 K.V. GSS and other connected

lines will be established in Chandil, Kodarma and Dumka under the PPP model.

- **Rural Electrification Corporation (R.E.C) Rinposhit Rajya Scheme Sancharan Yojana-**

The state targets to complete the construction of the three transmission lines of 220 kV. Daltonganj-Garhwa, 132kV Garhwa-Japla, and 132kV. Hatia-Kanke. A total of 7 transmission lines were to set up out of which 3 are proposed to be completed by 2017-2018.

Jharkhand Renewable Energy Development Programme (JREDA)

Solar Photovoltaic Programme

Under the Solar Photovoltaic Programme, it has been proposed to distribute LED Solar Lantern, LED Solar Home Lighting System and to commission Solar Submersible Pumps at a subsidized rate.

- **Solar Lantern:** Under this scheme for the financial year 2017-18, a total number of 20000 LED-Based Solar Lantern is to be distributed to the people for which a financial outlay of Rs. 2.0 crore has been earmarked.
- **Solar Street Lighting System:** A total number of 4000 Solar Street Lighting Systems, with a technical specification of 1 x 7W LED, 40

Wp Module, 12v and 160 Wh Lithium Ferro Phosphate battery, are to be supplied/installed in government/ semi-government institutions/ organizations of the state during the financial year 2017-18, for which a financial outlay of Rs. 4.0 crore has been earmarked.

- **Solar Home System:** A total number of 1000 LED Solar Home Systems, there are two types of LED-Based Solar Home Systems namely 75 Wp Solar Home System and 150 Wp Solar Home System for operating the radio and USB port for Mobile phone charging, for which a financial outlay of Rs. 1.35 crore has been earmarked.

Solar Pump Set

A total subsidy of approximately 90 per cent (including CFA) of the cost of Solar Pump Set has been proposed to be given by the state. A total number of 2000 solar pump sets are to be supplied/ installed for the purpose of irrigation & drinking water in the state during the financial year 2017-18, for which a financial outlay of Rs. 30.87 crore has been earmarked.

Solar Thermal

Solar Hot Water System: By using solar hot water system, water can be heated from 60-80 degree Celsius, which is useful for domestic purposes, hospitals, hostels, schools, etc. The approximate installation cost of a Flat Plate Collector (FPC) type solar hot water system of 100 litres capacity is Rs. 18500/-. A subsidy (state share) of Rs. 100/- per litres of FPC type solar hot water system is given by the state and the balance cost is to be borne by the beneficiary. The total cost of the system can be recovered in three years by saving from electricity. In the financial year 2017-18, it is proposed to install 1,00,000 litres capacity in the state, for which outlay of Rs. 1.00 crore has been earmarked.

Survey & Publicity

Under this head, various programmes are held for the promotion of renewable energy sources in the State, organizing research & development programmes, expenses over third party verification of various programmes undertaken by JREDA, survey, preparation of tender documents, evaluation of tender documents, preparation of DPRs, pre-dispatch inspection of solar equipment, annual report, booklet, leaflet, printing of letter head, survey form pamphlet, folder, organizing of awareness camp & training programmes, advertisement of tender & general notice in newspapers, school level competition related to renewable energy, exhibition Van, wall writing, hoarding, bus stop shelter, Akashwani & Doordarshan, arranging of stalls in Trade Fair, etc, for which a financial outlay of Rs. 1.0 crore has been earmarked.

Grid Connected Rooftop Solar Power Plant

There is a large potential available for generating solar power using unutilized space on rooftops and wastelands around buildings. Small quantities of power generated by each Govt. building can be used to partially fulfil the requirement of the building and surplus, if any, can be fed into the grid. In grid-interactive rooftop or small Solar Photo-Voltaic (SPV) system, the DC power generated from SPV panel is converted to AC power. They generate power during the daytime which is utilized fully by powering captive loads and feeding excess power to the grid as long as the grid is available.

Electricity Consumers

Scheme for installation of grid connected rooftop solar power plants of 13.8 MWp to the electricity consumers is being continued in financial year 2017-18, for which fund is available from the budget outlay

of 2016-17. Ministry of Natural and Renewable Energy (MNRE) benchmark cost is Rs.75/- per Wp. MNRE would provide 30 per cent of MNRE benchmark cost as CFA for residential, institutional and social sectors; 20 per cent subsidy will be given by the state Government and the rest will be borne by the beneficiary under the Market mode. The state Government will provide 10 per cent state subsidy to commercial and industrial consumers of MNRE benchmark cost.

Distribution of LED-Based Solar Study Lamp for School Students

LED-based Solar Study Lamps will reduce the problems faced by students due to erratic supply of power during the peak hours. This scheme will target students of Govt. schools of class 9th, all the students of Kasturba Gandhi Balika Vidyalaya, and all the students studying in SC/ST/OBC Hostels under the Welfare Department, Govt. of Jharkhand.

These study lamps will have 1watt LED, Lithium-ion battery not less than 2.2 Ah and 2 Wp solar module. Average duty cycle will be 4 hours/day and will have a minimum of two days lighting capacity.

National Biogas Programme

Under the National Biogas Programme, installation of a total of 1000 M3 (cubic metre) capacity biogas plants of (plant size 2 M3 and above) is to be carried out at both domestic and institution level, which is proposed to cover the tribal beneficiaries as well as general beneficiaries for the financial year 2017-18. The M3 will be provided to the beneficiary at a subsidized rate of Rs. 5000/- per M3, which will be added to the balance cost and the remaining cost will be borne by the beneficiary.

Initiatives taken under Jharkhand Renewable Energy Development Agency (JREDA) in the financial year 2017-18

- State Govt. has sanctioned scheme for installation of Grid-Connected Rooftop Power Plant on 1400 nos. of Govt. buildings namely all govt. residential schools, all police stations, all civil courts, all PHC & CHC, etc. having cumulative capacity of 20 MWp. In the first phase, installation on 172 nos. of govt. buildings is under progress and likely to be completed by end of January 2018.
- Under the Net Metering Regulation, scheme of financial year 2016-17, to set up a 13.8 MWp Grid-Connected rooftop power plant on the rooftop of all the electricity consumers (individual households/firms/business houses, etc.) is being continued.
- The Government of India has proposed to provide 2000 Solar Power Water Pump for the farmers in the rural areas so as to create ease in irrigation & drinking water activities.
- 3,20,000 LED Solar Study Lamp are to be distributed for free to the students studying in government schools.
- The state will be providing 4000 solar street lights, 1000 household lights and 20,000 solar lanterns which are to be distributed/installed in the State at Subsidised Rate.
- Under the Solar Thermal Programme 1,00,000 LPD Hot Water Plants are to be installed in the state. An amount of Rs.1.00 crore has been proposed for it in the budget.
- 248 nos. of villages have been electrified through Solar PV Micro grid and Solar Stand Alone Systems under DDG (Off-grid) of DDUGJY.

Roads and Bridges

Over the past three years, in Jharkhand and its neighbouring states the number of rail over-bridges

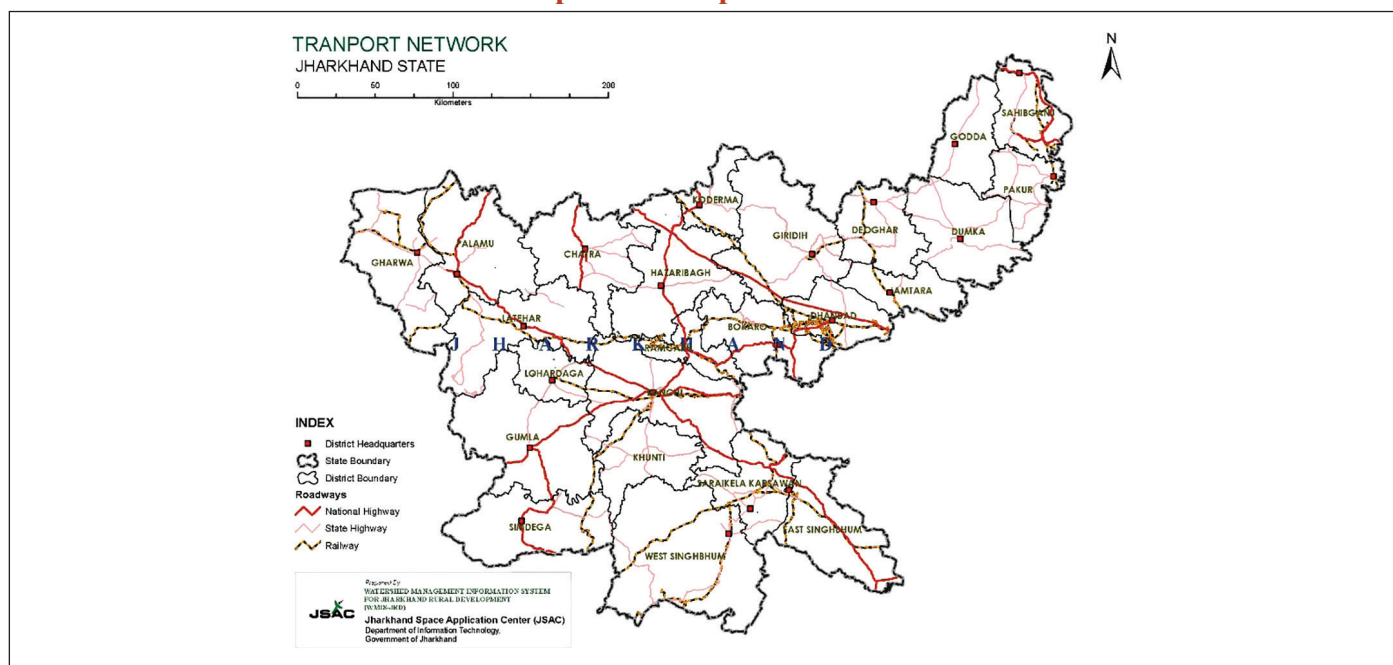
have increased. In Jharkhand, during 2013-14, 16 over-bridges were constructed followed by one in 2014-15 and then two in 2015-16. In these three years, maximum number of over-bridges have been constructed in West Bengal (76) followed by Bihar (73) and then Jharkhand (19). During 2016-17 (5) and 2017-18 (2) rail-overbridges were constructed in Jharkhand. A Total of 19 rail-overbridges have been completed after the creation of the state.

Table 9.7: State-wise sanctioned Rail-Overbridges

| States | 2013-14 | 2014-15 | 2015-16 |
|----------------|---------|---------|---------|
| Jharkhand | 16 | 1 | 10 |
| Bihar | 21 | 5 | 47 |
| West Bengal | 60 | 0 | 16 |
| Odisha | 3 | 0 | 0 |
| Chhattisgarh | 6 | 1 | 3 |
| Madhya Pradesh | 2 | 4 | 8 |

Source: Lok Sabha Starred Question No. 169, dated on 09.03.2016

Map 9.1: Transport Network



Source: Jharkhand Space Application Centre

The following is the list of the total number of National Highways passing from the state of Jharkhand. The total length of National Highways is 2649 km.

Table 9.8: Total Highways Crossing the State

| State | National Highways No. |
|-----------|--|
| Jharkhand | 2,6,20 Ext New, 23, 31, 32, 33, 43 New, 75, 78, 80, 98, 99, 100, 114A New, 133 New, 133A New, 133B, 143 New, 143A New, 220 New, 333 New, 333A New, 343 New & 419 New |

Source: Planning-cum-Finance Department, Planning Division, Government of Jharkhand

The total length of RCD roads is 11533 kms. Out of this 1231.90 kms are State Highways, 4845.70 kms are Major District Roads (MDR) and 5455 kms are other RCD roads.

Table 9.9: Present Status of Highways (NH, SH, MDR & other RCD roads)

| | |
|--------------------------------|--|
| No. of National Highways (NHs) | 2649 km |
| Total Length of RCD roads | 11533 km |
| Breakup | SH: 1231.9 km, MDR: 4845.7 km, others: 5455 km |
| NH with State Govt. | 1842 km |
| NHs transferred to NHAI | 807 km |

Source: Department of Road Construction, Government of Jharkhand

**Table 9.10: Road Construction Department
Roads in the State**

| Category of roads | Approx. length (in km) |
|----------------------|---------------------------|
| State highways | 1231.90 |
| Major district roads | 4845.70 |
| Other district roads | 5455.00 |

Source: Department of Road Construction, Government of Jharkhand

Work Plan and Future Goals 2017-18

For the financial year 2017-18, a total stretch of 1550 km road is to be constructed. Out of the total, 950 km road is to be widened and strengthened, and 600 km is to be only strengthened. It includes the proposal of construction of 50 pulls/over-bridges. It also includes the roads which have got transferred

from the Rural Development department to the Road Construction department. For easy communication between Ranchi and Dumka corridor, Dumka-Govindpur, Jamtara, Barhet, Sahibganj roads in the Jamtara and Dumka Bypass, its two lanes are getting renovated, reconstructed, strengthened and expanded. The Asian Development Bank (ADB) is providing financial support in the form of a loan. The ADB funded road Govindpur-Jamtara-Dumka-Sahebganj, 310 km, has already been dedicated to people by Hon'ble PM in 2017-18.

The state government has emphasised on creating a good road network by increasing the Road Density. The Road Density of RCD road at the state of financial year 2017-18 was 132.59 km/1000 sqkm. This has been increased to 144.70 km/1000 sqkm by adding a length of 963 km in RCD roads.

Box 9.3: Opening of Birsa Chowk Railway Over Bridge (ROB)

The Chief Minister of Jharkhand inaugurated the newly constructed Railway Over Bridge (ROB) near Birsa Chowk on Wednesday 16th November 2017. The total cost incurred in the construction of ROB was Rs. 8.75 crores. The project was completed with a 50-50 percent have been granted by the Government of Jharkhand and the Railways. The construction of this bridge which is 25 metres in length and 11 metres in breadth took two years for completion.

In the ROB, there are spaces of 7 metre for the movement of vehicles along with 1.5 metre footpath on both sides. Moreover, people are being relief from facing traffic. Now, the common people felt happy by riding their vehicles freely across the bridge.

Table 9.11: Budgetary Provision in 2017-18

| | |
|--|---------------------------------|
| Budgetary Provision | 5000 Crore |
| Expenditure till November, 2017 | 3139.68 Crore |
| % Expenditure | 62.79 per cent |
| Roads and Bridges completed in 2017-18 | 725 km and 12 nos. respectively |

Source: Planning-Cum-Finance Department, Planning Division, Government of Jharkhand

Railways

Initiatives taken by the State Government for better Railways infrastructure and facilities in the State of Jharkhand with cooperation of Ministry of Railways

Government of India.

After the creation of the Jharkhand State, a Memorandum of Understanding was signed between the State of Jharkhand and the Ministry of Railways, Government of India for the construction of the following six new railway projects:-

1. Deoghar-Dumka (60 Km)
2. Dumka-Rampurhat (64 Km)
3. Ranchi-Lohardaga-Tori (113 Km)
4. Ranchi-Barkakana-Hazaribagh-Koderma (203 Km)

The train service has started for Deoghar-Dumka

(60 Km), Dumka-Rampurhat (64 Km), Ranchi-Lohardaga-Tori (113 Km). While for Koderma-Hazaribagh-Barkakana (137 Km) train services has started and for Barkakana-Ranchi (63.34 Km) is likely to be completed by March, 2019.

5. Koderma-Giridih (111 Km)

For Koderma-Nawadih-Kawar (88 Km) the train service has started and for Kawar-Giridih (23 Km) is likely to be completed by March, 2019.

6. Koderma-Tilaiya (14 Km):-

The survey has been completed and 5 km railway track has been laid down. It is likely to be completed by March 2019.

For the Development of Santhal-Pargana region, (MoU) has been signed between the State of Jharkhand and the Ministry of Railways, for the construction of Godda-Hansdiha (32.46 Km) and Pirpainti - Jasidih new railway line (97.17 Km).

- **Godda- Hansdiha New BG Line Project (32.464 Km) :** MoU signed between Ministry of Railways and Jharkhand State. The validity of MoU is March, 2020. Estimated cost of this project is Rs. 542.18 Crore on the basis of 50 : 50 cost sharing between Ministry of Railways and Govt. of Jharkhand. State share is Rs. 271.09 Crore and Centre share is Rs. 271.09 Crore. The State Government has released fund Rs. 144.85 Crore to the Railways. The State Government has provided all the required land to the railways and this section is likely to be completed by March, 2020.
- **Pirpainti - Jasidih new railway line (97.17 Km) (Except Godda-Hansdiha) :** MoU for this new rail project has been signed between the State of Jharkhand and the Ministry of Railway, Government of India on 17.02.2017. The total estimated cost of this project is Rs. 2100 Cr. on the basis

of 50:50 cost sharing between Ministry of Railways and Govt. of Jharkhand. State share is Rs. 1050.00 Crore and Centre share is Rs. 1050.00 Crore. This project is likely to be completed in five years from the date of MoU. These rail projects will provide rail connectivity to Godda district of Santhal Pargana region with other districts of Jharkhand State.

- **New Railway projects** likely to be taken up are Namkum-Kandra (Adityapur), Giridih-Parasnath-Madhuban

Ministry of Railways, Government of India has been requested for construction of four above mentioned new rail projects on the 50: 50 cost sharing basis between Government of Jharkhand and Ministry of Railways, Government of India.

- **Alternate route construction for closed Dhanbad-Chandrapura (DC rail line):-**

After the closure of DC rail line, there is a huge demand to open up an alternate route for the movement of train services.

The Ministry of railways has been requested to construct the closed Dhanbad-Chandrapura rail line either by own fund or with the cooperation of BCCL.

- **Request for railways facilities in the Jharkhand State.**

The State Government has requested to the Ministry of Railways for Establishment of railway Zonal Office at Ranchi and creation of post of General Manager for monitoring and speedy implementation of railway projects in Jharkhand. An IRCTC office should be opened in State capital Ranchi. Apart from it, Ministry of Railways has also been requested to increase the frequency of several important train services like Rajdhani Express as well as extension of existing train route of the State of Jharkhand.

- **JCRL (Jharkhand Central Railway Limited):**

A company JCRL (Jharkhand Central Railway Limited) has been formed for speedy implementation of railway projects in coal belts of Jharkhand State with cost sharing basis among CCL, IRCON and GoJ.

Shivpur-Kathotia railway line has been taken by this company. Approval of DPR for this project is under process.

- **JVA (Joint Venture Agreement):**

For the development and extension of future rail project in the State JVA has been signed between the State Government and the Ministry of Railways on 20.01.2017 on 51 : 49 cost sharing basis.

- **Tori-Shivpur rail line (44 km):-**

This project is being constructed with 100 per cent contribution of Central Government. Jharkhand Government is providing assistance in land acquisition and law & order issues, if any. The required land has been transferred to railways and this project is likely to be completed by year 2019.

Civil Aviation

Initiatives taken in the financial year 2017-18 :-

- Govt. of Jharkhand has signed a tripartite MoU on 25.03.2017 with DRDO and AAI for development of Deoghar airport in Deoghar district of Jharkhand. The airport will be develop for the civil operations of up to A-320 category and defence operations of C-130 category aircrafts. Out of Rs. 300 crores of expected capital expenditure, Rs. 200 crores will be funded by DRDO, Rs. 50 crores by The Govt. of Jharkhand and rest 50 crores of actual cost by AAI. Further The State Govt. will form a JVA with AAI for the operation and maintenance of the airport. An

amount of Rs. 427 crores has been spent for the compensation payment for acquisition of 437.70 acres raiyati land and diversion of 18.13 acres of forest land.

- The Civil Aviation Division is responsible for maintaining the glider, motor glider and Zlin aeroplane. Gliding training is being conducted at Ranchi and Dumka.
- The department is under process to strengthen the airstrips at various places. The runway at Giridih airport is being strengthened along with the construction of Hanger, Boundary wall and VIP lounge over there. Out of an estimated cost of Rs. 6.86 crores, an amount of Rs. 2 crores has been allocated for the strengthening of runway, construction of boundary wall and drainage system at Palamu airport.
- The department is under process to start CPL flying training academy at Dumka, Jharkhand. An amount of Rs. 1.03 crores has been allocated for the fire fighting works in the newly constructed academy building, hanger and hostel building at Dumka airport.
- The Civil Aviation Department has provided all the facilities for starting scheduled airlines services under RCS from Jamshedpur airport as per the terms in the MoU signed with AAI and MoCA on 31.08.2016.
- The department is keen to operationalize the airports at Jamshedpur, Hazaribagh, Daltonganj, Bokaro and Dumka under RCS. As per the pre feasibility reports by AAI, the State Govt. is under process to expand the runway at Hazaribagh airport up to 6000 ft., Daltonganj airport up to 5200 ft. and Dumka airport up to 6000 ft.

Work Plan and Future Goals of Civil Aviation Department :-

- Starting scheduled airlines services under RCS from important cities like Bokaro, Dhanbad, Dumka and Daltonganj. This will be done by providing facilities committed as per the MoU signed.
- Development of Birsa Munda Airport, Ranchi up to international standard. This will be achieved by handing over of 303.62 acre additional land to AAI and entering into a fresh MoU.
- Development of helipads at tourist places- Rajrappa, Netarhat, Itkhor, Parasnath, Basukinath, Maluti and Shivgadidham.
- Conducting CPL training academy at Dumka. State Govt. has decided to run the academy on PPP model.
- Development of domestic airports near Jamshedpur and Dhanbad. The sites have been identified at Dhalbhumgarh near Jamshedpur and Baliapur near Dhanbad.

Building Construction

Under Building Construction, the plan and projects for the financial year 2017-18 are as follows:

New Schemes

- Construction of a new building for the Secretariat in Ranchi
- To commence the construction of Jharkhand *Bhawan* in New Delhi
- To begin the construction of Collectorate Building at Dhanbad, Giridih, Godda and Deoghar
- To begin the construction of sub-division non-residential building at Mahagama (Godda), Simariya (Chatra) and at other places
- To construct residential buildings for staff

and officers at Latehar, Garhwa, Jamtara, Khunti and in other districts of the state

- To begin the construction of *Jhalsa Bhawan* and to achieve 20 per cent of its completion
- To begin the construction of new *Sadan* in Saraikela, Sahibganj, Dhanbad, Giridih and Palamu
- To begin the construction of new sub-division judicial building both residential and non-residential

Box 9.4: New Jharkhand Building

It has been proposed to construct new Jharkhand building in New Delhi till June 2019 and in Mumbai and Puri till December 2019. However, the construction work of Jharkhand building located in Connaught Palace near Bangla Sahib Lane has been started before 26 January which will show glimpse of culture of Jharkhand. A Mandar will be constructed in front of the building. The building will have 4 VVIP rooms for the Governor, the Chief Minister, 16 suits for ministers and preferential officers, 50 rooms for MLAs, Secretaries, and rooms of others. Moreover, there will be offices and meeting rooms in the first floor of the building along with a tribal exhibition hut, gym, canteen etc.

A large number of people who have migrated to the city for work will be benefitted from this project, as they will be provided building for staying. Further, the Government is trying to complete this project within time period.

Ongoing Schemes of the Department

- To complete the 50 per cent construction of the Legislative Assembly of Jharkhand
- To complete 50 per cent and 80 per cent construction of Collectorate Building in Hazaribagh and Chaibasa respectively.

- Under the rejuvenation initiative, renovation of all the government schools/ State Girls School and District Hospital/Sadar Hospital are going on.
- Construction of Sub-Division Building at Bundu (Ranchi), Dumri, Khorimahua (Giridih), Mahuadand, Latehar, Basia (Gumla), Chainpur (Gumla) and Garhwa.
- To complete 50 per cent work of rehabilitation and re-establishment in core capital site-1, H.E.C Area.
- To complete 80 per cent construction of Jharkhand High Court buildings
- To complete the construction of judiciary buildings in Dumka and Bokaro.

Postal Services

In Jharkhand, 103 Post offices have been opened during the financial year 2014-15 and 2017-18. In 2017-18, the largest number of post offices have been opened in Palamu District (75) and then in Bokaro District (9). Over these four years, the number has increased, and the Districts/Postal Divisions covered are Jamshedpur, Hazaribagh, Ranchi, Dhanbad, Dumka and Palamu. Although the highest number of Post offices have been opened in Palamu (75), for past consecutive 3 years (2014-15 to 2016-17) post offices have been opened every year in Jamshedpur, followed by Dhanbad (in 2015-16 and 2016-17), and Ranchi (2014-15 and 2015-16). During this time period, the total number of Post Offices opened in Dhanbad District/Postal Division is 9, followed by 8 in Jamshedpur, 5 in Ranchi, 4 in Hazaribagh and 3 in Dumka.

Table 9.12 : State-wise New Post office opened in Various Districts/Postal Divisions in Rural Areas (2014-15 to 25.07.2017)

| | 2014-15 | 2015-16 | 2016-17 | 2017-18 |
|-----------------------------|--------------|--------------|--------------|-----------|
| No. of Post Office Opened | Jamshedpur-3 | Dhanbad-4 | Jamshedpur-2 | Palamu-75 |
| | Hazaribagh-3 | Ranchi-3 | Dhanbad-5 | Bokaro-9 |
| | Ranchi-2 | Jamshedpur-3 | Dumka-3 | |
| | | | Hazaribagh-1 | |
| Districts /Postal Divisions | 8 | 10 | 11 | 84 |

Source: Lok Sabha Unstarred Question No. 2962, dated on 02.08.2017

Among the neighbouring States, Jharkhand ranks the second lowest in the total number of ATMs installed at Post Offices of the state. West Bengal tops the rank with 64 ATMs, followed by 52 in Madhya Pradesh, 44 in Odisha, and 43 in Bihar. Chhattisgarh has the least number of ATMs in Post Office.

Table 9.13 : Number of ATMs installed at Post Offices as on January 2017

| States | ATMs Installed at Post Offices |
|----------------|--------------------------------|
| Jharkhand | 19 |
| Bihar | 43 |
| West Bengal | 64 |
| Odisha | 44 |
| Chhattisgarh | 14 |
| Madhya Pradesh | 52 |

Source: Lok Sabha Unstarred Question No. 1001, dated on 08.02.2017

Construction of 2 Post Office building projects has been approved for the financial year 2017-18. There is a total number of 3118 Post Offices in Jharkhand. Out of the 3118, 13 are Head Post Office, 450 Sub-Post Office and 2655 Branch Post Office. The State of Jharkhand has the least number of post offices as compared to its neighbouring states. Among the 6 states, West Bengal has the highest number of Head Post Offices and Sub-Post Offices and Bihar has the highest number of Branch Post Offices.

Out of the total number of post offices, 2846 post offices are located in rural areas and 272 post offices in urban areas. Bihar has the highest number of Post Offices in rural areas and West Bengal has the highest number of Post Offices in urban areas.

Table 9.14: State-wise number of Post Office Functioning in India (31.03.2017)

| States | Head Post Offices | Sub Post Offices | Branch Post Offices | Total |
|----------------|-------------------|------------------|---------------------|-------|
| Jharkhand | 13 | 450 | 2655 | 3118 |
| Bihar | 32 | 1026 | 7989 | 9047 |
| West Bengal | 45 | 1673 | 7046 | 8764 |
| Odisha | 35 | 1169 | 6971 | 8175 |
| Chhattisgarh | 11 | 339 | 2815 | 3164 |
| Madhya Pradesh | 43 | 978 | 7258 | 8279 |

Source: Lok Sabha Unstarred Question No. 1642, dated on 26.07.2017

Table 9.15: Number of Post Office in Rural and Urban Areas

| States | Rural | Urban | Total |
|----------------|-------|-------|-------|
| Jharkhand | 2846 | 272 | 3118 |
| Bihar | 8590 | 457 | 9047 |
| West Bengal | 7497 | 1267 | 8764 |
| Odisha | 7578 | 597 | 8175 |
| Chhattisgarh | 2890 | 274 | 3164 |
| Madhya Pradesh | 7469 | 810 | 8279 |

Source: Lok Sabha Unstarred Question No. 2962, dated on 02.08.2017

A target has been set to open a total number of 8 Post offices in the State of Jharkhand, 4 as branch post office and 4 as Sub-Post Offices. Among the 6 States, the highest numbers of Post Offices are to be opened in Madhya Pradesh.

Along with the existing Passport Seva Kendras, in Jharkhand, three new Post Office Passport Seva Kendras have been proposed in Phase-II for the financial year 2017-18. The places in which the Kendras are to be opened are Bokaro, Hazaribagh and Medninagar (Daltonganj).

Information and Technology

The Information and e-governance department has digitized the *Pragya Kendra*, made video conferencing possible in jail, created ease in processing the judgement in the court, digitization of food godowns, PDS shops, *e-nagrik* and e-district, etc. have been undertaken. The following are certain initiatives taken in the past few years:

- The *e-Nagrik* portal has created a platform for providing information to people related to death and birth certificate, salary certificate, residential address proof, easy access to *Pragya Kendras* in various panchayats, etc. With the help of these *Pragya Kendras* people are provided various banking and e-governance facilities.

Table 9.16: Targets of opening Branch Post Offices

| States | No. of Branch Post Office | Number of Sub Post Office |
|---|---------------------------|---------------------------|
| Jharkhand | 4 | 4 |
| Bihar | 4 | 3 |
| West Bengal (including Sikkim, Andaman Nicobar Islands) | 5 | 4 |

| States | No. of Branch Post Office | Number of Sub Post Office |
|----------------|---------------------------|---------------------------|
| Odisha | 6 | 4 |
| Chhattisgarh | 4 | 3 |
| Madhya Pradesh | 6 | 5 |

Source: Lok Sabha Unstarred Question No. 1642, dated on 26.07.2017.

- By creating the video conferencing facility in all the district courts and jails of Jharkhand, now the accused don't have to travel to the courts as the hearing can be done in the jail itself.
- Through the e-procurement portal, the bidders from all over the world can bid for the tender online.
- All the treasury and sub-treasuries have been computerized by the state. All the data from treasury office are sent to State data centre of the office. Even the government officials can easily access their provident fund account online.

- CCTV has been set-up in all the district and subdivision offices of the state. With the help of *e-mulakat* portal, a window has been created for easy communication between the accused and their family or other visitors.
- Jharkhand Space Application Centre (JSAC) has been able to keep a track on the land, *khatiyas*, city map and digitalized them for online access. Through this JSAC is now able to monitor the cropping and productivity pattern in the state.

Common Service Centres (CSCs) scheme is a one of the mission mode projects under the Digital India Programme. A total of 4423 Gram Panchayats have been covered with registered CSCs in Jharkhand. 7445 CSCs have been registered at GP level and 5295 CSCs are functional at GP level. Among the six States, in Bihar, the highest number of CSCs registered and functional at GP level as on 30.06.2017. It is followed by West Bengal (13584), Madhya Pradesh (13175). Except for Madhya Pradesh all the other states have been able to cover all the GPs for CSCs registration.

Table 9.17: State-wise Common Service Centre (CSC) roll-out at Gram Panchayats (GPs) (as on 30.06.2017)

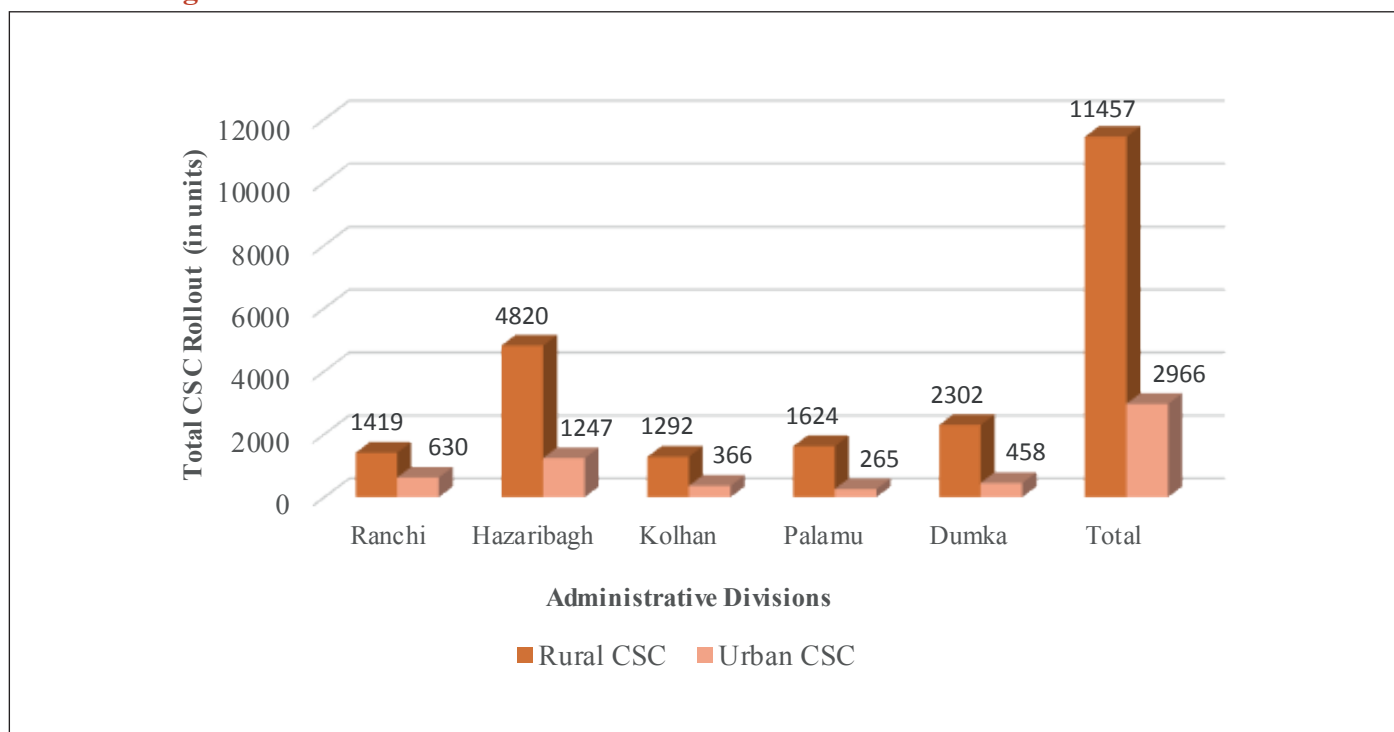
| State | No. of GPs | No. of CSCs registered including GPs | No. of CSCs registered at GP Level | No. of GPs covered with registered CSC | Total no. of Functional CSCs including GP | Total no. of Functional CSCs at GP Level |
|----------------|------------|--------------------------------------|------------------------------------|--|---|--|
| Jharkhand | 4423 | 9799 | 7445 | 4423 | 9014 | 5295 |
| Bihar | 8463 | 22380 | 17541 | 8463 | 19090 | 11960 |
| West Bengal | 3351 | 17527 | 13584 | 3351 | 15653 | 6330 |
| Odisha | 6234 | 8651 | 6832 | 6234 | 6545 | 5599 |
| Chhattisgarh | 17 | 112 | 29 | 17 | 65 | 21 |
| Madhya Pradesh | 23012 | 19446 | 13175 | 13175 | 16194 | 11873 |

Source: Lok Sabha Unstarred Question No. 618, dated on 19.07.2017.

The following figure depicts the distribution of Common Service Centre (CSC) at rural and urban areas in all the five administrative divisions. As on 31.10.2017, 11457 CSCs roll-outs have been done at rural areas and 2966 CSCs roll-outs at urban areas of Jharkhand. Among the five divisions, the highest

number of CSCs roll-out has been conducted in North Chhotanagpur division headquarters in Hazaribagh (4820) and the lowest in Kolhan division (1292). Similarly, the status of highest number of urban roll-out has been at Hazaribagh again (1247) and the lowest at Palamu division (365).

Figure 9.3: Rural and Urban CSC Rollouts Status in Jharkhand as on 31.10.2017



Source: Information Technology Department, Government of Jharkhand

National Optical Fibre Network (NOFN) is a project initiated in 2011 and funded by Universal Service Obligation Fund to provide broadband connectivity to over two lakh (200,000) Gram panchayats of India at an initial cost of ₹20,000 crore (\$3 billion). In Jharkhand, eight districts (Bokaro, Ramgarh, Kodarma, Hazaribagh, Sahibganj, Ranchi and Deoghar) have been covered under it. For the financial year 2017-18, a total of 1417 Gram

Panchayats (GP) have been planned to be covered under it. The highest number GPs planned are from Ranchi District (301) out of which 293 GP Bhawan are available. A total of 1324 Optical Fibre Cable (OFC) have been layered in the GPs of these districts and 120 OFCs are still in progress. The laying of the maximum number of OFC has been completed in the GPs of Ranchi District (292) followed by Bokaro (245).

Table 9.18: CSC Projects in Jharkhand

| Particulars | 2015-16 | 2016-2017 | 2017-2018 |
|---------------------------------|-------------------------|---------------------|----------------------|
| CSC Roll Out | 4562 | - | 14423 |
| CSC e-Wallet | 3690 | - | 14423 |
| CSC Functional | 3276 | - | 10782 |
| Banking Service | 1435 CSCs | 326 CSCs | - |
| Permanent EnrolmentCentres | 552 CSCs | 24,88,191 CSCs | 28,99,212 CSCs |
| Aadhar Enrolment through PECs | 28 Lacs | 733 Lacs | 772 Lacs |
| RAP VLE (For Insurance License) | 102 VLEs | - | 548 VLEs |
| Education | 110 VLEs working | 876 VLEs | 2038 VLEs |
| IRCTC Ticket Booking | 320 VLEs (2600 tickets) | - | 2000 VLEs |
| Telemedicine | 76 VLEs doing | - | 200 VLEs |
| Workshops Organized | 18 Big + 10 Small | - | 27 |
| DISHA | 15000 Registration | 902477 Registration | 375768 Certification |

Source: Information Technology Department, Government of Jharkhand

Table 9.19: Status of NOFN (BharatNet Status)

| Name of district | No. of GP Planned | GP Bhawan available | No. of GP Bhawan unavailable | GP Bhawan under construction | No. of GPs where OFC laying completed | OFC work in progress |
|------------------|-------------------|---------------------|------------------------------|------------------------------|---------------------------------------|----------------------|
| Bokaro | 251 | 242 | 7 | 7 | 245 | 6 |
| Ramgarh | 194 | 191 | 3 | 3 | 182 | 3 |
| Kodarma | 254 | 244 | 13 | 13 | 213 | 10 |
| Hazaribagh | 109 | 108 | 1 | 1 | 105 | 1 |
| Sahibganj | 143 | 74 | 51 | 51 | 142 | 69 |
| Ranchi | 301 | 293 | 12 | 12 | 292 | 9 |
| Deoghar | 165 | 160 | 6 | 6 | 143 | 22 |
| Total | 1417 | 1312 | 93 | 93 | 1324 | 120 |

Source: Information Technology Department, Government of Jharkhand

The 323 villages with population above 5000 have been covered under the Cellular Mobile Services and 41 villages are yet to be covered for the financial year 2017-18. 886 villages have also been covered under the 3G Base Transceiver Services (BTS) services.

Payment Gateway had been launched by Department of Information Technology, Government of Jharkhand with the help of National Database Management Ltd. (NDML). NDML through the state portal on behalf of the information technology department is providing a common gateway to

the various departments of the state to make their services easily accessible to the people. The table 9.21 depicts the transaction report of 4 departments

of the state namely Registration, Comm Tax, Transport, and Labour and Employment Department who have been integrated with the Payment Gateway Service

Table 9.20: Number of Villages Covered under Cellular Mobile Services

| States | Village above 5000 population | | | 3G BTS Total |
|----------------|-------------------------------|---------|-------------------|-----------------|
| | Total | Covered | Yet to be Covered | |
| Jharkhand | 364 | 323 | 41 | 886 |
| Bihar | 2936 | 2294 | 642 | 925 |
| West Bengal | 1890 | 1548 | 342 | 690 |
| Odisha | 210 | 210 | 0 | 1650 |
| Chhattisgarh | 90 | 79 | 11 | 511 |
| Madhya Pradesh | 614 | 537 | 77 | 1314 |

Source: Lok Sabha Unstarred Question No. 669, dated on 19.07.2017

Table 9.21: Payment Gateway Status

| Department | Live since | Month of November, 2017 | |
|----------------------------------|------------|-------------------------|------------------------------|
| | | Transaction (In nos.) | Transaction (Amt. in rupees) |
| Registration Department | 25-Sep-13 | 0 | 0 |
| Comm Tax Department | 14-Nov-13 | 0 | 0 |
| Transport Department | 14-Nov-13 | 26367 | 198677392 |
| Labour and Employment Department | 7-Sep-15 | 1550 | 2891791 |
| Mines Department | 6-Jan-17 | 1 | 93250 |
| Total | | 27,918 | 20,16,62,433 |

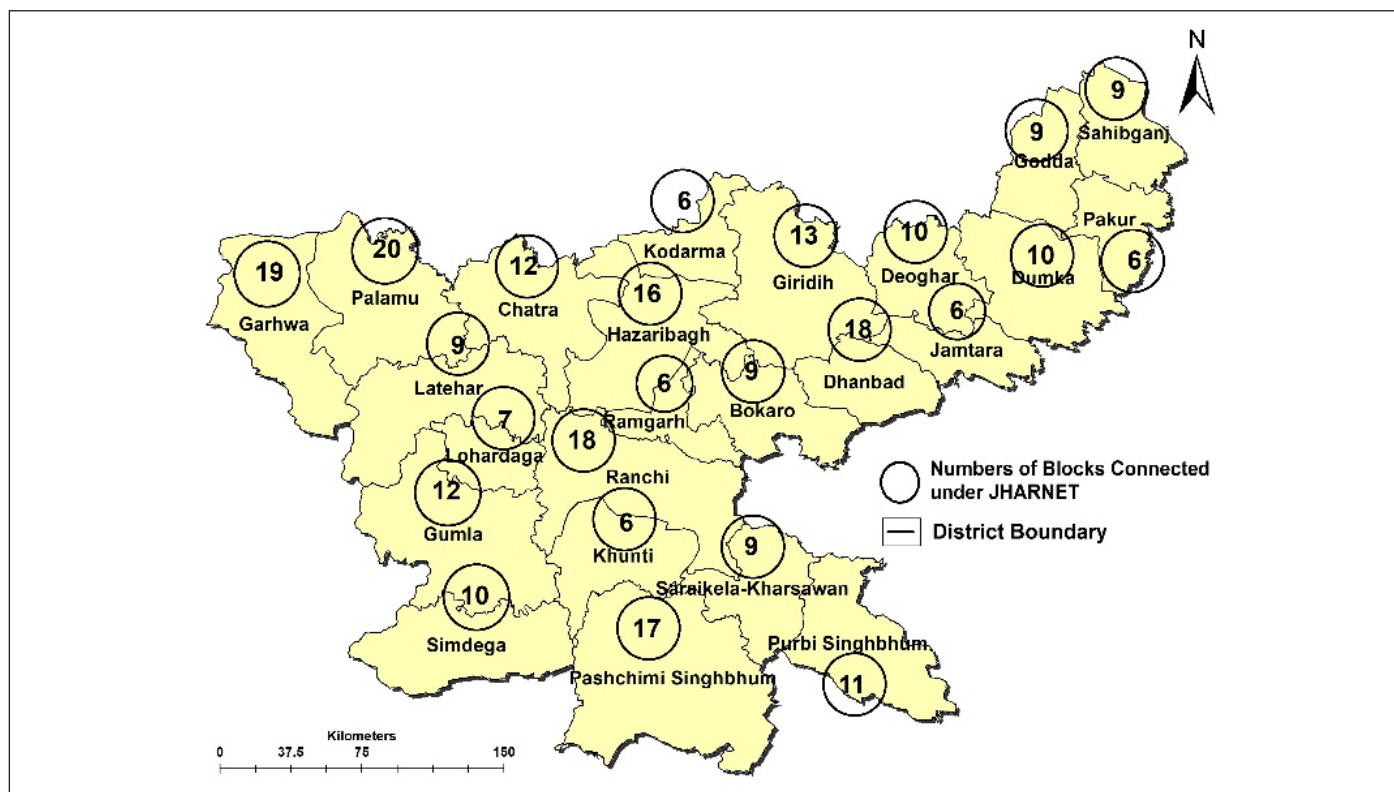
Source: Information Technology Department, Government of Jharkhand

State Wide Area Network (JharNet)

This service has been able to link state departments with their respective department at district and

block level for creating an ease in transferring and receiving data and information.

Map 9.2: Number of Blocks connected under JharNet in Jharkhand



Source: Compiled using data from department of Information and Technology, Department of Jharkhand

Work Plan for the Financial Year 2017-18

- **Maintenance of Jharkhand Agency for Promotion of Information Technology (JAPIT) Data Centre LAN and Portal and Swan-JharNet**

JAPIT plays an important role in the digitization of all the services in the state. Till date, 125 e-governance services have been provided. The modernized infrastructure, surveillance camera and, biometric service have technically been updated and modernized which has helped in achieving the onsite security, advanced requirements, and manpower in the State. An amount of Rs.130.00 lakh has been proposed for it during the financial year 2017-18.

- **e-Mulakat**

e-Mulakat is a device which will help in reducing the cost of travelling, that is, by deducting the petrol/diesel cost, toll tax and others. It also made the process more mobile, as the accused don't have

to travel to the court, the hearing can be directly conducted from the jail through video conferencing. For its effective implementation, there is a need for manpower for which an amount of Rs. 40.00 lakh has been proposed for the financial year 2017-18.

- **e-Office**

e-office is an initiative towards making the offices of the state paperless. For pilot study this has been applied in Information and Technology Department along with 4 other Departments of the state. After its successful implementation, it will be applied in the other departments, at the Secretariat and at district-level. For the financial year 2017-18, an amount of Rs.540.00 lakh has been proposed.

- **Call Centre (BPO)**

For the establishment of Call Centre (BPO), capital reimbursement and operational cost reimbursement has been proposed. The work is under process at

the department and a few companies have shown further interest in it. Around Rs. 200.00 lakh has been proposed for this project.

- **Software Technology Park**

To develop the I.T Infrastructure in the state, the State along with Government of India has planned to establish Software Technology Park at Jamshedpur, Bokaro, Deoghar and Dhanbad. The land has been acquired for it and except for the Software Technology Parks (STPI) Bokaro, for the rest of the three places, Government of India has approved for it, and the construction work in Jamshedpur and Dhanbad has already begun.

- **WAMIS (Work and Management Information Systems)**

The State Government has initially applied this system in Water Resources, Drinking Water and Sanitation Department, Rural Works, Road Construction and Forest and Environment Departments. Through this method, the state is trying to develop an end-to-end link between all the departments through computerization and also link it for e-procurement. This complete procedure is to be conducted by integrating it with Kuber Software and it will be hosted by JAP-IT data centre.

- **e-Vidhan**

In the day of digitalization and modernization, e-vidhan is a government initiative to keep a track on the changes of various government organizations, groups and individuals, to be able to share the vital information, create storage, for quick search and decision making. For this, Rs. 10 crore has been proposed in the financial year 2017-18.

- **United Data Repository (UDR)**

The Government aims to create a common repository of all the schemes/programmes of the state which will include data with a special focus. UDR will

be the basic data platform which will help the beneficiaries to avail benefits at anytime. It will also include a comprehensive reporting engine, which will be flexible in nature and user-defined.

- **I.T.I Park**

An I.T Park is said to be established for creating ease to the IT/ITES companies/firms/industries. 170.49 Acre land has been acquired in Dhurwa, H.E.C Region in Ranchi for its establishment. For the financial year 2017-18, Rs. 500.00 lakh has been proposed.

- **GIS and Remote Sensing Projects**

The state plans for a digital survey which includes GIS Mapping, Remote Sensing, Spatial Databases, and events and activities. For conducting such a survey an amount of Rs. 319.5 lakh has been proposed in the financial year 2017-18.

State e-Governance Schemes/Plans

- BharatNet:** It is a centrally sponsored scheme as it aims to provide a high-speed internet connectivity at panchayat level, so that the various government facilities through e-governance, m-governance, Health, Education, Agriculture and Tourism can be utilized by the masses residing in the rural areas of the state. The central government has planned for Digital Village as it wants to connect and facilitate every village with the information technology systems so that every individual gets updated with the new technology and modern I.T techniques.

To understand the advantages and disadvantages that this project will entail, a pilot digital project study will be conducted. For this, Kasmar Block in Bokaro district has been selected and the following facilities are

to be provided:

- **e-Education**
- **e-Health**
- **Banking**
- **Skill Development**
- **e-Post**
- **e-Garantlaya**

- b) **Mukhyamantri Dashboard:** Through this scheme, the honourable Chief Minister of the state will be able to access the progress of every Department/District/ Block. It is an easy way of surveilling the status of various schemes of the state.
- c) **I.T/I.T. Related Services:** Under the GoI Make in India initiative, the state government in the area of Ease of Doing Business wants to promote IT/IT investment. Thus, for this, a policy framework needs to be planned followed by Strategy and Action Plan, Demand Assessment, Roadshow and Marketing.
- d) **Cyber Security:** It is a state government initiative. It plays an important role in providing security to the computers operational in the government departments and online portals of the state government against any malware/virus. An amount of Rs. 2000.00 lakh has been proposed in the financial year 2017-18.
- e) **Incubation/Innovation Centre:** It has been planned that in different engineering colleges

and universities of the state a total number of 5 Incubation Centres will be established and in Ranchi City, an Innovation Centre will be established.

- f) **Wi-Fi Hotspot Left Wing Extremism Affected Areas:** So as to connect the Naxal affected areas with the other parts of the State, 82 sites have been considered to construct WiFi Hotspots and establish network connections. Bharat Sanchar Nigam Limited (B.S.N.L) holds the responsibility of setting up of towers for mobile phone connectivity in these areas. Further, the state government is planning on developing these as high-speed internet connectivity areas so that the village commoners could get benefited from it.

Conclusion

Infrastructure is the most critical component to ensure growth. The quality and extensiveness of the infrastructure significantly impact the economic growth and income inequality existing in the economy in a variety of ways. The Government of Jharkhand, in recent years, has made efforts for some effective improvement in the field of connectivity, and also in the field of digitalization and communication. The state government is committed to improve the stature of the new and ongoing projects and programmes in the state. The central and state government together have initiated for better infrastructure and communication facilities in the State, and thus have been able to improve the living standards of the people of Jharkhand.

X

LABOUR AND EMPLOYMENT



One of the biggest challenges the state is facing is how to harness the benefit of the demographic dividend where a large part of the population of the state is young or in working age group. The government of Jharkhand is tirelessly trying to use this opportunity for the development of the state.

The state government runs various schemes and programs for the employment generation, for instance, recruitment camps and employment fairs, implementation of Prime Minister Stand-up India Scheme, Prime Minister Mudra Scheme, Prime Minister Life Insurance Scheme, India Reserve Scheduled Caste Battalion, Sakhi Mandali, Johar Yojna, etc. Furthermore, the focus of the government is not only on the quantity of employment but also on the quality of employment. Various labour laws and schemes are operationalised by the government

for both organised and unorganised workers. The government is also concentrating on the reduction of child labour in the state.

Labour Force Participation Rate (LFPR) across Gender and Sector

Labour force is defined as persons who are working/employed or seeking/available for work. The LFPR of India and Jharkhand is given in Table 10.1. Around 52.4 per cent of the population comprised of the labour force in India as of 2015-16, out of which, 55.8 per cent resides in the rural and 43.7 per cent in urban India. There is a huge gap between male and female labour force participation rate in India. The LFPR among females is higher in rural India than its counterpart, while there is a marginal difference in the LFPR between rural and urban male.

Table 10.1: Labour Force Participation Rate (UP+SS) for Persons aged 15 Years and above in India and Jharkhand (2015-16) (%)

| India/State | Rural | | | Urban | | | Total | | |
|-------------|-------|--------|-------|-------|--------|-------|-------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| India | 78 | 31.7 | 55.8 | 69.1 | 16.6 | 43.7 | 75.5 | 27.4 | 52.4 |
| Jharkhand | 84.4 | 59.2 | 72.7 | 73.2 | 14.9 | 45.6 | 82.0 | 49.0 | 66.6 |

Source: Fifth Annual Employment-Unemployment Survey, Labour Bureau, Ministry of Labour and Employment, Government of India, 2015-16

The LFPR in Jharkhand was 66.6 per cent in 2015-16 which is higher than the national average. The male and female gap in LFPR was high in Jharkhand. In 2015-16, the LFPR for rural Jharkhand was 72.7 per cent, while the corresponding figure for the urban area was 45.6 per cent.

Worker Population Ratio

Worker Population Ratio (WPR) is defined as the number of persons employed per 1000 persons. The status of work population ratio in India and Jharkhand is given in Table 10.2.

Table 10.2: Work Population Ratio (WPR) (PS+SS) Persons aged 15 years and above in India and Jharkhand (2015-16) (%)

| Work Population Ratio | Rural | | | Urban | | | Total | | |
|-----------------------|-------|--------|-------|-------|--------|-------|-------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| India | 75.7 | 30.2 | 53.9 | 67.1 | 14.8 | 41.8 | 73.3 | 25.8 | 50.5 |
| Jharkhand | 83.2 | 58.7 | 71.9 | 68.5 | 12.6 | 59.2 | 79.9 | 48.2 | 65.2 |

Source: Fifth Annual Employment-Unemployment Survey, Labour Bureau, Ministry of Labour and Employment, Government of India, 2015-16

During 2015-16, the work population ratio in India was 50.5 per cent. In rural India, the work population ratio was around 54 per cent while in urban India, it was around 42 per cent. The gap between rural and urban India is quite high. Similarly, the gap between male and female work population ratio is also high in both rural and urban India. The work population ratio in Jharkhand is higher than the national average. Jharkhand is also leading in work population ratio in both urban and rural areas compared to the national average. In rural Jharkhand, the female work population ratio is 59 per cent while in rural India; it was only 30 per cent. In case of urban area, the female work population ratio is marginally low in urban Jharkhand than the urban India. All over female work population ratio in Jharkhand is higher than the national average that is a remarkable feature for the state.

Category of Employment

The National Sample Survey Organization (NSSO) categorizes the households as- self-employed, casual wage based, and regularly salaried. In 2011-12, out of total employed workers in rural India, 56 per cent were self-employed, around 9 per cent were regular

wage/salaried employees, and 35 per cent were casual labours while the equivalent figure for the rural Jharkhand was 69 per cent, 4 per cent and 27.3 per cent respectively. In rural Jharkhand, among all female workers, 83 per cent were self-employed, and 14.6 per cent were casual workers while only 2.5 regular wage/salaried employees which is lower than the national average. In rural Jharkhand, the percentage of the self-employed male is higher than the national average, while the percentage of regular wage employees and casual labourers are less than the national average. In urban India, out of total workers, 42 per cent were self-employed, 43 per cent were salaried employees, and around 15 per cent were casual labourers. The corresponding figure for Jharkhand is 44 per cent, 38 per cent and 18.3 per cent respectively. In urban Jharkhand, 45 per cent males were self-employed whereas the corresponding figure for the females was 33 per cent. Jharkhand represents a striking picture in the case of urban females, where 45 per cent females were salaried employees which is higher than the males and the national average as well. Around 21 per cent female workers in urban Jharkhand were casual labourers that is more than its counterpart, but less than the national average (Table 10.3).

Table 10.3: Category of Employment by Usual Status (PS+SS) in India and Jharkhand (2011-12) (%)

| Category of Employment | Self-employed | Regular wage/Salaried Employees | Casual Labour |
|------------------------|---------------|---------------------------------|---------------|
| Rural India | 55.9 | 8.8 | 35.3 |
| Male | 54.5 | 10 | 35.5 |
| Female | 59.3 | 5.6 | 35.1 |
| Rural Jharkhand | 68.6 | 4.3 | 27.3 |
| Male | 63.6 | 4.7 | 31.7 |
| Female | 82.8 | 2.5 | 14.6 |
| Urban India | 42 | 43.4 | 14.6 |
| Male | 41.7 | 43.4 | 14.9 |
| Female | 42.8 | 42.8 | 14.3 |
| Urban Jharkhand | 43.7 | 38 | 18.3 |
| Male | 45 | 37.1 | 17.7 |
| Female | 33.3 | 45.5 | 21.2 |

Source: National Sample Survey 68th round, Employment and Unemployment in India, 2011-12

Therefore, along with increasing employment, it is equally important to increase employment in the formal sector which has the benefits of job and social

security. Table 10.4 looks at the distribution of self-employment in agricultural and non-agricultural activities.

Table 10.4: Self-employment in agriculture and non-agriculture sector (2011-12) (%)

| India/State | Agriculture | Non-agriculture | Total |
|-------------|-------------|-----------------|-------|
| India | 34.3 | 15.5 | 49.8 |
| Jharkhand | 43 | 16.1 | 59.1 |

Source: National Sample Survey 68th round, Employment and Unemployment in India, 2011-12

Table 10.4 shows that agriculture sector provides more self-employment than the non-agriculture, at both state and national level. The Indian households self-employed in agriculture are 34.3 per cent and in non-agriculture is 15.5 per cent. Self-employment among households in Jharkhand in agriculture is 43 per cent, while in non-agriculture it is 16.1 per cent. Thus, more households in Jharkhand are self-employed in agriculture compared to the national level. Also, self-employment in non-agricultural activities is higher in Jharkhand than nation-wide. Therefore, the overall self-employment in Jharkhand is higher at 59.1 per cent than the Indian households at 49.8 per cent. Jharkhand is higher than the overall national level in providing self-employment in both agriculture and non-agriculture sectors.

The above-discussed data has two implications: Firstly, as self-employed are less stable and with fewer social benefits, Jharkhand government needs to ensure increasing formal employment. Secondly, as growth is to be achieved, there should be lesser

workforce involved in agricultural activities. However, it is important to be careful about people's education and skills before shifting them to non-agricultural activities.

Table 10.5 shows the employment status of main, marginal and non-workers in India and Jharkhand. Main workers are defined as all those workers who were engaged in any economically productive activity for 183 days or more during the last year. The percentage of main workers was 30 per cent in India, while in Jharkhand it was 21 per cent. There is a minimal gap between the main worker in rural and urban areas in India, while in the case of Jharkhand this margin is high. Marginal workers are defined as those who worked for less than 183 days or less than six months. The percentage of marginal workers in Jharkhand is as high as 19 per cent, while in the rural areas it was 24 per cent, which is higher than the national average. In urban Jharkhand, around 71 per cent population is non-workers.

Table 10.5: Main, Marginal and Non-Workers in India and Jharkhand (2011) (%)

| Employment Status | | Main Workers | Marginal Workers | Non-workers |
|-------------------|-------|--------------|------------------|-------------|
| India | Total | 30 | 10 | 60 |
| | Rural | 29 | 12 | 58 |
| | Urban | 31 | 4 | 65 |
| Jharkhand | Total | 21 | 19 | 60 |
| | Rural | 20 | 24 | 57 |
| | Urban | 24 | 5 | 71 |

Source: Census of India, 2011

The district wise work status is shown in Table 10.6. There is a large variation in data of the main workers across the districts of Jharkhand. It is highest in Khunti (29 per cent) and the lowest in Garhwa (13 per cent) district. Apart from this, percentage of the

main worker is also high in Sahibganj (28 per cent) and Pakur (28 per cent) district of Jharkhand. The distribution of marginal workers is the highest in Garhwa district of the state, which is 30 per cent and the lowest in the Ramgarh district (10 per cent).

Table 10.6: District-wise Main, Marginal and Non-Workers in Jharkhand (2011) (%)

| District | Main Workers | Marginal Workers | Non-workers |
|---------------------|--------------|------------------|-------------|
| Garhwa | 13 | 30 | 57 |
| Chatra | 19 | 19 | 62 |
| Koderma | 20 | 16 | 64 |
| Giridih | 17 | 25 | 58 |
| Deoghar | 20 | 17 | 63 |
| Godda | 18 | 24 | 58 |
| Sahibganj | 28 | 15 | 57 |
| Pakur | 28 | 17 | 55 |
| Dhanbad | 20 | 11 | 69 |
| Bokaro | 18 | 15 | 67 |
| Lohardaga | 22 | 26 | 52 |
| Purbi Singhbhum | 23 | 13 | 64 |
| Palamu | 15 | 22 | 63 |
| Latehar | 16 | 27 | 57 |
| Hazaribagh | 19 | 19 | 62 |
| Ramgarh | 23 | 10 | 67 |
| Dumka | 18 | 29 | 53 |
| Jamtara | 15 | 26 | 59 |
| Ranchi | 26 | 13 | 61 |
| Khunti | 29 | 20 | 51 |
| Gumla | 27 | 20 | 52 |
| Simdega | 26 | 22 | 52 |
| Pashchimi Singhbhum | 23 | 23 | 54 |
| Saraikela-Kharsawan | 21 | 19 | 60 |

Source: Census of India, 2011

The wage-based casual labourers in agriculture in Jharkhand are lesser than the national average. In India, 21 per cent households are wage-based in agriculture, while only 4.2 per cent are wage-based in agriculture in Jharkhand. The non-agricultural wage based labourers in Jharkhand is 26.2 per cent,

while only 13.5 per cent Indian households are non-agricultural wage based. Thus, more people work on wage basis at the state level than at the central level in non-agriculture sector. Also, there are less wage-based earners in Jharkhand which is 30.3 per cent against India's 34.5 per cent.

Table 10.7: Wage based Causal labourers in agriculture and non-agriculture sector (rural) (2011-2012) (%)

| India/State | Agriculture | Non-agriculture | Total |
|-------------|-------------|-----------------|-------|
| India | 21 | 13.5 | 34.5 |
| Jharkhand | 4.2 | 26.2 | 30.3 |

Source: National Sample Survey 68th round, Employment and Unemployment in India, 2011-12

Status of Informal Workers

During 2011-12, around 72 per cent workers were employed in the informal sector in India, and the proportion was 75 in rural areas and around 69 per cent in urban areas. The corresponding figure for Jharkhand was around 70 per cent, and the proportion in rural and urban Jharkhand was around 74 per cent and 62 per cent respectively. Urban and rural India presents a different picture. For instance, in the rural area, the proportion of female workers in the informal sector was 73 per cent while the equivalent figure for the male was 76 per cent. In the case of urban

India, the proportion of female workers employed in the informal sector was around 53 per cent while the corresponding figure for the male was around 70 per cent. Gender difference in employment in the informal sectors presents a different picture in Jharkhand compared to the national scenario. For instance, in rural Jharkhand, around 78 per cent female was employed in the informal sector which is higher than the male in Jharkhand and both males and females of the national figure. In the urban area of Jharkhand, the proportion of female employees in the informal sector is higher than the males.

Table 10.8: Distribution of Informal Workers in Urban and Rural Areas of India and Jharkhand (2011-12) (%)

| Informal Workers | Percentage |
|------------------------|-------------|
| India Rural | 75.2 |
| Male | 76 |
| Female | 72.7 |
| Jharkhand Rural | 73.9 |
| Male | 73 |
| Female | 77.9 |
| India Urban | 69.1 |
| Male | 70.4 |
| Female | 53 |
| Jharkhand Urban | 61.6 |
| Male | 62.6 |
| Female | 63.6 |
| All India | 72.4 |
| Male | 73.4 |
| Female | 69.2 |
| All Jharkhand | 69.7 |
| Male | 69.7 |
| Female | 70 |

Source: National Sample Survey 68th round, Informal Sector and Conditions of Employment in India, 2011-12

Table 10.9: District-wise Distribution of Informal Workers in Jharkhand

| District | Unorganised Workers (2016-17) | Unorganised Workers (2017-18) | Growth Rate (%) |
|---------------------|-------------------------------|-------------------------------|-----------------|
| Ranchi | 8365 | 17053 | 104 |
| Lohardaga | 2569 | 11167 | 335 |
| Khunti | 5901 | 6934 | 18 |
| Gumla | 3845 | 13004 | 238 |
| Simdega | 3431 | 11119 | 224 |
| Dhanbad | 22955 | 25349 | 10 |
| Bokaro | 10337 | 22724 | 120 |
| Palamu | 8073 | 17746 | 120 |
| Latehar | 1804 | 5869 | 225 |
| Garhwa | 3201 | 14296 | 347 |
| Purbi Singhbhum | 25278 | 35923 | 42 |
| Saraikela-Kharsawan | 8959 | 22354 | 150 |
| Pashchimi Singhbhum | 18295 | 12557 | -31 |
| Hazaribagh | 18947 | 14008 | -26 |
| Koderama | 8599 | 8129 | -5 |
| Chatara | 5058 | 15191 | 200 |
| Ramgarh | 4995 | 9474 | 90 |
| Giridih | 12655 | 15461 | 22 |
| Dumaka | 12269 | 20027 | 63 |
| Godda | 22630 | 12272 | -46 |
| Deoghar | 13120 | 35508 | 171 |
| Jamtata | 4392 | 5668 | 29 |
| Sahebganj | 8439 | 16595 | 97 |
| Pakur | 2713 | 8456 | 212 |
| Jharkhand | 236830 | 376884 | 59 |

Source: Department of Labour, Employment and Training, Government of Jharkhand

Table 10.9 shows that the total number of informal workers has increased from 236830 in 2016-17 to 376884 in 2017-18. In one year 140054 informal workers have increased so far. The number of informal workers is highest in Purbi Singhbhum district of Jharkhand followed by Deoghar and Dhanbad district. It is the lowest in Jamtara followed by Latehar district. Between 2016 and 2018, the highest growth in the informal workers was observed in Garhwa district followed by Lohardaga. The lowest growth has been observed in Godda and Pashchimi Singhbhum district of Jharkhand.

Distribution of Industrial Workers among Different Industries

Distribution of industrial workers among different industries in India and Jharkhand has been given in Table 10.10. The share of informal sector workers was the highest in the wholesale and retail trade, repair of motor vehicles and motorcycles and agriculture sector excluding growing crops in India. In Jharkhand, most of the workers were engaged in the arts, entertainment and recreation, and real estate activities. The share of informal sector workers was distinctively low in the electricity, gas, steam and air conditioning supply in India whereas in the case of Jharkhand it was the lowest in the financial and insurance activities. In case of urban India, the share of informal workers was the lowest in mining and quarrying, and it was the highest in the wholesale and retail trade, repair of motor vehicles and motorcycles. In urban Jharkhand, the share of informal workers was distinctively low in the mining and quarrying sector, while it was high in real estate, and arts, entertainment and recreation. The share of informal sector workers was the lowest in the education sector in India, while equivalent sector for the rural Jharkhand was in the professional, scientific and technical activities.

Table 10.10: Distribution of Industrial Workers among Different Industries (PS+SS) in India and Jharkhand (2011-12) (%)

| Different Industries | India | | | Jharkhand | | |
|---|-------|-------|-------|-----------|-------|-------|
| | | Rural | Urban | | Rural | Urban |
| AGEGC | 92.3 | 92.4 | 92 | 78.5 | 77 | 95.7 |
| Mining and Quarrying | 54.5 | 68 | 7 | 4 | 2.1 | 5.4 |
| Manufacturing | 80.6 | 85.3 | 75.9 | 77.7 | 83.6 | 59.7 |
| Electricity, gas, steam and air conditioning supply | 11.6 | 10.4 | 12.2 | 43.3 | 40.4 | 47.7 |
| water supply; sewerage, waste management and remediation activities | 60.4 | 45.9 | 66 | 83.6 | 88.5 | 41.4 |
| Construction | 68.4 | 65.4 | 78.2 | 69.9 | 69.4 | 73.1 |
| Wholesale and retail trade; repair of motor vehicles and motorcycles | 94.3 | 95.1 | 93.6 | 96 | 97.2 | 94.5 |
| Transportation and storage | 79 | 83.8 | 73.8 | 73.4 | 81.1 | 65.6 |
| Accommodation and Food service activities | 91.7 | 91.5 | 91.8 | 90.2 | 100 | 79.7 |
| Information and communication | 36.4 | 54.8 | 33.7 | 84 | 95.9 | 80.9 |
| Financial and insurance activities | 28.5 | 36 | 25.7 | 2.47 | 1.3 | 31.1 |
| Real estate activities | 89.7 | 95.3 | 87.7 | 100 | 100 | 100 |
| Professional, scientific and technical activities | 70.4 | 74.1 | 69.3 | 30.3 | 0 | 30.7 |
| Administrative and support service activities | 61.6 | 63.2 | 61.1 | 33.3 | 70.2 | 20.5 |
| Education | 29.2 | 24.8 | 33.8 | 33 | 22.1 | 44.6 |
| Human health and social work activities | 51.4 | 47.6 | 53.7 | 57.3 | 49.1 | 63.9 |
| Arts, entertainment and recreation | 77.8 | 84.7 | 73.1 | 100 | 100 | 100 |
| Other Service activities | 87.2 | 90.2 | 83.9 | 79.3 | 84.6 | 71.4 |
| Non-agriculture (B-U) | 71 | 73 | 68.7 | 69.4 | 73.7 | 61.3 |
| Agriculture sector excluding growing of crops (AGEGC) & Non-agriculture | 72.4 | 75.2 | 69.1 | 69.7 | 73.9 | 61.6 |

Source: National Sample Survey 68th round, Informal Sector and Conditions of Employment in India, 2011-12

Informal Workers with no written contract

During 2011-12, around 79 per cent employees in informal sector had no written contract in India, and the equivalent figure for Jharkhand was 81 per cent which is higher than the national average. The proportion of the informal workers without a written contract is the highest in rural India than its counterpart. A similar pattern had been observed for urban Jharkhand, but the gap was quite high between urban and rural Jharkhand. In rural Jharkhand, around 90 per cent workers were employed without a written contract, while the figure for the urban Jharkhand was 59 per cent. The gap between male and female is not very wide in India but the gender difference is relatively higher in Jharkhand. In rural

Jharkhand, the proportion of males without a written contract was higher than females, while in case of urban Jharkhand the proportion of females without a written contract was higher than the males.

Table 10.11: Informal Sector workers without written contract in India and Jharkhand (2011-12) (%)

| No written Contract | Male | Female | Total |
|---------------------|------|--------|-------|
| India | 79.3 | 77.1 | 78.9 |
| Rural | 85.5 | 81.2 | 84.6 |
| Urban | 72.5 | 72.2 | 72.5 |
| Jharkhand | 81.1 | 77.5 | 80.7 |
| Rural | 91.4 | 81.5 | 90.4 |
| Urban | 57 | 70.9 | 58.9 |

Source: National Sample Survey 68th round, Informal Sector and Conditions of Employment in India, 2011-12

Method of Payment for Employees in Informal Sector

Around 91 per cent informal workers were receiving a regular monthly salary in India, while 87 per cent informal workers were receiving a regular monthly salary in Jharkhand. There is also a sharp gap between the urban and rural area in the context to regular payment. In rural India, 89 per cent workers received a regular monthly salary while the

proportion is higher in the urban areas, although, the rural and urban gap is minimal in Jharkhand. The regular weekly payment is higher in rural Jharkhand compared to the national average. In reality, payment method depends upon the nature of work. The proportion of daily wage receiver is higher in rural Jharkhand than the national average. The other type of payment methods, which includes cash or kind, is high in urban areas of Jharkhand.

Table 10.12: Distribution of Usual Status (PS+SS) in AGEGC and Non-Agriculture Sectors by Method of Payment (2011-12) (%)

| Methods of payment | Regular monthly salary | Regular weekly payment | Daily payment | Piece rate payment | Others |
|--------------------|------------------------|------------------------|---------------|--------------------|--------|
| India | 91 | 4.4 | 1.8 | 1.6 | 1 |
| Rural | 88.8 | 4.8 | 2.7 | 1.6 | 1.6 |
| Urban | 92.1 | 4.2 | 1.3 | 1.6 | 0.7 |
| Jharkhand | 86.6 | 4.7 | 2.8 | 0.7 | 4 |
| Rural | 84.6 | 8.8 | 4.3 | 0.1 | 0.3 |
| Urban | 87.6 | 2.7 | 2 | 0.6 | 5.9 |

Source: National Sample Survey 68th round, Informal Sector and Conditions of Employment in India, 2011-12

Unemployment status in Jharkhand

Table 10.13 shows the unemployment rate in India and Jharkhand. Here, the unemployment rate is defined as the number of person unemployed per 1000 persons in the labour force. The unemployment rate regarding the usual status (adjusted) was 3.7 per cent, and equivalent figure for Jharkhand was 2.2 per cent. The unemployment rate among females is higher than male in urban Jharkhand, while the unemployment rate among females is lower than

the males in rural Jharkhand. In case of rural India, the unemployment rate was 3.7 per cent while in Jharkhand, it was 1.2 per cent that is lower than the national average. The unemployment rate in urban Jharkhand was 7.9 per cent, while the equivalent figure for India was 4.4 per cent. There is a large gap in the unemployment rate of males and females in urban India and Jharkhand. The urban females are more unemployed than the urban males in India and Jharkhand.

Table 10.13: Unemployment rate (PS+SS) for Persons Aged 15 Years and above in India and Jharkhand (2011-12) (%)

| India/Jharkhand | Rural | | | Urban | | | Total | | |
|-----------------|-------|--------|-------|-------|--------|-------|-------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| India | 2.9 | 4.7 | 3.4 | 3 | 10.9 | 4.4 | 3 | 5.8 | 3.7 |
| Jharkhand | 1.5 | 0.7 | 1.2 | 6.5 | 15.6 | 7.9 | 2.5 | 1.8 | 2.2 |

Source: Fifth Annual Employment-Unemployment Survey, Labour Bureau, Ministry of Labour and Employment, Government of India, 2015-16

Level of Education and Unemployment in Jharkhand

The unemployment rate among graduated people of age 15 years and above in India and Jharkhand is shown in Table 10.14. The unemployment rate among the graduated Indian was 10 per cent, while the equivalent figure for Jharkhand was 15.9 per cent, which is higher than the national average. In case of rural areas, around 15.4 per cent graduated persons were unemployed in India while the equivalent figure for Jharkhand was 17.4 per cent, again it is higher than the national average while in case of urban India, the unemployment rate among graduated persons is higher than the urban Jharkhand.

Table 10.14: Unemployment rate (PS+SS) for Graduated Persons of age 15 years and above in India and Jharkhand (2015-16) (%)

| India/State | Rural | Urban | Total |
|-------------|-------|-------|-------|
| India | 15.4 | 5.8 | 10 |
| Jharkhand | 17.4 | 3.8 | 15.9 |

Source: Fifth Annual Employment- Unemployment Survey, Labour Bureau, Ministry of Labour and Employment, Government of India, 2015-16

Unemployment rate of the Youth in Jharkhand

During 2011-12, the unemployment rate among the youth in the usual status (adjusted) was 4.9 per cent in rural India, and for rural Jharkhand, it was 6.2 per cent. In case of urban areas, the unemployment rate among youth was 9.2 per cent in India and 15.1 per cent in Jharkhand. At the disaggregate level, the unemployment rate among youth of the rural Jharkhand is the highest in 15-19 years of age group i.e. 10.3 per cent, followed by 6.6 per cent in the age group 20 to 24 years. In case of the rural female in Jharkhand, the unemployment rate is the highest in 25-29 years of age group, and it is zero in 15-19 years of age group. In urban Jharkhand, the unemployment rate among the male youths is the highest in 15-19 years of age group followed by 20-24 years of age groups. The equivalent figure for the females in the urban Jharkhand is the highest in the age group of 20-24 years.

Table 10.15: Unemployment rate (PS+SS) among the Youth (15-29) of India and Jharkhand (2011-12) (%)

| Age Groups | 15-19 | 20-24 | 25-29 | 15-29 |
|------------------------|-------------|-------------|-------------|-------------|
| India Rural | 7.8 | 5.9 | 2.4 | 4.9 |
| Male | 9 | 5.8 | 2.2 | 5 |
| Female | 4.9 | 6.4 | 3.3 | 4.8 |
| Jharkhand Rural | 8.2 | 6.7 | 4.7 | 6.2 |
| Male | 10.3 | 6.6 | 1.2 | 5.1 |
| Female | 0 | 7.2 | 15.4 | 9.5 |
| India Urban | 12.7 | 12.3 | 5.6 | 9.2 |
| Male | 12.9 | 10.5 | 4.7 | 8.1 |
| Female | 12.4 | 18.8 | 8.7 | 13.1 |
| Jharkhand Urban | 13.4 | 23.2 | 11.2 | 15.1 |
| Male | 16.9 | 16.3 | 11.2 | 13.5 |
| Female | 1.3 | 48.2 | 9.9 | 24.4 |

Source: National Sample Survey 68th round, Employment and Unemployment in India, 2011-12

Employment Generation

Various schemes are implemented by the state for

the employment generation. Recruitment camps and employment fairs are the kinds of programs initiated to create employment opportunities for the people.

Table 10.16: Rank wise companies and the number of selection (2015-16)

| Employer's Address | Number of selection |
|---|---------------------|
| M/S Welspun India Ltd., Anjar, Gujarat | 547 |
| M/S Hero Moto Corp Ltd. Haridwar, Uttarakhand | 286 |
| M/S Central Institute of Plastics Engineering & Technology, Amritsar | 143 |
| Madam Mala Institute of Hotel Management, Hazaribagh | 124 |
| Security Intelligence Service (India) Ltd. Cooperative colony, Bokaro | 120 |
| M/S Lava International Ltd. Noida | 116 |
| Security & Intelligence Service (India) Ltd. Dhanbad | 95 |
| M/S Samsung India Electronics Pvt Ltd, Noida, U.P. | 87 |
| M/S Wright Bus India Engineering Private Limited, Tamil Nadu | 75 |
| Arohan Financial Services Private Limited, Ashoknagar, Ranchi | 60 |
| Carry Soft Ltd. Hazaribagh | 46 |
| National Institute of Hotel Management Dipugarha, Hazaribagh | 34 |
| M/S Auto Profile Ltd., Adityapur | 26 |
| S.B.I. Life Insurance Co. Ltd. City Centre, Bokaro | 24 |
| Hope Care Services India Pvt. Ltd. Patna | 7 |
| M/S ITC LTD, Kolkata | 4 |
| Big Bazar, Dhanbad | 3 |
| Eureka Forbes Ltd.B.S. Heights, Ranchi | 1 |
| Super Smelters Limited Jamuria, Asansol; TATA Business Support Services Ltd, Jamshedpur | - |
| TOTAL | 1,798 |

Source: Directorate of Employment and Training, Government of Jharkhand

As per the records from Directorate of Employment and Training, Government of Jharkhand, 23 companies had participated in the recruitment fair in 2015-16. All the companies except Super Smelters Ltd., Asansol and TATA Business Support Services Ltd., Jamshedpur recruited at least 1 person. Welspun India Ltd., Gujarat was the biggest recruiter with 547 recruitments, followed by M/S Hero Moto Corp Ltd. Haridwar, Uttarakhand (286) and M/S Central Institute of Plastics Engineering & Technology, Amritsar (143). Eureka Forbes Ltd., Ranchi was the smallest recruiter (1), followed by Big Bazar,

Dhanbad (3) and ITC Ltd., Kolkata (4).

This implies that the non-state companies are the bigger recruiters than the state companies. As reported by the Directorate of Employment and Training, (Government of Jharkhand), there were about 8 non-state recruiters recruiting a total of 1258 persons in 2015-16. While there are 11 state companies recruiting only 533 persons. This shows that greater job opportunities are available outside Jharkhand. The state government needs to boost the local companies to generate more employment in the state.

Table 10.17: Number of recruitment camps and selection (2011-2012)

| Place | Number of recruitment camp | Per cent of selection | Number of selection |
|------------|----------------------------|-----------------------|---------------------|
| Bokaro | 3 | 11.8 | 271 |
| Chaibasa | 1 | 3.5 | 101 |
| Daltonganj | 1 | 3.2 | 92 |
| Dhanbad | 5 | 12.2 | 352 |
| Hazaribagh | 1 | 2 | 57 |
| Jamshedpur | 8 | 27.3 | 786 |
| Ranchi | 10 | 42.4 | 1221 |
| TOTAL | 29 | 100 | 2880 |

Source: Directorate of Employment and Training, Government of Jharkhand

In the year 2011-12, the number of recruitment camps organised was 29 which recruited 2880 individuals. Directorate of Employment and Training states that there were 10 recruiters, out of which 6 were non-state recruiters. Ranchi, which had the maximum of 10 camps, recruited the maximum of 1221 persons, which is 42.4 per cent of the recruitment. This was followed by Jamshedpur which had 8 camps recruiting 27.3 per cent (786 persons). Dhanbad

recruited 12.2 per cent of persons. Hazaribagh recruited the lowest number of 57 persons, i.e. only 2 per cent. Recruitment by the non-state recruiters was as high as 93.6 per cent. There were two recruitment camps in Dhanbad and Ranchi organised by Reliance Retail Ltd., Ranchi and Tata Motors, Uttarakhand respectively which did not recruit any person.

Table 10.18: Number of recruitment camps and selection (2012-2013)

| Place | Number of recruitment camp | Number of selection | Per cent of selection |
|------------|----------------------------|---------------------|-----------------------|
| Bokaro | 1 | 56 | 3.56 |
| Chaibasa | - | - | - |
| Daltonganj | 1 | 185 | 11.76 |
| Dhanbad | 3 | 348 | 22 |
| Hazaribagh | 1 | 264 | 16.8 |
| Jamshedpur | 1 | 33 | 2.1 |
| Ranchi | 4 | 421 | 26.76 |
| Koderma | 1 | 89 | 5.65 |
| Dumka | 1 | 63 | 4 |
| TOTAL | 13 | 1573 | 100 |

Source: Directorate of Employment and Training, Government of Jharkhand

In the year 2012-13, there were 13 recruitment camps which recruited a total of 1573 persons. Thus, over the year there was a decline in both the number of camps as well as the number of recruitments. Ranchi again had the most number of camps, i.e. 4, again recruiting highest, 421 persons (26.76 per cent).

Thus, the recruitment level decreased from 42.4 per cent in 2011-12. Jamshedpur, however, recruited the lowest of 33 persons i.e. 2.1 per cent. This also decreased from previous year's recruitment of 27.3 per cent. In fact, an overall decrease in recruitment percentage is observed across all districts in the year

2012-13. However, this year was remarkable as new camps were introduced in Koderma and Dumka

which recruited 89 and 63 persons respectively. All the recruiters were non-state recruiters.

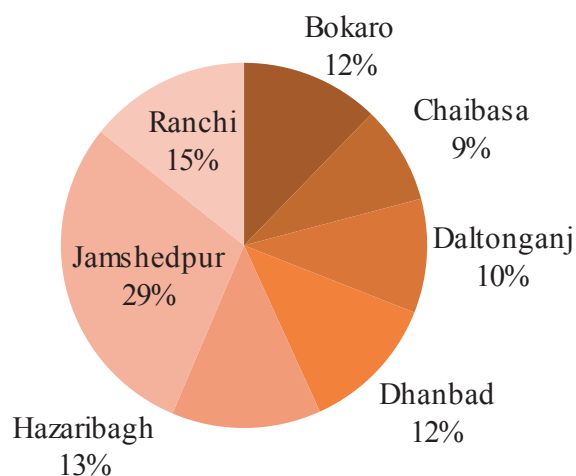
Table 10.19: District-wise number of recruitment camps and selection (2015-2016)

| Place | Number of recruitment camp | Number of selection | Per cent of selection to Total selection |
|------------|----------------------------|---------------------|--|
| Bokaro | 2 | 340 | 12 |
| Chaibasa | 1 | 241 | 8.6 |
| Daltonganj | 2 | 281 | 10 |
| Dhanbad | 2 | 340 | 12 |
| Hazaribagh | 2 | 367 | 13.2 |
| Jamshedpur | 8 | 815 | 29.3 |
| Ranchi | 8 | 398 | 14.3 |
| TOTAL | 25 | 2782 | 100 |

Source: Directorate of Employment and Training, Government of Jharkhand

Table 10.19 and figure 10.1 illustrate the number of recruitment camps and selection occurring under it. It illustrates the data of seven places in Jharkhand i.e. Bokaro, Chaibasa, Daltonganj, Dhanbad, Hazaribagh, Jamshedpur and Ranchi. A total of 25 recruitment camps were organised during the period of 7 April to 2 December 2015. The highest number of camps was 8, organised in the capital city Ranchi and Jamshedpur. Chaibasa had just 1 camp while remaining districts had 2 camps. The 4 camps organised in Daltonganj, Dhanbad, Jamshedpur and Ranchi, had no recruitment.

Figure 10.1: Number of selection in recruitment camps (2015-16)



Source: Directorate of Employment and Training, Government of Jharkhand

A total of 2782 persons were selected for employment by different recruiters. A highest of 815 persons was recruited from Jamshedpur i.e. 29.3 per cent. This is a massive improvement from the previous years' recruitments. While lowest, only 8.6 per cent (241 applicants) was selected from Chaibasa. However, it is to be noted that Chaibasa organised just one camp, while capital Ranchi had 8 camps yet recruited merely 14.3 per cent (398 persons). This again is a decrease in the recruitment percentage in Ranchi over the years from 42 per cent in 2011-12 to 14.3 per cent in 2015-16. Thus, a higher number of camps do not necessarily lead to more recruitment. Therefore, the skill of people and the requirements of the companies need to be considered and enhanced to increase the recruitment.

In 2015-16, 25 Employment fairs were organized in all 24 districts of Jharkhand. These were organised from 24.07.2015 to 4.3.2016. However, only 8 employment fairs in Bokaro, Hazaribagh, Koderma, Dhanbad, Khunti, Jamshedpur, Ramgarh and Ranchi provided the selection of persons. Ranchi had two employment fairs. A total of 4412 persons were selected in the employment fair. Ranchi had the highest number of selected persons i.e. 1075. This was 24.36 per cent of the recruitment through

employment fair. Bokaro had the lowest number of selected persons in the fair. It recruited just 7.18 per cent. While Ramgarh recruited about 15.43 per cent. In summation of the recruitment camp (2782) and employment fair (4412), a total of 7194 persons were selected and employed in the year 2015-16.

Table 10.20: Rank Wise table of the selection during employment fair in different districts (2015-16)

| Place | Number of selection | Per cent of selection |
|------------|---------------------|-----------------------|
| Bokaro | 317 | 7.18 |
| Hazaribagh | 334 | 7.57 |
| Koderma | 349 | 7.9 |
| Dhanbad | 476 | 10.78 |
| Khunti | 562 | 12.73 |
| Jamshedpur | 618 | 14 |
| Ramgarh | 681 | 15.43 |
| Ranchi | 1075 | 24.36 |
| Total | 4,412 | 100 |

Source: Directorate of Employment and Training, Government of Jharkhand

The Department of Labour, Employment & Training organises Rojgar Melas and recruitment camps throughout the year to facilitate interaction between job seekers and job providers. Table 10.21 shows that in 2017-18, 17293 candidates were selected under Rojgar Mela, out of them 8121 have received the appointment letter and 2247 have joined so far. Similarly, in the same year, 10086 persons were selected through recruitment camps, out of which 3401 have received appointment letters and 2876 joined the jobs. In 2017-18, 3351 persons were selected through Focus Area Rojgar Mela, out of them 1594 received appointment letters and 449 have joined so far. In this year, 953 persons selected through Shahid Rojgar Mela, out of them 408 received appointment letters and 151 persons joined till date. In 2017-18, through these four Melas and Recruitment Camps, 31683 persons selected for the jobs, out of which, 13524 received appointment

letters and 5723 persons have joined so far.

Table 10.21: Selected Applicants through Rojgar Mela in Jharkhand (2017-18)

| Rojgar Mela/ Recruitment Camp | Total Number of Selection | Appointment Letter Issued | Joined |
|-------------------------------|---------------------------|---------------------------|--------|
| Rojgar Mela | 17293 | 8121 | 2247 |
| Recruitment Camp | 10086 | 3401 | 2876 |
| Focus area Rojgar Mela | 3351 | 1594 | 449 |
| Shahid Rojgar Mela | 953 | 408 | 151 |
| Total | 31683 | 13524 | 5723 |

Source: Department of Labour, Employment and Training, Government of Jharkhand

Skill Development and Employment Generation Programs

The Jharkhand government has initiated many schemes which aim to increase employment via investing in the skill development, providing social security and promoting self-employment. The various schemes intending to reduce unemployment and poverty are discussed below.

Prime Minister Stand-up India Scheme which facilitates bank loans between Rs 10 lakh to Rs 1 crore to at least one Scheduled Caste or Scheduled Tribe borrower and at least 1 woman borrower per bank branch for setting up a Greenfield enterprise. Under this scheme, a loan of Rs 110.43 crore has been provided to 574 beneficiaries in Jharkhand. This scheme also aims to enhance transportation in the rural areas by allowing the banks to provide loans for rural bus services. Under this provision, the bus permit is to be issued at mere Re 1, also provide tax concessions to the permit-issued vehicles. By enhancing the transportation and connectivity in the rural areas, the government thus envisions to increase the economic activities which will therefore follow.

The **Prime Minister MUDRA (Micro Units**

Development and Refinance Agency Ltd.) Scheme aims to encourage the entrepreneurship, small companies and start-ups by providing the small and independent entrepreneurs with multiple financial institutions to provide loans. It was initiated in April 2015. It provides a maximum loan of Rs 10 lakh. It was initiated in Dumka, Jharkhand on 2 October 2015. It has provided Rs 2595 crore worth loan to 4.98 lakh beneficiaries.

Prime Minister Life Insurance Scheme intends to provide Rs 2 lakh insurance on the death of people under the age of 18-50 years. About 4.94 lakh people have benefited under this scheme in Jharkhand. Thus, it is a step forward towards extending social security towards the poor, who are mostly in informal sector which does not cover life insurances.

A good education is a prerequisite to increasing opportunity for better and stable jobs. The state government has therefore appointed 16394 primary schools and 1719 high school teachers. It plans to further appoint 18000 more teachers. Thus, both education and employment are to increase. Health is also an important factor to ensure that an ‘able’ body is available for work. The state government has appointed 322 medical workers and 162 medical specialists, 369 non-teaching staffs and 100 teaching staffs in medical institutions. Thus, attempts have been made to improve the education and health status as well as to use them as possible sectors to increase employment. Further, the state government has plans to increase employment among the weaker sections and women. For this, two **India Reserve Scheduled Caste Battalion** has been formed which has created 2214 posts. Further, **Sakhi Mandali** has been launched on a large scale to provide employment opportunities to women in the fishery, horticulture, animal husbandry (poultry farming, cattle farming), sericulture, and handicraft.

The state government has focused especially on trade to attract investment (both domestic and foreign) and employment. It is doing so via schemes like **Ease of Doing Business** and **Skill Development Centre**. Jharkhand ranks 7th on the Ease of Doing Business rank list. It has launched **Land Bank** to encourage domestic trade. The government has also initiated **Jharkhand Corporate Social Responsibility Council** in 2015 to perform social work via corporate sector. Consequently, it has dispatched Rs 1200 crore for education, health, sanitation and skill development.

Labour Reforms

Jharkhand’s economy, especially the labour laws are traditionally suffered due to political instability in the state. However, post-2015, there has been an improvement in the labour sector and the economy. The number of the construction workers doubled up in 1000 days i.e. from 3.10 lakh in 2014 to 7.11 lakh in 2017.

Table 10.22: Year-wise change (2014-2017) in different parameters of Labour and Employment Sector

| Category | 2014 | 2017 |
|--|-----------|-----------|
| Construction workers | 3.10 lakh | 7.11 lakh |
| Unorganized workers | - | 6.53 lakh |
| Minimum wage | 178.67 | 229.90 |
| No. of selected workers in the employment fair | 7655 | 22747 |
| No. of selected workers in the training industrial centres | 21724 | 29655 |
| No. of industrial training centres | 27 | 68 |

Source: Directorate of Employment and Training, Government of Jharkhand

There was also an increase in the wages of the construction workers and manual labourers. Their minimum wage rose from Rs 178.67 to Rs 229.90 in 2016. A rise in the number of industrial training centres was also recorded. The number of industrial

training institutions rose a little more than double from 27 to 68. This has boosted the employability of the workers and provided better livelihood opportunities.

Momentum Jharkhand

Momentum Jharkhand Global Investors Summit on 16-17 February 2017 was organised by the Jharkhand government in a bid to attract investment and boost industries in the state. The Summit was deemed successful as 210 MoUs were signed which would bring in an investment of Rs 3.10 lakh crore and create 21076 potential jobs. To fulfil the promises made in the Momentum Summit, the first ground breaking ceremony was organized on 18 May 2017 in Ranchi, in which 21 industries invested Rs 710 crore and created 21184 jobs. Another ground breaking ceremony was organized in Jamshedpur on August 19, 2017. This resulted in the foundation of 74 industries which made an investment of Rs 2184 crore and created 10335 jobs. Thus, 95 MoUs out of the signed 210 are already in the implementation process. The third round of ground breaking ceremony was organized on December 20, 2017 in Bokaro. This laid the foundation of 105 industries. 3000 industrialists and investors participated in the ceremony. An investment of Rs 3475.14 crore was proposed. This is expected to provide jobs to 17778 people. Various land incentives will be provided to attract investors. The *ryot* land will be provided at 50 per cent rate, which can be paid in 10 instalments.

Jharkhand Industrial Sector Development Prerequisite was formed in May, 2016 to assist in the land allocation process for industrial setup in different industrial areas. It was also set up to provide other incentives to industries and bring transparency and uniformity in the whole process in different areas. This will enhance growth and employment in different areas of Jharkhand.

Further, the state government has formed **Small and Cottage Industries Development Board** to assist the Small and Cottage Industries. This will provide technical assistance, financial support, training and marketing services. The operations are being performed by 300 able and qualified persons in different districts. Such an initiative will enable the persons who are in Small and Cottage Industries to get better job opportunities. It has provided a fillip to the Jharcraft which will facilitate better-paying jobs to those working in handicrafts, handlooms and traditional art and craft. To encourage the potters and clay workers, the state government has formed the **Jharkhand Clay Craft Workers**. Jharkhand Corporate Social Responsibility Council was formed in 2015 to encourage corporate contribution in the social security like education and health. This also includes skill development programs which better equips the employability of the person. The government has also planned to reopen more than 100 closed food factories in the rural and tribal areas to generate employment. This will generate jobs in Lohardaga, Gumla and Latehar districts of Jharkhand.

Employment to Residents of Jharkhand

There has been government appointment of 1 lakh people. About 90 per cent of appointed persons are local residents. The Currency Plan and *Sakhi Mandal* have provided self-employment to 1 lakh and 10 lakh people respectively. To encourage employment and especially to the locals of Jharkhand, the government had declared the year 2017 as the 'Appointment Year'. It seeks to employ local people to prevent them from migrating to other states. Unemployment, lack of jobs and poverty has been key issues of Jharkhand. To solve this, Jharkhand government plans to appoint locals in government, private, self-employment and investment jobs. About 2188 forest

guards have been appointed, which consists of 148 women. However, the government is restricted in its capacity to provide employment to all. Therefore, it depends on private companies and investors. To encourage this, it organizes various recruitment fairs and Momentum Jharkhand. To battle unemployment, self-employment has been seen as an effective tool. To encourage self-employment, various skill development programs are organized. On the occasion of World Skill Day, large numbers of people were provided work. The government has planned to provide 25000 jobs to the youth on the occasion of Swami Vivekananda Birthday on January 12, 2018.

Labour Management, Training and Skill Development

Apart from wages, the social security constitutes an essential feature of labour and employment-related sector. Therefore, the government has launched various programs to provide better social security to the poor and disadvantaged workers.

1. Residence for the *Bidi*-workers (State Scheme)

The *bidi* workers with BPL cards are eligible to avail the benefit of getting a house. For this, they should be *bidi*-workers, not availing any other government residence-related scheme, or does not have a *pucka* house of their own. These workers are from poor backgrounds and work in the informal unorganized sector, receiving low wages with no social security. This scheme provides residence to such workers.

2. Jharkhand Unorganized Social Security Scheme

This scheme covers all labourers between the ages 18-60 years. The labourers face exploitation and entrenched poverty as they lack education, skill and employment opportunities. Therefore, it is important to provide them social security. Under this scheme,

the workers who die or suffer an injury during work get the health benefits. Schemes like Jharkhand Unorganized Workers Insurance Plan, Jharkhand Chief Minister Unorganized Worker Employment Training Plans, Jharkhand, etc. aim to cater to the residence, health and education needs of the unorganized workers.

3. Model Career Centre

Under the provision of the National Career Service, there has to be an allotment for the development of necessary skills to match the aptitude of the people to the appropriate job. This scheme will be integrated with the National Career Service (NCS) portal to attract investors and unemployed and provide both the job-providers and job-seekers a common platform to benefit from each other. Thus, the unemployed find work according to their skill in meaningful employment and the employers get the appropriately skilled employees.

4. Craftsman Training Scheme

This is a state-initiated program to develop the skill of the youth through government and non-government industrial centres. Jharkhand is rich in forest resources and therefore many products are formed via craftsmanship. People between the age 14-40 years and of educational qualification of class 8-12th pass are eligible for this scheme. They are provided training through government and non-government centres.

5. Industrial Development centre for I.T.I

This scheme is specially designed to provide employment to the youth in the ITI sector. Any youth, who is at least 8th, 10th or 12th pass is eligible to seek employment via this scheme in ITI. Along with providing them employment, it also has programs for the development of skill. Such programs are run by the government and non-government centres.

6. Adolescent Training Scheme

This scheme aims to train the adolescent and the youth in the skills needed by the ITI sector. It provides advanced training to the youth who have ITI degrees. They also receive scholarship according to the Adolescent Act 1961.

7. Skill Development Mission

The scheme has a vision of removing unemployment by providing skill and training to every unemployed person. This will enable people to find employment or be self-employed. The aim is to generate employment for 50000 youth in all 200 blocks via district level Skill Development Programs.

8. Skill Development Initiative Scheme

This scheme is aimed at improving the conditions of the neglected groups of adolescent/youth due to various reasons. The school drop-outs, children freed from bonded-labour, manual labourers in the unorganized sector, and others who do not have high school education due to difficult circumstances are the target group of this scheme. The scheme runs at district level through the registered vocational training providers.

9. Skill Development Program for the Naxal-affected area

Naxalism is one of the gravest problems for increasing unemployment in Jharkhand. This scheme especially aims to provide skill development programs to generate employment among the youth belonging to Naxal-affected areas. To avail the short courses, one has to be 5th, 8th, 10th or 12th pass for a moderate course, and ITI pass for an advanced course. They also receive a scholarship under the scheme.

Jharkhand is a resource-rich state with large forest cover. Forests are being used as a source of livelihood by linking the small forest products like honey, lac,

tamarind, tulsi, lemongrass, etc. to the larger market. Thus, through these projects, the government has intended to reduce unemployment and poverty by making everyone self-reliant and employed by 2022.

Migration

Migrants are defined as those whose last place of residence is different from the present place of enumeration. According to the Census of India 2011, there are 453.6 million migrants in India and 103.7 million in Jharkhand by place of the last residence. The rate of migration in India as well as Jharkhand has increased during 2001-2011. In 2001, migration rate in India by place of the last residence was 30.6 per cent, which has increased to 37 per cent. A substantial percentage of females migrate for various reasons from both rural and urban India. The rate of migration among the males is lower in both rural as well as urban areas compared to female. The overall migration rate in Jharkhand is less than the national average. The gap between male and female migration rate is quite high in Jharkhand.

Table 10.23: Migration Rate by Place of Last Residence in India and Jharkhand (2011) (%)

| Male/Female | Male | Female | Total |
|------------------|-----------|-----------|-----------|
| India | 23 | 53 | 37 |
| Rural | 19 | 56 | 37 |
| Urban | 23 | 32 | 27 |
| Jharkhand | 14 | 50 | 31 |
| Rural | 11 | 54 | 32 |
| Urban | 14 | 23 | 18 |

Source: D-Series data on Migration, Census of India, 2011

The reason for migration by sector and gender is provided in Table 10.24. Out of the total 100 per cent migrants, 49 per cent in India and 65 per cent in Jharkhand have migrated for marriage-related reasons followed by moved with households.

Apart from it, a large number of persons have also migrated for the economic reasons, for instance, 10 per cent population migrated for employment/work related reasons in India and equivalent figure for the Jharkhand was 9 per cent. The proportion of urban males migrating for employment reasons is high in India and Jharkhand than its counterpart. The gap between male and female migration rate for

employment reasons is rather high. The migration for business-related reasons was higher among urban males than the rural areas. The migration of women in both rural India and Jharkhand for business is almost negligible. Migration of the rural male is higher in India as well as Jharkhand than the urban male, although, the gap between male and female is high in both the areas.

Table 10.24: Sector and Gender-Specific Reasons for Migration in India and Jharkhand in 2011

| India/ State | | India | | | Jharkhand | | |
|-----------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Reasons for Migration | | Rural | Urban | Total | Rural | Urban | Total |
| Work/ Employment | Male | 31 | 27 | 28 | 40 | 35 | 36 |
| | Female | 2 | 4 | 2 | 1 | 3 | 1 |
| | Total | 9 | 14 | 10 | 8 | 16 | 9 |
| Business | Male | 2 | 3 | 2 | 2 | 2 | 2 |
| | Female | 0 | 1 | 0 | 0 | 1 | 0 |
| | Total | 1 | 2 | 1 | 0 | 1 | 1 |
| Education | Male | 4 | 3 | 3 | 5 | 4 | 4 |
| | Female | 1 | 2 | 1 | 1 | 1 | 1 |
| | Total | 2 | 2 | 2 | 2 | 2 | 2 |
| Marriage | Male | 6 | 2 | 4 | 9 | 2 | 7 |
| | Female | 78 | 46 | 70 | 87 | 57 | 82 |
| | Total | 60 | 27 | 49 | 73 | 36 | 65 |
| Moved after Birth | Male | 19 | 23 | 20 | 5 | 13 | 9 |
| | Female | 4 | 13 | 6 | 1 | 6 | 2 |
| | Total | 8 | 18 | 11 | 2 | 9 | 3 |
| Moved with Household | Male | 22 | 25 | 22 | 24 | 30 | 25 |
| | Female | 9 | 24 | 12 | 7 | 26 | 9 |
| | Total | 13 | 24 | 15 | 10 | 28 | 13 |
| Others | Male | 16 | 17 | 20 | 16 | 14 | 18 |
| | Female | 5 | 10 | 8 | 3 | 6 | 5 |
| | Total | 8 | 13 | 12 | 5 | 9 | 8 |

Source: D-Series data on Migration, Census of India, 2011

Status of Child Labour

The Government of Jharkhand is committed to combat child labour. For this, the government is running *Bal Shramik Shiksha Protsahan Yojana (BSSPY)*, *Medhavi Putra/Putri Chatravriti Yojana (MPCY)* in the state. The government is strictly following the Child Labour Prohibition and Rehabilitation Act 1986 and the Child Labour (Prohibition and Regulation) Amendment Act, 2016. These efforts have led to the reduction of child labour in Jharkhand. According to the Census of India 2001, there were 407200 child labours in Jharkhand i.e. 3.2 per cent of the total child labour in India. In 2011, 316204 child labours decreased in the state which is quite appreciable. In 2011, there were 90996 child labours in the state i.e. 2 per cent of the total child labour of the country.

Table 10.25: Number of Child Labourer in Jharkhand and India

| Number of working in the age group of 5-14 years | Census 2001 | Census 2011 |
|--|-------------|-------------|
| India | 12666377 | 4353247 |
| Jharkhand | 407200 | 90996 |

Source: Census of India, 2001 & 2011

According to National Sample Survey Data 66th round, out of total child labour, 62 per cent worked in the agricultural sector, 13 per cent in manufacturing and 11 per cent in the trade and hotels. Thus, the

focus should be on the prevention of child labour in the agricultural sector of the state.

Table 10.26: Sectoral Distributions of Child Labourers in Jharkhand (2009-10) (%)

| Sectors | Jharkhand |
|--------------------|-----------|
| Agriculture | 62.21 |
| Mining & Quarrying | 0 |
| Manufacturing | 13.45 |
| Construction | 6.4 |
| Trade, Hotel | 11.32 |
| Transport | 0.8 |
| Others | 5.7 |

Source: National Sample Survey round 66th, Employment and Unemployment, 2009-10

Involvement of Women in Domestic Activities along with Specific Work

Among women of 15 years and above, about 61 per cent women engaged in domestic duties in India, and the corresponding figure for Jharkhand was 69 per cent which is higher than the national average. Among 5 years and above, around 48 per cent women engaged in the domestic duties, and the equivalent figure for Jharkhand was 52 per cent. Among 15 years and above, 64 per cent women were engaged in domestic work in urban areas of India, while the same figure for Jharkhand was 69 per cent.

Table 10.27: Distribution of Women in Domestic Duties (5 to 15 Years and above) in India and Jharkhand (2011-12) (%)

| Domestic Duties | Rural | | Urban | | Total | |
|-----------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|
| | 15 years and above | Five years and above | 15 years and above | Five years and above | 15 years and above | Five years and above |
| India | 59.7 | 46.3 | 63.7 | 51.7 | 60.9 | 47.9 |
| Jharkhand | 69.1 | 51 | 69.4 | 54.4 | 69.1 | 51.7 |

Source: National Sample Survey 68th round, Participation of women in specified activities also with Domestic Duties, 2011-12

About 39 per cent women preferred to work in tailoring followed by others (15 per cent) and dairy (14 per cent). A similar pattern was found in rural and urban India. In case of Jharkhand, about 31 per cent women preferred to work in tailoring, a similar trend was observed in rural and urban areas of Jharkhand.

The second choice of women engaged in domestic duties in urban areas of Jharkhand is spinning and weaving while in rural Jharkhand the second choice of the women is another animal husbandry followed by dairy and poultry.

Table 10.28: Distribution of Females of Age 15 years and above Engaged in Domestic Duties by Nature of Work Acceptable (2011-12) (%)

| Type of Work acceptable | India | Rural | Urban | Jharkhand | Rural | Urban |
|---------------------------------------|-------|-------|-------|-----------|-------|-------|
| Dairy | 14 | 18 | 4 | 14 | 15 | 7 |
| Poultry | 7 | 9 | 2 | 13 | 15 | 8 |
| Other animal husbandry | 8 | 10 | 2 | 15 | 17 | 8 |
| Food Processing | 7 | 7 | 8 | 5 | 4 | 7 |
| Spinning and Weaving | 9 | 1 | 9 | 13 | 12 | 18 |
| Manufacture of wood and cane products | 1 | 1 | 1 | 1 | 1 | 0 |
| Tailoring | 39 | 34 | 51 | 31 | 30 | 35 |
| Leather goods Manufacture | 0 | 0 | 0 | 0 | 0 | 0 |
| Others | 15 | 12 | 23 | 8 | 5 | 2 |
| All | 100 | 100 | 100 | 100 | 100 | 100 |

Source: National Sample Survey 68th round, Participation of women in specified activities also with Domestic Duties, 2011-12

Social Security

Social security is an essential component of the work. It includes a provident fund, pension, and gratuity, health care and maternity benefits. The government of Jharkhand is committed to protecting its workers. For that government is running various schemes and program in the state.

The daily minimum wage for 77 employment categories of the state is given in Table 10.29. By skill, four types of workers are recognised by the

government of Jharkhand namely unskilled, semi-skilled, skilled, and super skilled. The daily minimum wage rate for the unskilled workers is 229 rupees in Jharkhand while for the semi-skilled workers it is 240 rupees. There is a minor gap in the wage rate of unskilled and semi-skilled workers. For the skilled workers, the daily wage is 317 rupees, while the super-skilled workers receive Rs. 366 which is Rs. 49 higher than the skilled workers. A similar pattern is observed for the monthly wage rate of the workers.

Table 10.29: Total Daily Wage Rate (Minimum wage + Variable Dearness Allowance) of Department of Labour, Employment and Training for 77 Employments (2017)

| Type of workers | Total Daily Wage Rate | Monthly Wage rate |
|-----------------|-----------------------|-------------------|
| Unskilled | 229 | 5977 |
| Semi -Skilled | 240 | 6262 |
| Skilled | 317 | 8254 |
| Super Skilled | 366 | 9535 |

Source: Department of Labour, Employment and Training, Government of Jharkhand

The daily and monthly minimum wages of the government office, board, enterprise, Sthaniya Nikay is given in Table 10.30. Across all the categories, the

daily and monthly wage rates of these offices are higher than the 77 selected employment sectors. The wage gap among all four groups is higher than the 77 other employment sectors.

Table 10.30: Total Daily Wage (Minimum wage + Variable Dearness Allowance) Rate of Department of Labour, Employment and Training for Government Office, Board, Enterprise, Sthaniya Nikay (2017)

| Type of workers | Total Daily Wage Rate | Monthly Wage rate |
|-----------------|-----------------------|-------------------|
| Unskilled | 246 | 6404 |
| Semi -Skilled | 262 | 6831 |
| Skilled | 339 | 8824 |
| Super Skilled | 394 | 10247 |

Source: Department of Labour, Employment and Training, Government of Jharkhand Social Security for the Informal Workers

The distribution of workers who are not eligible for any social security has given in Table 10.31. About 55 per cent regular employees in India were not eligible for any social security while in case of casual workers, this proportion is quite high (93 per cent). For all employees, this figure was around 72 per cent. There is a minimal gap between rural and urban areas of India. In Jharkhand, around 39 per cent regular wage salaried employees were not eligible

for any social security that is lower than the national average. In case of casual labour, the gap between Jharkhand and the national average is not very high. Around 76 per cent employees in Jharkhand are not eligible for any social security which is less than the national average. In urban Jharkhand, the proportion of ineligible regular/wage salaried employees is lesser than the rural Jharkhand.

Table 10.31: Proportion of Regular wage/salaried employees and Casual labourer not eligible for any social security benefit in India and Jharkhand (2011-12) (%)

| Without Social Security | Regular wage/ Salaried | Casual Labour | All Employees |
|-------------------------|------------------------|---------------|---------------|
| India | 55.5 | 93.3 | 72.2 |
| Rural | 58.2 | 92.7 | 80 |
| Urban | 54 | 95 | 63.5 |
| Jharkhand | 38.6 | 92.9 | 75.8 |
| Rural | 48.3 | 92.4 | 85.7 |
| Urban | 33.7 | 95.8 | 53.8 |

Source: National Sample Survey 68th round, Informal Sector and Conditions of Employment in India, 2011-12

Conclusions

In 2015-16, the labour force participation rate in Jharkhand was 66.6 per cent, which was 14.4 percentage points above the national average of 52.2 per cent. The unemployment rate in Jharkhand was 2.2 per cent, which was lower than the national average. The unemployment rate was reported to be 1.2 and 7.9 in rural and urban areas in Jharkhand, against the national average of 3.4 and 4.4 in rural

and urban areas respectively. The state government is making tireless efforts to reduce the unemployment rate and has launched various Centre and state sponsored employment schemes and programs. Despite these efforts, a substantial proportion of the population migrate for employment. Hence, a more focused approach is required to ensure employment generation and reduce migration to other states.

XI

EDUCATION



Over the years, Jharkhand has made significant strides in the realm of education. Notwithstanding, several areas of concern persist even today in this field. Keeping this in view, the School Education and Literacy Department of Jharkhand is aiming at achieving a comprehensive and equitable education, and the Higher Education Department is striving for Access, Equity and Excellence at par with national average by 2022. The State Government is aspiring for universalization of school education and is making efforts to address the existing issues and overcoming the challenges both at the school and the higher education level.

School Education and Literacy

The department is focusing on Sustainable Development Goals (SDG) for inclusive and equitable quality education in the State. The SDGs as defined by the department¹ are as follows:

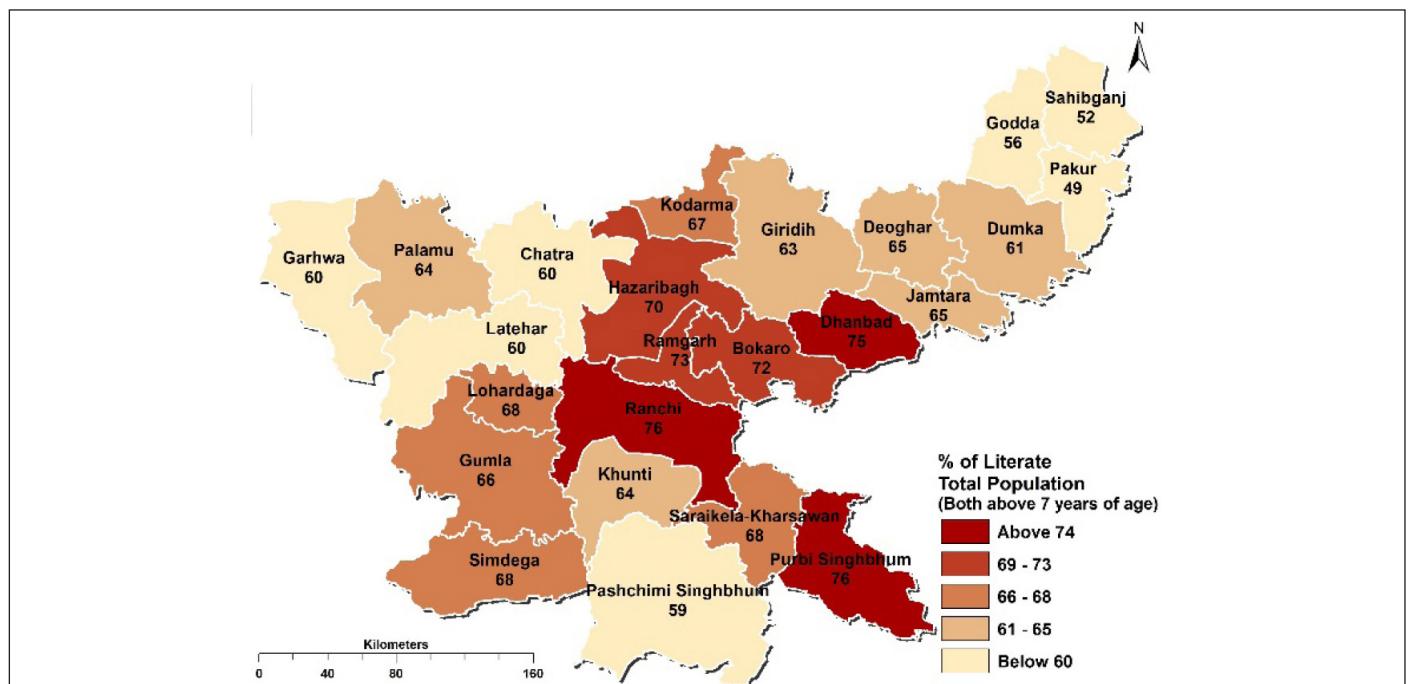
- Increase the access to secondary and senior secondary schools in the State

- Appointment of teachers
- Create better and proper infrastructures in all schools
- Support Girls' Education
- Facilitate computer education for secondary and senior secondary classes
- Virtual Classrooms & Digital Libraries
- Vocational Education
- Strengthening of schools
- Provide Mid Day Meal to all the eligible children un-interruptedly
- Strengthening of teachers' education institutions

Literacy in Jharkhand has improved by 12.85 percentage between 2001 and 2011.

According to 2011 Census, the literacy rate of Ranchi district was recorded the highest (76.1 per cent) while the literacy rate of Pakur district was the lowest (48.8 per cent). Also, the total literacy rate of eleven districts is more than the state average (66.4 per cent).

Map 11.1: District-wise Literacy Rate in Jharkhand 2011



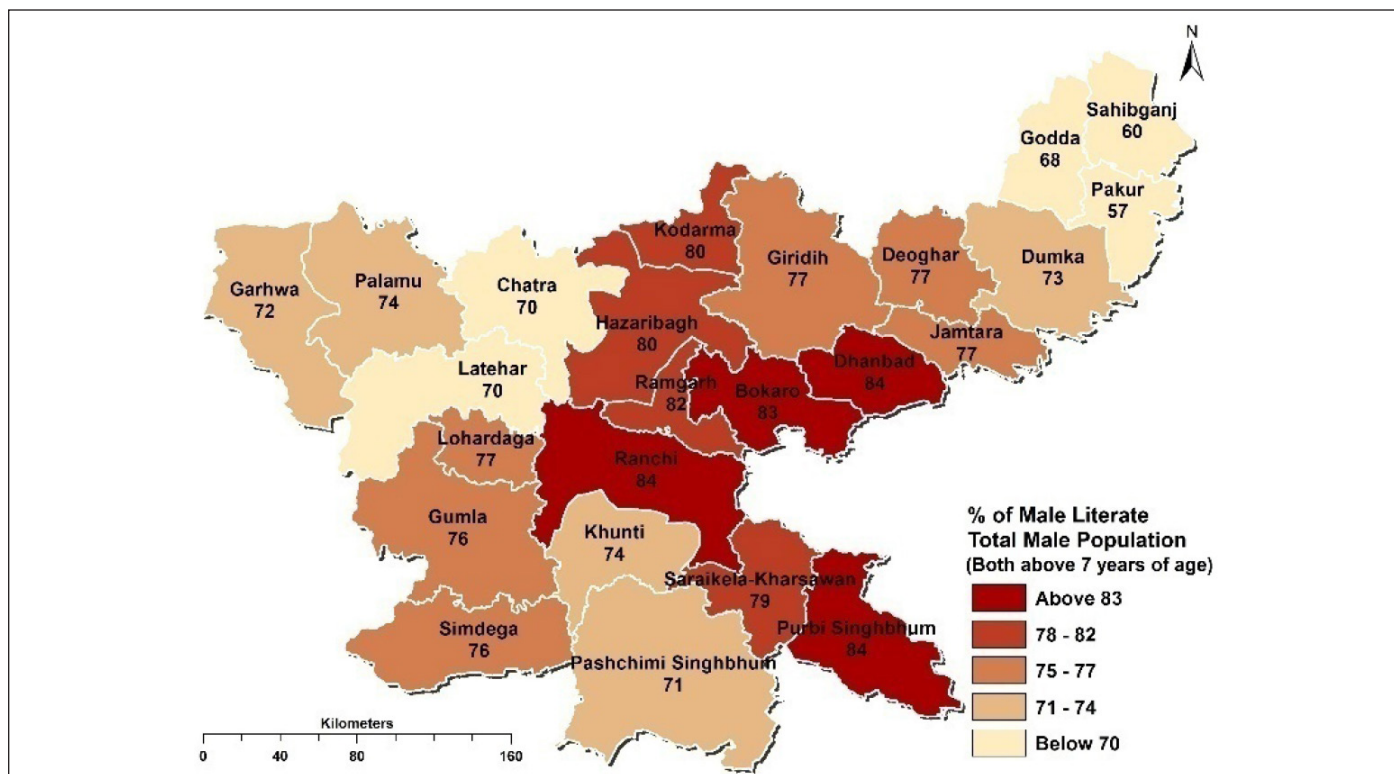
Source: Compiled using Census of India 2011

1 Planning-Cum-Finance Department, Planning Division, Government of Jharkhand

The literacy rate of Jharkhand among males (76.8 per cent) is more than the females (55.4 per cent). Among all the districts, Ranchi district has the

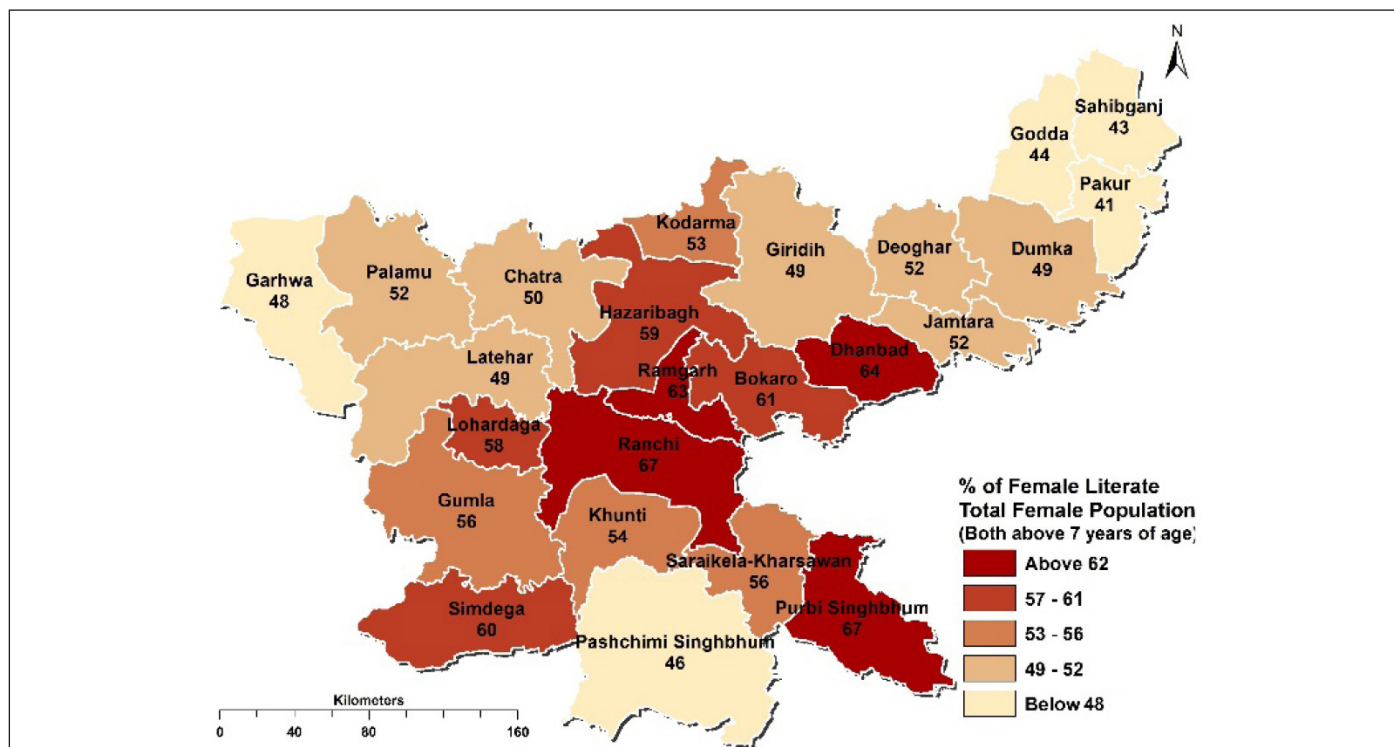
highest male and female literacy rate while Pakur district has the lowest male and female literacy rate.

Map 11.2: District-wise Male Literacy Rate in Jharkhand in 2011



Source: Compiled using Census of India 2011

Map 11.3: District-wise Female Literacy Rate in Jharkhand in 2011



Source: Compiled using Census of India 2011

• **Gender Parity Index**

According to UNESCO, Gender Parity Index (GPI) means ratio of female to male values of a given indicator. GPI value of 1 indicates parity between females and males. In general, a value less than 1 indicates a disparity in favour of males and a value greater than 1 indicates a disparity in favour of females. However, the interpretation is the other way around for negative indicators like, repetition rate, dropout rate, illiteracy rates, etc. In these cases, a GPI value of less than 1 indicates a disparity in favour of females and a value greater than 1 indicates a disparity in favour

of males. In case of Jharkhand, the value of GPI is 0.72 for males vis-à-vis female literacy rate which shows a disparity in favour of males. In Giridih district, there exists the highest disparity in favour of males, followed by Godda, Paschimi Singhbhum and Garhwa districts.

The districts with higher literacy rates like Ranchi (76 per cent), Purbi Singhbhum (75.5 percent), Dhanbad (74.5 per cent) and Ramgarh (73.2 per cent) are nearer to parity (Ranchi-0.80, Purbi Singhbhum-0.80, Dhanbad-0.77, and Ramgarh-0.77) in terms of male-female literacy rates.

Table11.1: Gender Parity Index on Male-Female Literacy Rates in Jharkhand

| Districts | Gender Parity Index | Districts | Gender Parity Index |
|---------------------|---------------------|----------------|---------------------|
| Giridih | 0.63 | Chatra | 0.71 |
| Godda | 0.65 | Sahibganj | 0.72 |
| PashchimiSinghbhum | 0.65 | Khunti | 0.72 |
| Garhwa | 0.66 | Bokaro | 0.73 |
| Kodarma | 0.67 | Hazaribagh | 0.74 |
| Dumka | 0.67 | Gumla | 0.74 |
| Deoghar | 0.67 | Lohardaga | 0.75 |
| Jamtara | 0.68 | Ramgarh | 0.77 |
| Latehar | 0.70 | Dhanbad | 0.77 |
| Palamu | 0.70 | Simdega | 0.79 |
| Saraikela-Kharsawan | 0.71 | PurbiSinghbhum | 0.80 |
| Pakur | 0.71 | Jharkhand | 0.72 |

Source: Compiled using Census of India 2011

• **District-wise Literacy Rate Among Different Social Groups**

According to 2011 census, the total population constitutes of 26.2 per cent of the Scheduled Tribe (ST) population and 12.1 percent of the Scheduled Caste (SC) population respectively. Out of which 57.1 percent of the ST population and 55.8 per

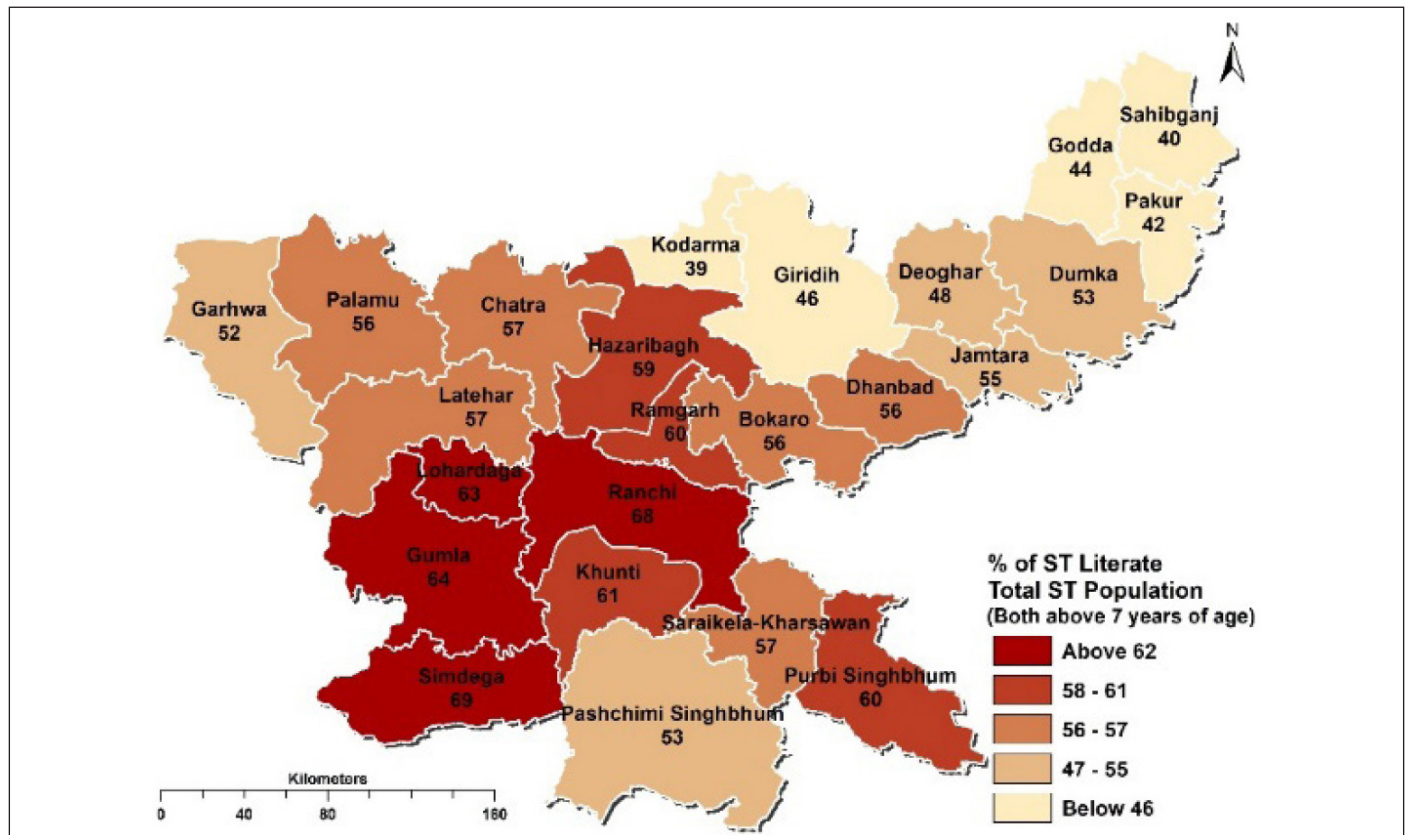
cent of the SC population are literate. Among these districts, Ranchi district has the highest SC literates (67.62 per cent) while Chatra district has the lowest (43.69 per cent). And again, Ranchi district turns out to have the highest ST literates (67.91 per cent) while Pakur district has the lowest (47.71 per cent).

Table 11.2: Literacy Rates 2011 by Location and Social Groups (in percent)

| | Male | Female | Total |
|------------------------|------|--------|-------|
| Scheduled Caste | | | |
| Total | 67 | 44 | 56 |
| Rural | 64 | 41 | 53 |
| Urban | 77 | 57 | 67 |
| Scheduled Tribe | | | |
| Total | 68 | 46 | 57 |
| Rural | 67 | 44 | 55 |
| Urban | 83 | 68 | 75 |

Source: Calculated from Census 2011

Map 11.4: District-wise Scheduled Tribe Literacy Rate in Jharkhand



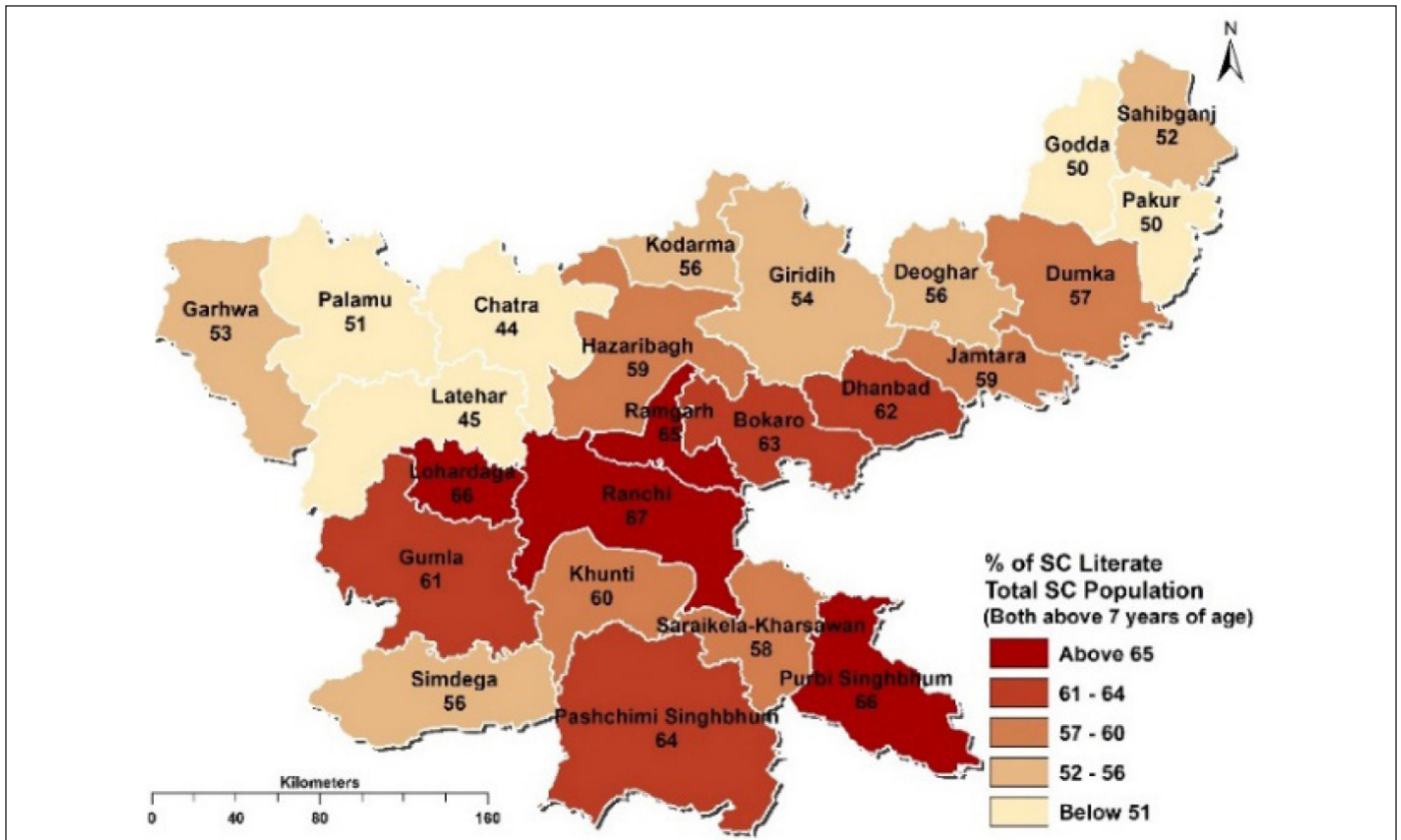
Source: Compiled using Census of India 2011

As per 2011 Census, the female literacy rate among the SCs of the state is 44.2 per cent and of STs is 46.2 per cent. A high proportion of SC population in the state is present in Garhwa, Palamu, Chatra and in the other nearby districts, but the literacy rate of female SC population in these districts is very low (Garhwa- 4.85 per cent, Chatra- 34.71 per cent and Palamu-39.37 per cent) as against the State average

(44.20 per cent).

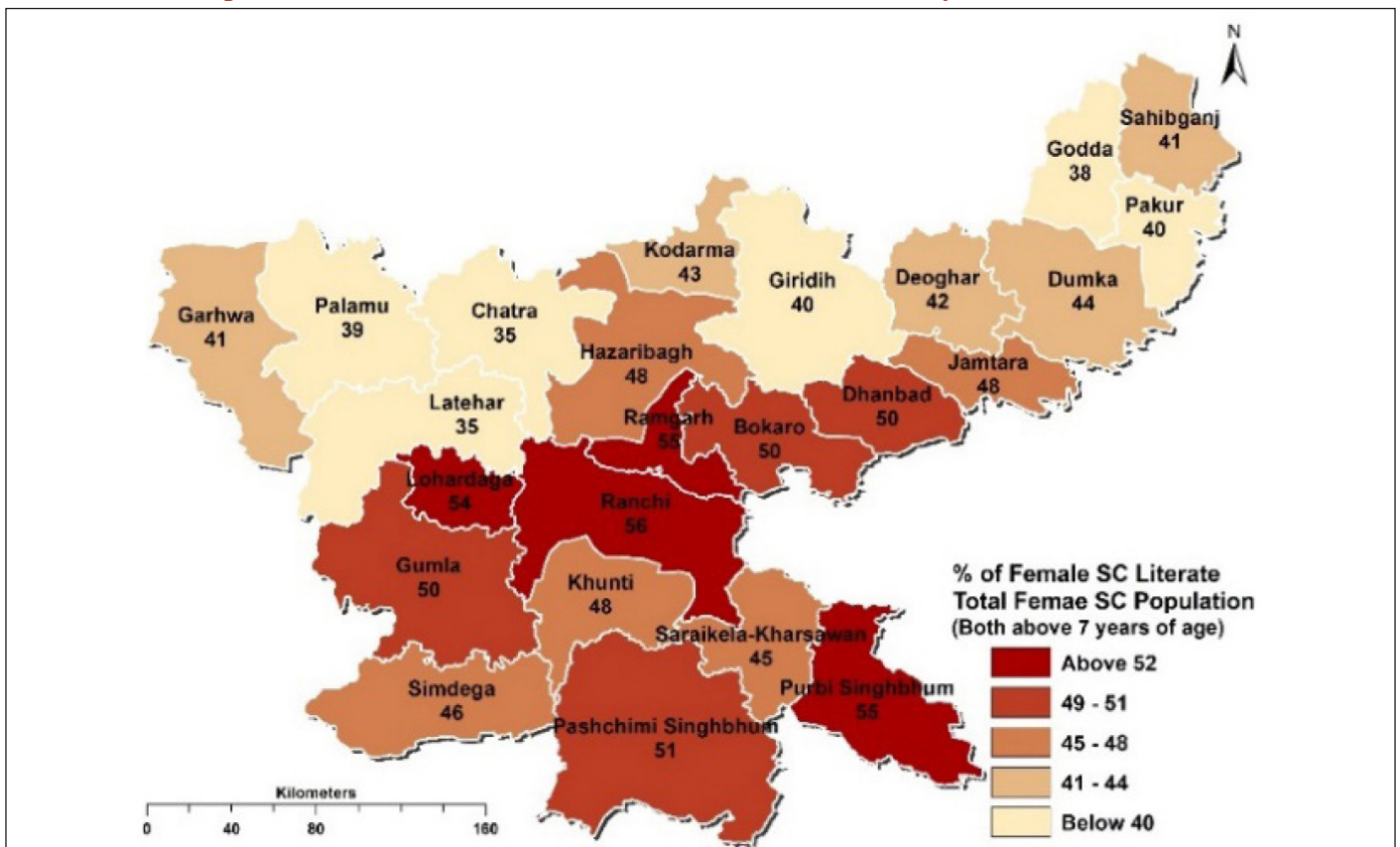
Similarly, districts like Khunti and Paschimi Singhbhum where the proportion of ST population is more than 67 per cent has been recorded the lowest literacy rate among the female ST population (Khunti-51 percent and Paschimi Singhbhum- 41 percent) in the state.

Map 11.5: District-wise Scheduled Caste Literacy Rate in Jharkhand



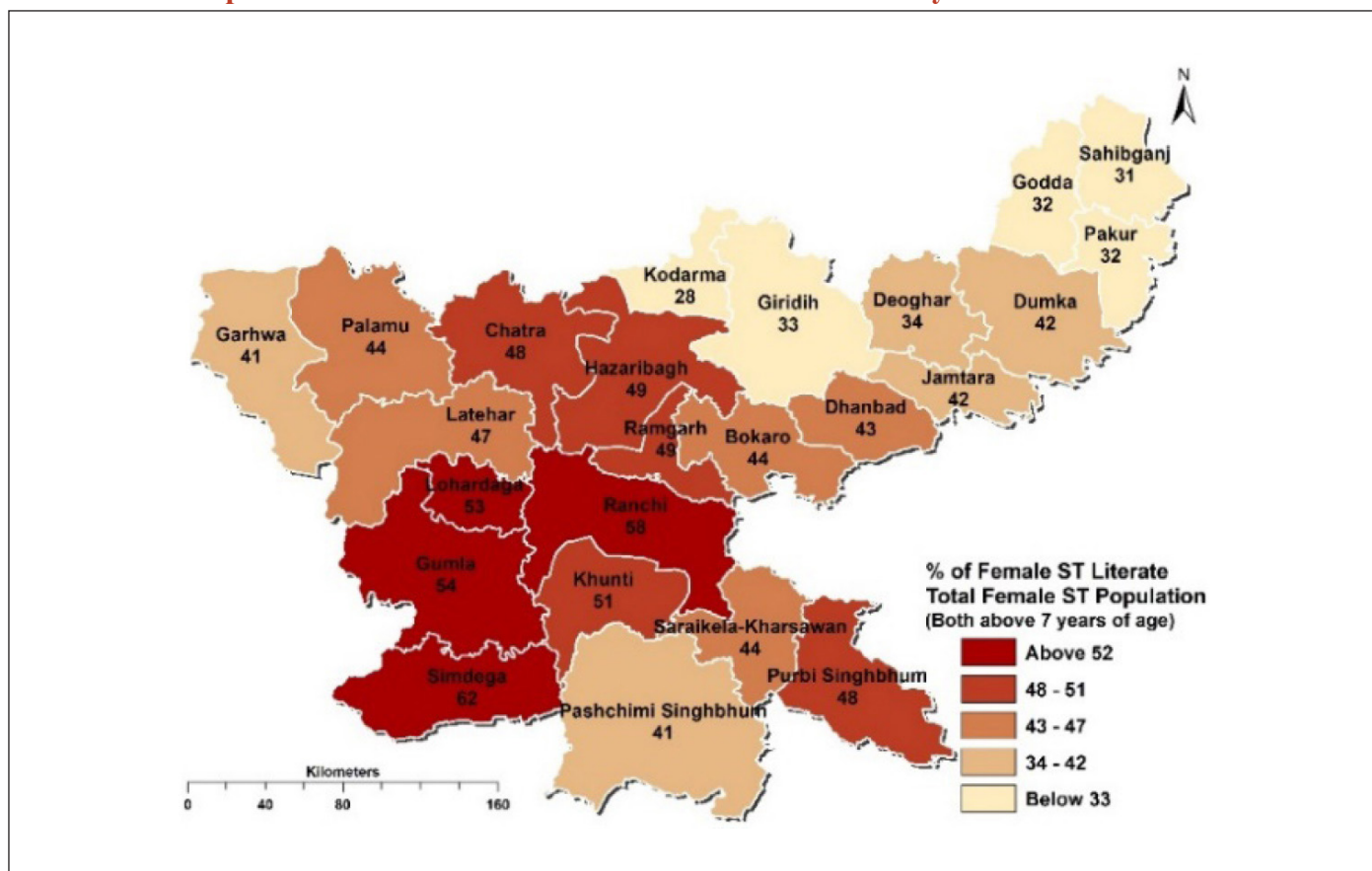
Source: Compiled using Census of India 2011

Map 11.6: District-wise Female Scheduled Caste Literacy Rate in Jharkhand



Source: Compiled using Census of India 2011

Map 11.7: District-wise Female Scheduled Tribe Literacy Rate in Jharkhand



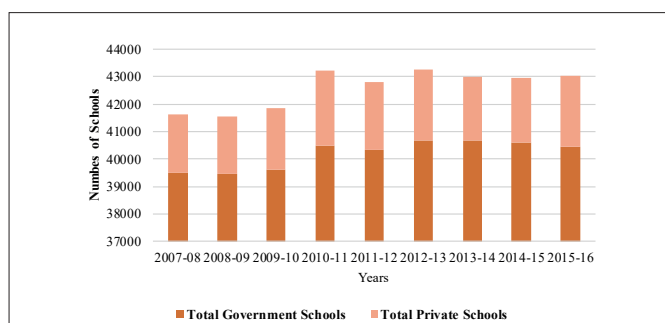
Source: Compiled using Census of India 2011

Elementary and Secondary Education

- **Total Number of Schools² under Elementary Education**

The total number of government schools in the state has increased from 39,511 to 40,437 between 2007-08 and 2015-16 while the total number of private schools has increased from 2124 to 2586 during the same period. But the growth in the number of government schools has shown an increase by 2.34 percent while the number of private schools grew by 21.75 percent during 2007-08 and 2015-16. Thus, the number of private schools has shown a higher increase than the government schools over these years.

Figure 11.1: Total Number of Schools under Elementary Education between the 2007-08 and 2015-16



Source: District Information System for Education (DISE), Elementary Education: Trends, 2015-16

- **Gender based Gross Enrolment Ratio in different Type of Schools**

The gross enrolment ratio in the state has increased at all levels of school education

2 Total number of Schools= Primary only, primary with U.P, primary with upper primary and Sec. and Hr. Sec., upper primary only, U.P with Sec. and Hr. Sec., Primary with U.P and sec., U.P with Sec.

during all the three consecutive years, except for primary level during 2014-15, wherein it decreased to 108.4 but again showed a slight increase and stood at 109.22 in 2015-16. In the higher secondary level, the gross enrolment ratio has been low in comparison to the

other three levels of schooling.

It is quite evident from the table below that the gross enrolment ratio among the girls is more than the boys at all school levels. And again, the gross enrolment ratio at primary level is more than the other stages of school education.

Table 11.3: Gross Enrolment Ratio³ in 2013-14, 2014-15 and 2015-16

| | 2013-14 | 2014-15 | 2015-16 |
|------------------|---------|---------|---------|
| Primary | 110.23 | 108.4 | 109.22 |
| Upper Primary | 95.25 | 99.97 | 102.73 |
| Elementary | 105.13 | 105.58 | 107.08 |
| Secondary | 70.14 | 71.86 | 73.65 |
| Higher Secondary | 43.96 | 48.69 | 48.32 |

Source: U-DISE School Education India 2013-14, 2014-15 and 2015-16

Table 11.4: Gender based Gross Enrolment Ratio in 2013-14, 2014-15 and 2015-16

| School Level | Gender | 2013-14 | 2014-15 | 2015-16 |
|------------------|--------|---------|---------|---------|
| Primary | Boys | 109.57 | 107.77 | 108.56 |
| | Girls | 110.92 | 109.08 | 109.92 |
| Upper Primary | Boys | 91.7 | 95.81 | 97.75 |
| | Girls | 99.09 | 104.5 | 108.19 |
| Elementary | Boys | 103.44 | 103.72 | 104.94 |
| | Girls | 106.93 | 107.56 | 109.36 |
| Secondary | Boys | 68.67 | 69.35 | 70.7 |
| | Girls | 71.79 | 74.64 | 76.93 |
| Higher Secondary | Boys | 43.91 | 48.37 | 47.75 |
| | Girls | 44.02 | 49.06 | 48.98 |

Source: U-DISE School Education India 2013-14, 2014-15 and 2015-16

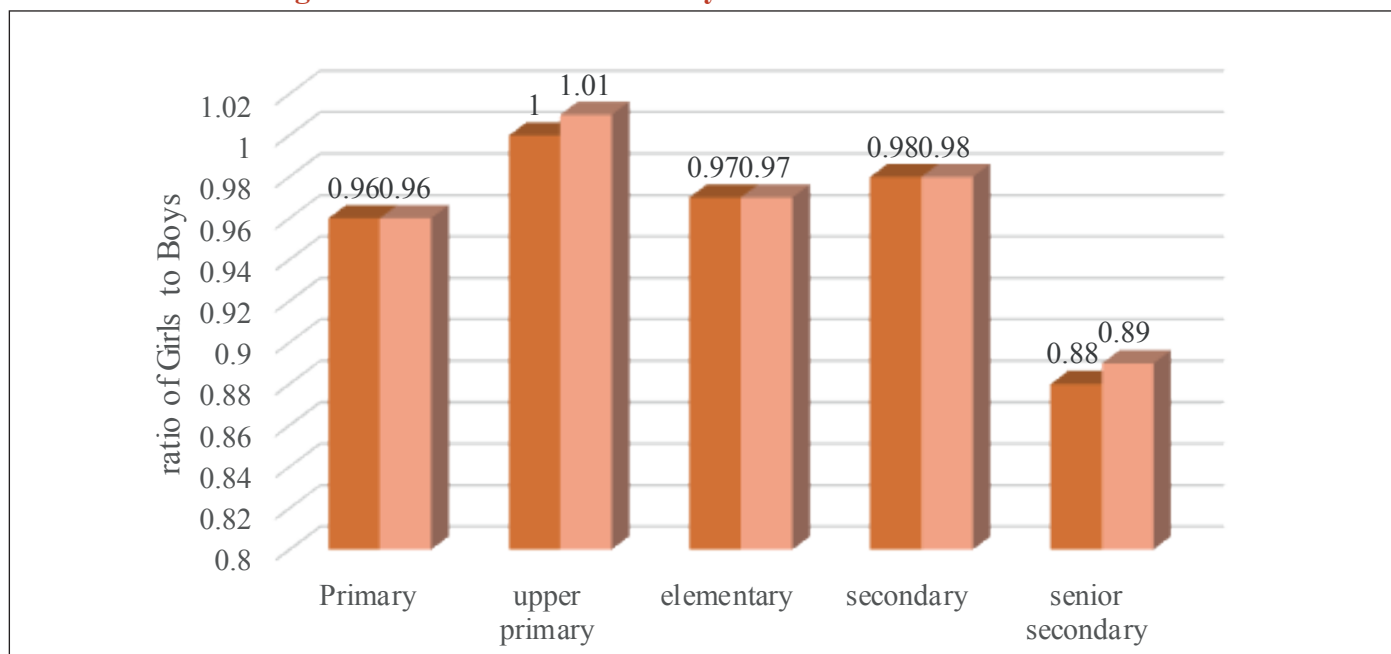
• **Ratio of Girls to Boys' Enrolment in Different Type of Schools**

The ratio of girls to boys' enrolment has not undergone much change during the two consecutive years, that is, 2014-15 and 2015-16. The enrolment in primary and elementary

schools has remained the same with 0.96 and 0.97 respectively. In Upper Primary, Secondary and Higher Secondary Schools, the girls to boys' ratio has increased only by 0.1 points.

3 Total Enrolment in primary education (Grades I-V), regardless of age, expressed as a percentage of the eligible official primary school-age population (6 to 10+ years) in a given school year.

Figure 11.2: Ratio of Girls to Boys' Ratio in 2014-15 and 2015-16



Source: District Information System for Education (DISE)

Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

Rastriya Madhyamik Shiksha Abhiyan (RMSA) has been launched by the Central Government to strengthen the secondary education in the country. Under this scheme, the facilities of secondary and senior secondary schools are to be provided within the radius of 5 kms and 7-8 kms respectively. Girls' hostels, Computer Literacy and Computer Aided learning (ICT), Vocational Education (V.E.) and Inclusive Education for Disabled at Secondary Stage (IEDSS) are included in this scheme.

In Jharkhand, 1189 middle schools have been upgraded to secondary schools by 2016-17. To meet the challenges of quality education, the provisions of laboratory, library, furniture and proper infrastructures and other facilities in the secondary and senior secondary schools are essential. Along with the construction of additional classrooms in newly upgraded 280 higher secondary or intermediate level schools, strengthening of laboratory/library and Smart Education (ICT/Smart Classes/Digital

Life Classes) is highly essential. Under Rashtriya Madhyamik Siksha Abhiyan (RMSA) programme, the department aims to provide the required facilities but it appears that a gap still exists which cannot be filled by Rashtriya Madhyamik Siksha Abhiyan (RMSA) alone. Hence state is fulfilling this gap under state plan.

- **Enrolment by Stream in Higher Secondary Level**

The proportion of enrolment of girls in Arts stream in both standard XI and XII is more than that of boys during the previous three consecutive years. But the annual percentage growth of enrolment of boys is more than that of girls in both the standards (with the exception of vocational stream where the case is otherwise). Although there has been a positive percentage growth in enrolment of both girls and boys in standard XI between 2012-13 to 2013-14 and 2013-14 to 2014-15, but from 2014-15 to 2015-16 there has been a decrease in the percentage in the enrolment of the students. A similar picture can be seen in case of both girls and boys in standard XII.

Except in the vocational stream, a positive percentage growth in enrolment of girls (35.4 per cent) has been recorded in standard XII. In 2015-16, the transition

and repetition rate of XI and XII standard decreased which can be one of the reasons of the decrease in the enrolment rate.

Table 11.5: Percentage Growth in Enrolment by stream at Higher Secondary level

| Grade XI | | | | | | |
|------------|---------|---------|---------|---------|---------|---------|
| Stream | Girls | | | Boys | | |
| | 2013-14 | 2014-15 | 2015-16 | 2013-14 | 2014-15 | 2015-16 |
| Arts | 225.48 | 76.67 | -14.89 | 244.22 | 80.79 | -12.97 |
| Science | 80.79 | 92.21 | -5.12 | 138.90 | 41.93 | -5.00 |
| Commerce | 192.73 | 60.59 | -6.71 | 216.75 | 56.23 | -5.96 |
| Vocational | 87.32 | 6.27 | -10.38 | 20.57 | 9.90 | -39.69 |
| Grade XII | | | | | | |
| Stream | Girls | | | Boys | | |
| | 2013-14 | 2014-15 | 2015-16 | 2013-14 | 2014-15 | 2015-16 |
| Arts | 275.19 | 90.49 | -9.42 | 287.66 | 98.67 | -8.06 |
| Science | 165.57 | 79.01 | -6.31 | 177.22 | 42.08 | -0.14 |
| Commerce | 207.84 | 71.55 | -2.59 | 247.23 | 80.31 | -2.30 |
| Vocational | 236.00 | 14.29 | 35.42 | -43.19 | 82.12 | -17.04 |

Source: Secondary Education State Report card 2012-13 to 2015-16, DISE

• **Gender and Social Category Wise Enrolment**

The percentage of enrolment of the Scheduled Tribe (ST) students is higher than the Scheduled Caste (SC) and Minority students, as their overall share in population is higher than SCs who constitute a miniscule in Jharkhand. Among STs, the enrolment is higher at the primary level than other levels. But the rate of enrolment has decreased at the primary and secondary levels during 2014-15 to 2015-16. Otherwise at other educational levels, the enrolment rate of ST students has increased.

Among the Scheduled Castes, the highest number of students get enrolled at the primary level and their enrolment has increased between 2014-15 and 2015-16 but at other educational levels the enrolment of students has decreased. The enrolment rates of Muslim students at the primary and upper primary levels are 12.48 per cent and 12.22 per cent respectively. Whereas the enrolment at secondary and higher secondary is only 8.44 per cent and 5.33 per cent respectively. Thus, evidently, the proportion of Muslim students' enrolment for higher education is low.

Table 11.6: Social Category Wise Enrolment at Different School Levels

| Schools | Gender | Scheduled Caste | | Scheduled Tribe | | Muslim | |
|------------------|--------|-----------------|---------|-----------------|---------|---------|---------|
| | | 2014-15 | 2015-16 | 2014-15 | 2015-16 | 2014-15 | 2015-16 |
| Primary | Boys | 15.35 | 15.32 | 29.92 | 29.56 | 12.54 | 12.24 |
| | Girls | 15.31 | 15.39 | 29.92 | 29.62 | 12.97 | 12.74 |
| | Total | 15.33 | 15.36 | 29.92 | 29.59 | 12.75 | 12.48 |
| Upper Primary | Boys | 13.97 | 13.75 | 25.27 | 25.38 | 12.05 | 11.57 |
| | Girls | 13.41 | 13.35 | 25.24 | 25.42 | 13.6 | 12.87 |
| | Total | 13.69 | 13.55 | 25.26 | 25.4 | 12.83 | 12.22 |
| Secondary | Boys | 12.74 | 12.34 | 23.18 | 22.97 | 8.05 | 7.7 |
| | Girls | 12.42 | 11.86 | 23.33 | 22.96 | 9.38 | 9.2 |
| | Total | 12.58 | 12.1 | 23.25 | 22.96 | 8.7 | 8.44 |
| Higher Secondary | Boys | 10.79 | 10.99 | 19.75 | 20.95 | 5.52 | 5.42 |
| | Girls | 10.87 | 9.83 | 22.52 | 23 | 6.77 | 5.24 |
| | Total | 10.83 | 10.44 | 21.05 | 21.92 | 6.11 | 5.33 |

Source: U-DISE School Education India 2014-15 and 2015-16

• **Transition Rate⁴**

The transition rate from elementary to secondary in 2015-16 was 79.2 per cent. Although the transition rate had increased between 2012-13 and 2013-14, it has decreased during 2014-15 and 2015-16, thus showing a lower share of students continuing their education from elementary to secondary level. The

case is similar to the transition from secondary to higher secondary level. The transition rate has reduced by 1.53 percentage points between 2014-15 and 2015-16. It is only at the primary to upper primary level that the transition rate has increased from 82.75 per cent to 84.22 per cent, that is, an increase of 1.45 percentage point between 2014-15 and 2015-16.

Table 11.7: Transition Rates at Different Educational Levels

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 |
|-------------------------------|---------|---------|---------|---------|
| Primary to Upper Primary | - | - | 82.75 | 84.22 |
| Elementary to Secondary | 81.55 | 81.93 | 79.86 | 79.2 |
| Secondary to Higher Secondary | 60.59 | 59.88 | 59.35 | 57.82 |

Source: DISE: State Secondary Education Report Card 2012-13, 2013-14, 2014-15 and 2015-16

• **Dropout and Repetition Rate in Secondary Education**

The dropout rate of standard VIII, IX and X has increased between 2014-15 and 2015-16 in the State. A high rate of dropouts has been recorded

among the students of standard Xth (40.96 per cent) in 2015-16. Although it has been recorded that the highest number of students who repeat are from 12th standard but over the past three years, a decrease in the repetition rate has been seen. In 2013-14, the

⁴ Transition rate: Number of pupils admitted (new entrants) to the first grade of a higher level of education in a given year, expressed as a percentage of number of pupils enrolled in the final grade of the lower level of education (i.e. gradeV) in the previous year.

repetition rate⁵ in standard XII was 4.56 per cent which decreased to 2.27 and 1.81 per cent in 2014-15 and 2015-16 respectively.

With an aim to reduce the dropout rate of students who belong to economically backward sections, a Centre Sectoral Scheme “Support for Educational Development including Teachers Training and Adult Education (National Means cum Merit Scholarship)” is operational. The Government of

India finances 100 per cent cost of the scheme. A scholarship of Rs. 6000 per annum (Rs. 500 per month) per student is awarded to selected students from classes IX to XII in Government, Government aided and local body schools. Students whose parental income from all sources is not more than Rs. 1,50,000 are eligible to avail the scholarships. The students are selected through an examination conducted by the State Government.

Table 11.8: Dropout Rate and Repetition Rate in Secondary Education

| Class | Dropout Rate | | | Repetition Rate | | |
|-------|--------------|---------|---------|-----------------|---------|---------|
| | 2013-14 | 2014-15 | 2015-16 | 2013-14 | 2014-15 | 2015-16 |
| VIII | - | 19.42 | 20.16 | - | 0.71 | 0.64 |
| IX | 1.34 | 7.83 | 8.91 | 2.6 | 1.52 | 1.51 |
| X | 37.91 | 39.72 | 40.96 | 2.22 | 0.93 | 1.22 |
| XI | - | - | 3.41 | 2.7 | 0.8 | 1.14 |
| XII | - | - | - | 4.56 | 2.27 | 1.81 |

Source: DISE: State Secondary Education Report Card 2013-14, 2014-15 and 2015-16

Box 11.1: Zero Dropout Panchayats

With the aim of making all the panchayats of the state as zero dropout panchayats, 1000 new panchayats have become a part of this *abhiyan*. Already 1500 panchayats have been declared as zero dropout in the State. The panchayats have been advised to hoist blue flags on reaching the target. Further, the district officers are held responsible in case of negligence in it.

• Pupil-Teacher Ratio

As per Unified District Information System for Education (UDISE), the Pupil-Teacher Ratio (PTR) at national level for elementary and secondary schools is 24:1 and 27:1 respectively. It indicates that ideally for elementary schools, there should be 24 students for every 1 teacher and for secondary schools there

should be 27 students for every 1 teacher. The Right of Children to Free and Compulsory Education (RTE) Act, 2009 in its Schedule lays down PTR for primary level as 30:1 and for upper primary level 35:1. However, the DISE report states that the pupil-teacher ratio in most of the States and UTs is found to be satisfactory.

In Jharkhand, at primary level, the pupil teacher ratio has decreased from 30:1 to 27:1 between 2013-14 and 2015-16 which is satisfactory. But in the secondary and higher secondary levels, the pupil-teacher ratio has far exceeded the national level. Although between 2013-14 and 2015-16, the ratio has decreased by a small number but in higher secondary level it has increased at an alarming rate from 53:1 to 68:1 and then to 78:1 between 2013-14, 2014-15 and 2015-16 respectively.

5 Repetition Rate (grade specific): Proportion of pupils from a cohort enrolled in a given grade at a given school year who studies in the same grade in the following school year.

Table 11.9: Pupil Teacher Ratio

| | 2013-14 | 2014-15 | 2015-16 |
|--------------------------------|---------|---------|---------|
| Primary** | 30 | 29 | 27 |
| Upper Primary** | 20 | 20 | 19 |
| Secondary ⁺ | 68 | 61 | 62 |
| Higher Secondary ⁺¹ | 53 | 68 | 78 |

Source: U-DISE School Education India 2014-15 and 2015-16

• **Teachers with Professional Qualification**

Teachers play the most vital role in a school. He/She is an educator, who spreads knowledge among children. So, for that to happen, teachers are also required to fulfill certain eligibility to be able to teach the students. There are basically two types of teaching staff, regular and contractual. In the state, the proportion of male teachers is more than the female teachers. Among the regular teachers having postgraduate degrees, the number of male teachers

is substantially high. It is followed by graduate, then, below graduate and very few number of teachers have the degree of post-doctoral. Also, the proportion of both male and female regular teachers has decreased between 2014-15 and 2015-16. It is only the regular teachers with post-doctoral degrees whose proportion has increased.

The proportion of contractual teachers are less as compared to regular teachers, and among them, the proportion of male teachers is more than female teachers. As to the male contractual teachers who are below graduate, their number has decreased otherwise there has been an increase in the number of male contractual teachers with higher qualification. Moreover, the proportion of female contractual teachers across all types of educational qualification has increased between 2014-15 and 2015-16.

Table 11.10: Teachers Employed at Regular and Contractual Basis

| | Regular | | | | Contractual | | | |
|----------------|---------|---------|---------|---------|-------------|---------|---------|---------|
| | Male | | Female | | Male | | Female | |
| | 2014-15 | 2015-16 | 2014-15 | 2015-16 | 2014-15 | 2015-16 | 2014-15 | 2015-16 |
| Below Graduate | 1160 | 664 | 662 | 342 | 133 | 130 | 45 | 91 |
| Graduate | 5621 | 5026 | 2873 | 2754 | 596 | 769 | 135 | 409 |
| Post Graduate | 7516 | 7191 | 3816 | 3633 | 205 | 579 | 62 | 438 |
| M.Phil/Ph.D | 650 | 604 | 305 | 280 | 14 | 54 | 6 | 19 |
| Post Doctoral | 39 | 41 | 14 | 15 | 0 | 5 | 0 | 3 |
| No-Response | 22 | 0 | 4 | 1 | 0 | 0 | 0 | 0 |

Source: Secondary Education Report card 2014-15 and 2015-16, DISE

• **Infrastructure Facilities in Elementary Schools**

Over a decade, the infrastructure facility of the

schools has shown a significant improvement. The percentage of schools with girls' and boys' toilet facility in 2015-16 was around 96 percent. Thus, it

^{1**} Excluding Teachers teaching in Secondary and Higher Secondary classes in composite schools.

⁺ Teachers by Classes taught

would appear that the target of providing 100 per cent toilets in the schools has almost been achieved. The percentage of schools with computer facility has also increased by 5.1 percentage point. The schools

with Ramp have shown the highest increase of 69.7 per cent. Therefore, there has been an overall improvement in the infrastructural facility in the schools of Jharkhand.

Table 11.11: Infrastructure Facilities in Elementary Schools

| Facility Indicators | 2005-06 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Student -Classroom Ratio | 62 | 60 | 54 | 47 | 37 | 33 | 30 | 28 | 27 | 26 |
| % Schools with drinking Water | 71.7 | 70.7 | 71.7 | 85.4 | 87.4 | 90 | 90.8 | 91.2 | 91.8 | 93.5 |
| % Schools with Common Toilet | 21.4 | 34.7 | 40.9 | 30.4 | - | - | - | - | - | - |
| % Schools with Boy's Toilet | - | - | - | 32.7 | 52.1 | 75.4 | 60.8 | 89.6 | 90.1 | 96.5 |
| % Schools with Girl's Toilet | 11.6 | 20.7 | 28.2 | 49.3 | 60 | 68.2 | 83.7 | 84.8 | 84.2 | 96.8 |
| % Schools with Boundary wall | 28.5 | 23.5 | 22.5 | 21.5 | 25.2 | 26.5 | 25 | 26.9 | 30.5 | 31.1 |
| % Schools with Playground Facility | - | - | - | 28 | 31 | 30 | 31.3 | 32 | 32.7 | 40.5 |
| % Schools with Ramp | 4.3 | 5.6 | 7 | 14 | 31.2 | 36.6 | 63.6 | 67.5 | 60.1 | 74 |
| % Schools having electricity | - | - | 6.8 | 7.5 | 9.8 | 10.4 | 11.1 | 12 | 16.9 | 18.4 |
| % Schools with computer | 4.7 | 5.5 | 5.8 | 6 | 7.2 | 8.1 | 8.3 | 8.7 | 9.3 | 9.8 |
| % Schools providing Mid-Day Meal ³³ | - | - | - | 95 | 92.3 | 97.1 | 96.8 | 97.5 | 98 | 98.2 |

Source: DISE- Elementary Education: Trends

Additional State Assistance for the Mid Day Meal Grant and Supplementary Nutrition to Children under the Mid Day Meal Scheme

The Midday Meal Scheme is a school meal programme of the Government of India designed to improve the nutritional status of school-age children

nationwide. The programme supplies free lunch on the school working days for children in primary and upper primary classes in government schools, government aided schools, and alternate innovative education labour project schools run by the Ministry of Labour, Government of India.

The State government has decided to increase the rate of honorarium paid to the cook cum help. Initially, Central Government had fixed the rate at Rs. 1000 per month for 10 months a year, which the State Government has increased to Rs. 1500 per month for 10 months a year. Further, under the MDM scheme, it has been decided to provide LPG connections for cooking in the Schools. Generally, cooking is done by using wood but it is hazardous to the health of children and the cook. Thus, Government has come up with this initiative.

The Supplementary Nutrition is one of the six

services provided under the Integrated Child Development Services (ICDS) Scheme which is primarily designed to bridge the gap between the Recommended Dietary Allowance (FDA) and the Average Daily Intake (ADI). During 2017-2018, approximately 32 lakh children in Jharkhand were to be covered under this scheme, and it is expected that on an average 23 lakh children at primary level and 9 lakh children at upper primary level will take the meal on any school day. Along with the cooked food the children will be given one egg/fruit thrice a week.

Table 11.12: District wise Total Number of Students Approved by PAB under the MDM Scheme

| Sl. No. | Name of District | Total no. of schools | Approved by PAB 2017-2018 | | |
|---------|--------------------|----------------------|---------------------------|---------------|-------------|
| | | | Primary | Upper Primary | NCLP/STCs |
| 1 | Ranchi | 2488 | 133756 | 59236 | 888 |
| 2 | Khunti | 1017 | 45713 | 18905 | 0 |
| 3 | Lohardaga | 586 | 33042 | 16348 | 0 |
| 4 | Gumla | 1697 | 97781 | 36830 | 0 |
| 5 | Simdega | 1074 | 48894 | 21918 | 0 |
| 6 | PurbiSinghbhum | 1997 | 82317 | 45092 | 0 |
| 7 | SaraikelaKharsawan | 1655 | 55920 | 37129 | 0 |
| 8 | PaschimiSinghbhum | 2252 | 130849 | 52233 | 641 |
| 9 | Palamu | 2574 | 169222 | 74465 | 0 |
| 10 | Latehar | 1275 | 56722 | 25798 | 0 |
| 11 | Garhwa | 1557 | 83122 | 36115 | 910 |
| 12 | Hazaribagh | 1611 | 95634 | 47044 | 541 |
| 13 | Ramgarh | 700 | 39564 | 23333 | 0 |
| 14 | Koderma | 723 | 48412 | 23849 | 0 |
| 15 | Chatra | 1793 | 95714 | 43967 | 0 |
| 16 | Giridih | 3362 | 163278 | 64642 | 0 |
| 17 | Dhanbad | 1834 | 102888 | 53870 | 0 |
| 18 | Bokaro | 1731 | 81728 | 45283 | 0 |
| 19 | Dumka | 2501 | 84675 | 33577 | 829 |
| 20 | Jamtara | 1167 | 57840 | 24950 | 0 |
| 21 | Sahibganj | 1552 | 92069 | 28710 | 2550 |
| 22 | Pakur | 1061 | 70317 | 24816 | 950 |
| 23 | Godda | 1726 | 99515 | 40626 | 0 |
| 24 | Deoghar | 2092 | 94707 | 46737 | 0 |
| Total | | 40025 | 2063679 | 925474 | 7309 |

Source: Mid Day Meal Department, Government of Jharkhand

Under the state of supplementary nutrition plan of Jharkhand, children are provided egg for completing protein requirement. Students who do not take egg in their diet due to some reason are provided fruits equivalent to the amount of egg. The responsibility of maintaining the quality of plan is on *Saraswati Vahini* and school management committee. In respect to the fruits or eggs being provided to students, *Saraswati Vahini* is given Rs. 4 per student per day for three days in a week.

As per the meeting held by PAB-MDM (Programme Approval Board) for the financial year 2017-18, a total of 40025 schools are being covered for the Mid Day Meal support. The highest number of schools covered are from Giridih (3362) district, followed by Palamu (2574) and Dumka (2501) districts. At primary level, 20,63,679 students will be covered under the scheme and, at upper primary level, 9,25,474 students will be covered. Palamu district has covered the highest number of students under the MDM scheme at primary and upper primary level, whereas Lohardaga district has been able to cover the least number of students both at primary

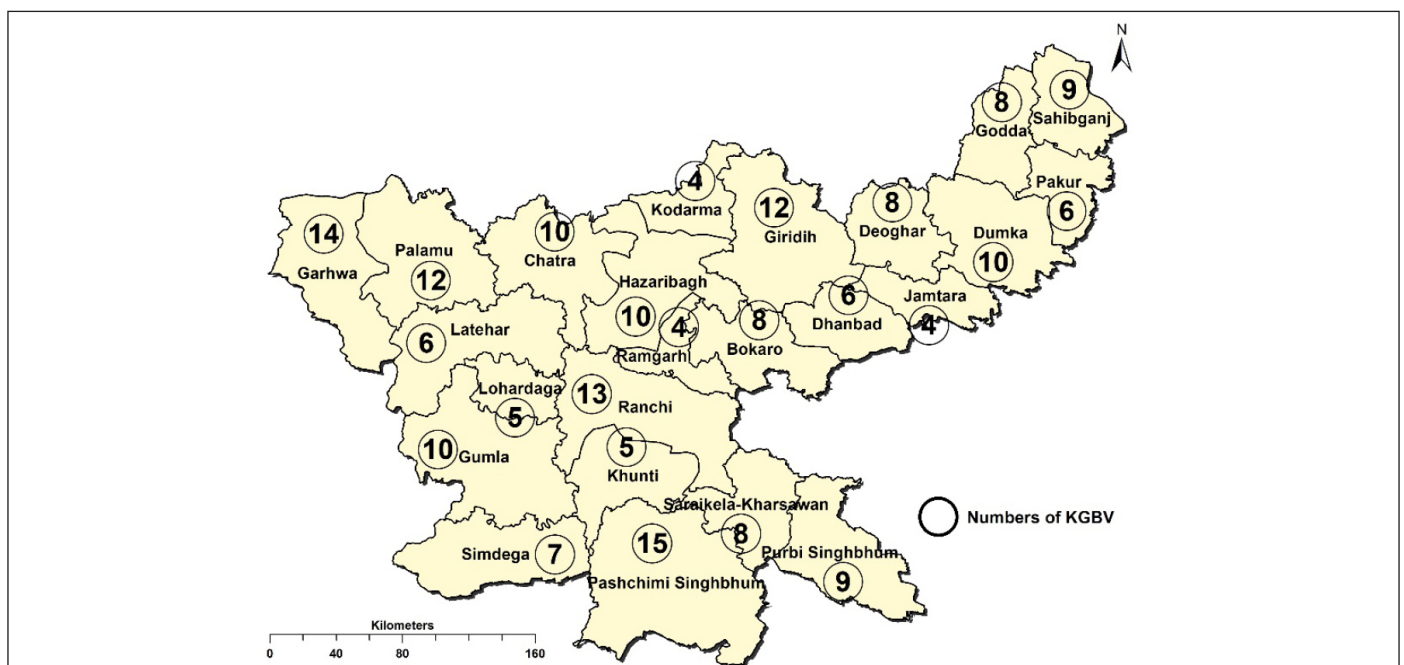
and at upper primary level.

Under the National Child Labour Project/ Special Training Centres (NCLP/STCs), 7,309 students have been covered. This scheme has been able to cover only 6 district in the State. Among these six districts, the highest number of students covered is from Sahibganj (2550) district followed by Pakur (950) and Ranchi (888) district.

Kasturba Gandhi Balika Vidhyalaya

Kasturba Gandhi Balika Vidhyalaya (KGBV) is an initiative to boost education among girls from BPL families and among those who belong to scheduled tribes, scheduled castes, other backward classes and minority class in rural areas of the country. In Jharkhand, the KGBV has spread across all the 24 districts of the state. There is a total of 203 KGBV schools in Jharkhand. Paschimi Singhbhum (15) has the highest number of KGBV schools in the state, followed by Ranchi (13), Giridih and Palamu (12 each). Ramgarh and Jamtara have the lowest number of KGBV Schools with 4 each.

Map 11.8: District-wise Kasturba Gandhi Balika Vidhyalaya (KGBV) in Jharkhand



Source: Compiled using data from Jharkhand Education Project Council (JEPC)

Certain State Government Initiatives along with Jharkhand Education Project Council to strengthen KGBV

- The State Government has decided to increase the intake capacity at elementary level from 100 to 150 in each KGBV so that it is able to fill the vacant seats at higher level. The admission against the increased seat has started from 2015-16 itself. For this, the additional financial assistance will be provided by the state.
- For KGBV there are no Government of India norms for provision of boundary walls, transformer etc. Thus, the State Government is providing grant to JEPC for tablets, gym, and transformer as per requirement for KGBV.
- To encourage and promote Girls' Education at secondary and senior secondary level, an initiative has been taken to provide free education to every girl up to intermediate level, along with free cycles, textbooks, uniforms etc. Also, hostel facilities will be improved by upgrading the Kasturba Gandhi Awaishya Vidyalaya.

Primary Education Schemes

Status of Ongoing Schemes

- **Distribution of free text-books**

Free text books are to be distributed to students who are not covered under the SSA. The SSA itself has started this scheme for the girls belonging to all categories and boys belonging to SC/ST categories of class I-VIII. For the financial year 2017-18, nearly 12.50 lakh children are to be benefited from the scheme. The state government is providing text books to OBC and General Category boys from Class I to VIII.

- **Distribution of free Uniforms to APL boys grant to JEPC**

Initially under Sarva Siksha Abhiyan uniforms were distributed to all students of class 1 to 8 except for APL boys who had to pay Rs.400/-. From the financial year 2017-18, the Government has declared to provide free uniforms to APL category boys too. Thus, approximately 4 lakh APL boys are to be covered in the year 2017-18.

- **Mukhyamantri Vidyalakshmi Yojana (MVY)**

The objective of the scheme is to encourage education among girls belonging to SC/ST communities in middle schools. The scheme aims to increase the enrolment rate, reduce the dropout rate and ensure their retention up to 14 years of age. It covers all the SC/ST girls who have passed class V from the State Government and Government-aided schools in the academic year 2015-16 and thereafter. The eligible girl child will get an amount of Rs. 2000, which will be deposited under the term deposit/fixed deposit in a public sector bank or in a post office in the name of the girl. The term/period of the deposit will be counted from the date of deposit to the date on which the girl child enrolls herself in class IX in a Government/ Government-aided/ recognized high school.

- **Jharkhand Balika Awasiya Vidyalaya (JBAV) Yojna Grant to JEPC**

To encourage girls' education among families belonging to minority communities and BPL category in the state, the State Government has established 57 Jharkhand Balika Awasiya Vidyalayas (JBAV) with a capacity of 350 children per school. It will give educational opportunities to 19950 dropout girls and will ensure that they get quality education up to 12th standard. A minimum of 75per cent of the enrolment in JBAV will be reserved for girls from the target groups (i.e., ST, SC, Minority) and the remaining 25per cent will remain open for girls belonging to the BPL category.

- **Free Distribution of School Kit to Children Grant to JEPC**

From 2015-16 onwards, the Government of India and Jharkhand provide free notebooks, textbooks, writing materials, school bag, pair of shoes and socks to children studying in government schools. Mostly children are found to give up education because they cannot afford to buy the required school materials. Thus, the Centre and State Government have come up with an initiative to provide free schools kits to children. For the financial year 2017-18, 35 lakh children are said to be benefitted from the scheme.

- **Strengthening Elementary Schools**

The elementary schools are said to be provided with running water facility in phased manner during 2017-18.

- **Strengthening of Primary Teacher Training Colleges**

It has been proposed to strengthen and develop the existing District Institutes of Education and Training (DIETs) and Primary Teachers Training Colleges (PTTCs) by constructing/renovating the college buildings and hostels and developing the existing laboratories, computer centres and resource rooms. Further, the Government of India has sanctioned four new District Institute of Education and Training (DIET) in Pakur, Koderma, Khunti and Dumka. These new teacher training institutions will be setup during the financial year 2017-18.

- **Teachers' Award (Primary and Secondary)**

Teachers' Award is a reward given to the teachers in recognition for their services of

imparting quality education in accordance to the pattern of National Teachers Award Scheme. Five primary school teachers from district level and five teachers from block level are awarded under this scheme. The scheme would be implemented by Zila Parishad and Panchayat Samiti at the district and the block level respectively.

Under this scheme 2 secondary school teachers of each district will get State Award of Rs. 25,000/-, 5 secondary school teachers of each district will get Rs. 15,000/- and 5 secondary school teachers of each sub-division will get Rs. 5,000/- cash award.

NEW SCHEMES

- **Gyanoday Yojna (Primary and Secondary)**

By taking into consideration the NITI Ayog parameters, which suggests measuring the performance of every state under SDGs, a PMU unit will be established at Primary and Secondary Directorate to monitor the quality indicators. The cell will also take measure and promote computer aided learning, computer education, use of ICT etc. at district, block and school level. This is to be implemented in 2017-18.

- **Sakshar Bharat Scheme**

The State Literacy Mission Authority is the implementing agency of the Sakshar Bharat Scheme. It aims to raise the literacy level to 80 per cent by reducing the gap between female and male literacy rates. Through this, 20 districts will be covered for Sakshar Bharat Scheme.

Box 11.2: Government extends Direct Benefit Transfer (DBT) in Scholarships

The Welfare Department of the State will distribute scholarships in the government schools via direct benefit transfer (DBT) mechanism. The benefit is applicable to children for class 2nd to 4th. The DBT will bring payment savings wherever required and, further, bring transparency in the system. There are about 18 lakhs students (class 2 to class 4) in all government schools of Jharkhand who will receive the benefits in their respective bank accounts. However, prior to this, Gramshila Committee was entitled to distribute scholarships to the students.

Secondary Education Schemes

Continuing Schemes

- **Establishment of Model School**

Initially, it was a Central Government sponsored scheme, and thus, 50 per cent of the total recurring and non-recurring expenditure was borne by the Centre; but from the financial year 2015-16, it became a state plan scheme, and, presently, 89 model schools are under construction.

- **Strengthening of B.Ed. Colleges (CTE)**

To facilitate B.Ed. colleges in every division of the State, 3 Colleges of Teacher Education (CTE) and 1 Institute for Advance Studies in Education (IASE) has been sanctioned by the Government of India. These colleges will be established by upgrading the existing 4 B.Ed. Colleges. Also, new B.Ed. Colleges are to be established in Palamu and Kolhan Division.

- **Strengthening of Public Libraries**

As per the recommendations of the Knowledge Commission, along with the 18 divisional/state/sub-division libraries in 18 districts, additional 3 new district libraries are to be established in Deoghar, Jamshedpur and Ramgarh. Fund is also required to improve and strengthen the existing libraries with better infrastructure.

- **Facilitate Technical Education through Coaching**

The School Education and Literacy

Department is willing to run Coaching Centers at State/District/Sub division/Block Headquarter for the preparation of Joint Engineering Entrance Examination or Joint Medical Entrance Examination. The aim is to provide opportunities to students who are good in studies and want to become an Engineer or Doctor but due to financial constraint are not able to get enrolled in the respective Coaching Centers. The services of the government teachers and experts will be taken into consideration for this purpose.

Box 11.3 : Role of Government in Providing Better Education to Poor Children in both Private and Public School

The education department appointed 18068 teachers in the schools in 1000 days. Approximately, 16000 teachers were appointed in the primary and middle schools, and 2000 teachers were appointed in the high schools. Moreover, for the secondary and senior secondary schools, appointments of 21468 teachers are in process which is expected to be completed before the next academic session. Further, posts have been created for 6500 teachers in the residential schools. The Reservation Roaster has been cleared and prejudicial will be sent to Jharkhand Staff Service Commission for the appointment of permanent assistant professors in the colleges.

The government has taken an initiative for providing basic infrastructures like providing bench-desk to 31181 schools and electricity connection to 26788 schools which will accelerate the admission rate of children in the school. In addition, vocational course training and Chief Minister Excursion Plan have been started by the government for the better education of children. Under the skill development program, the government aims to provide employment to 25,000 people by 12 Jan, 2018.

Under the Government supervision, all the private schools in the State must have standard security measures within the school premises for the safety of the children. Moreover, a sustained Campaign is being undertaken to encourage the admission of BPL children in private schools.

- **Free Education for Girls up to Intermediate Level**

To promote and encourage the education of girls, the State Government is providing free education to girls in schools up to the

intermediate level. The examination fees are not be charged by JAC (Jharkhand Academic Council) from girl students and the loss incurred by JAC is being reimbursed by the State Government.

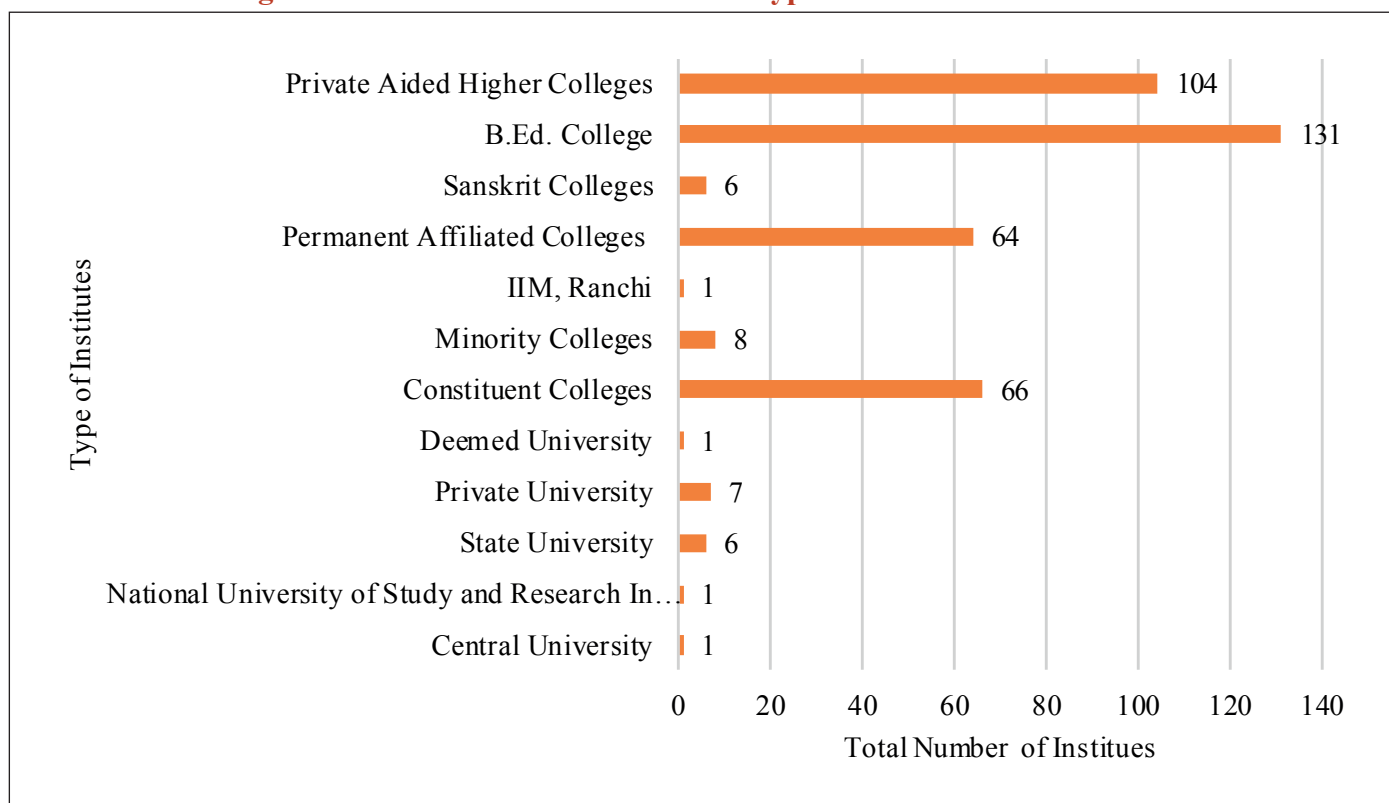
Higher and Technical Education

- **Status of Higher Education Institutes in Jharkhand**

Altogether, there are 396 Higher Education Institutes in the state. There are 131 B.Ed. Colleges and 104 Private Aided Higher Education Colleges. Currently,

the college population density in the state is 8 colleges per lakh of population in the age group 18-23 years as against 25 colleges at the national level. Therefore, State Government is opening new colleges in Government sector and promoting private parties to open private Universities/Colleges in the state.

Figure 11.3: Total number of Different type of Institutes in Jharkhand



Source: Planning-Cum-Finance Department, Planning Division, Government of Jharkhand

- **Gender and Social Category-wise Enrolment of students in Higher Education**

In Higher Education, as compared to male students, the enrolment of female students belonging to ST, SC, OBC and Muslim group has shown a greater increase. The enrolment of female ST students has shown the highest increase (34.68 per cent) between 2015-16 and 2016-17. It is followed by female students from OBC category, SC, and finally Muslim category. A similar trend can be seen among male students too.

Table 11.13: Social Category-wise Enrolment

| Social Category | Gender | 2015-16 | 2016-17 | Percentage Growth |
|-----------------|--------|---------|---------|-------------------|
| SC | Male | 29061 | 33461 | 15.14 |
| | Female | 22742 | 26874 | 18.17 |
| ST | Male | 43597 | 54363 | 24.69 |
| | Female | 50403 | 67883 | 34.68 |
| OBC | Male | 106275 | 128923 | 21.31 |
| | Female | 91706 | 117711 | 28.36 |
| Muslim | Male | 17257 | 18826 | 9.09 |
| | Female | 15652 | 18369 | 17.36 |

Source: All India Survey on Higher Education (AISHE) Report 2015-16 and 2016-17

• **Pupil-Teacher Ratio⁶**

According to AISHE report 2016-17, the pupil-teacher ratio is 56 for the State. The pupil teacher ratio is given in the table below :

Table 11.14: Pupil-Teacher Ratio

| Type of University | Pupil-Teacher Ratio |
|----------------------------------|---------------------|
| Central University | 10.28 |
| State Public University | 28 |
| State Private university | 30.39 |
| Deemed University Government | 27.61 |
| Deemed University- Private | 14.5 |
| Institute of National Importance | 8.78 |
| Total in the state | 56 |

Source: All India Survey on Higher Education (AISHE) Report 2016-17

Plans of Rashtriya Uchchatar Shiksha Abhiyan (RUSA)

- Jharkhand Raksha Shakti University:** After Rajasthan and Gujarat, Jharkhand is the third state to begin a university related to security and well-being for the people. It will be providing both degree and diploma courses. The first batch began during 2016-17.
- Quality Education:** To improve the quality of education in the state, several institutes and trusts have been invited to set up their institutes and called upon to ensure a higher quality in education in the state. In the past two years, Amity University, Pragyan International University and AISCET University have been established in the state.
- New Model Colleges:** Establishment of new model colleges in 12 Educationally Backward Districts (EBDs) viz. Garhwa, Koderma,

Chatra, Pakur, Palamu, Saraikela-Kharsawan, Gumla, Giridih, Deoghar, Godda, Dumka and Sahebganj is proposed. Academic session was to begin in Godda and Giridih from 2017-18.

- NAAC Accreditation** has been made mandatory for every HEIs for permanent affiliation and government grants as guided by UGC.
- Women Colleges** has been started in 11 such districts where there is no Constituent and Affiliated Colleges.
- New Polytechnic Colleges:** 10 new Polytechnic Colleges are to become functional in the current academic session under public-private partnership (PPP) mode.
- Skill based training:** For setting up of three Centres of Excellence (CoEs) and 15 Technical Skill Development Institutes, MoUs have been signed with Siemens Software (India) Pvt. Ltd. to provide Skill based trainings in selected technical institutes.
- Modern Planetarium:** Initiatives have been taken to construct modern planetariums in Jharkhand. Presently, the construction of two planetariums at Ranchi and Dumka is under process.
- MoUs have been signed with Cisco, Oracle and Tata Steel for imparting **IT based Skill Development** courses in Technical institutions.
- State Level **Quality Assurance Cell (SLQAC)** has been established to ensure quality in education.
- The state, for the first time, has successfully conducted a State Level **SLQAC Conference** on 20 December 2016 with the participation

⁶ Student-teacher ratio: the number of students who attend a school or university divided by the number of teachers in the institution.

of three State Universities and Technical Universities.

- 12. Digital Class:** Under CSR Activities, Hewlett Packard has initiated the process of establishing digital class in four State Universities of Jharkhand (except Vinoba Bhave University).

Status of Ongoing Schemes

- **Grant-in-Aid to Universities (Infrastructure development of universities and colleges, Campus Development, establishment of science and technology centre, incubation centre, renovation, repairing etc.)**

With an objective of creating high level academic atmosphere in the universities and colleges, the State Government releases the grant-in-aid to strengthen and develop the infrastructure of existing universities and colleges. The fund is utilized for constructing multipurpose examination halls in a phased manner, along with the construction of hostels (General and women).

The grant in aid has been proposed for the following 5 State Universities and colleges during the financial 2016-17 -

- Ranchi University, Ranchi
 - Vinoba Bhave University, Hazaribagh
 - Sido-Kanhu Murmu University, Dumka
 - Nilamber Pitamber University, Palamau
 - Kolhan University, Chaibasa
- **Grant in-Aid to Vitta Rahit Colleges**

As per the rules framed by the government in accordance with the provision of the Jharkhand State Unaided Educational

Institutions (Grants) Act, 2004 and the rules made there under, all the affiliated permanent degree colleges and institutions receive grants on the basis of number of students, working days, faculty positions in rural/urban/tribal groups etc.

- **Grant in aid to universities for modernization of library, up-gradation of laboratory computer centres, setting up incubation and entrepreneurship development centres, and purchase of Equipment**

To impart quality education to students in universities and colleges there is a need for good library support, well equipped laboratory with modern facilities, e-library, language labs, digitization and network facilities etc.

To encourage Research and Development and Entrepreneurship activities in the state, there is a need to setup an incubation and entrepreneurship development centre in all the Universities in a planned manner on PPP mode. It has been proposed that in the first phase, incubation and entrepreneurship development centre will be setup in Ranchi and Vinoba Bhave Universities.

- **Grant-in-Aid to University for free education to Girls, Distance Learning, establishment of Coaching Centres & conducting classes in two shifts**

In order to encourage higher education among girls of the state, a scheme for free education to girl students up to Post-Graduate level was launched in the financial year 2005-06. Under this scheme, a proposal for the reimbursement of the tuition and examination fee of the girls

is sent from the concerned universities to the State Government. Also, to improve the enrolment ratio of the state and increase the coverage in the rural areas, distance learning has been proposed to be introduced in the State Universities.

To overcome the financial obstacles faced by the poor students, the State Government has come up with an initiative to open coaching centres for students who are willing to prepare for various competitive examinations like central & state services, banking services, staff selection commission examinations and others.

To bridge the gap between the number of students who have passed the 12th examination and the number of seats provided in degree level institutions, the State Government has allowed the Universities to conduct classes in two shifts in the existing institutions.

As there has been a shortfall of teachers and staff to run the regular courses in the respective colleges and universities, it has been proposed to hire part time teachers who can take regular classes and will be paid on per lecture basis.

- **ICT Infrastructure & e-Learning**

In order to improve the quality of education, the Universities have been instructed to provide innovative learning which includes furnished ICT Infrastructure and e-Learning facilities. It will facilitate establishment of Digital Library, purchase of e-books, e-journals, purchase of Computers, I-Pads, Laptops and Kindles, along with the availability of Wi-Fi in the University

campus. In addition, videos of lectures and their digital notes will be uploaded on the central server. Further, the preparation of software for e-library, student's lifecycle and campus management, such as online admission, examination, result publication certificate, payment etc. is under process. The software will be used for both Higher Education and Technical Education and the cost will be shared in the ratio of 3:1.

- **Training, Conferences, Workshops and Visit to Different Places Inside Country and Abroad**

Academic reforms in Higher Education is very important. In order to improve quality education, interaction of students, teachers and departmental officials and their exposure to changing scenario of Higher Education in India and abroad is the need of the hour. Moreover, the department underlines the need to organize conference/seminar, workshops etc. at state and regional level.

- **Grant-in-Aid for Soft Skill, Consultancy Fee, Placement Cell, etc.**

It has been proposed to introduce a PMU/consultant to improve higher and technical education in the state. A team is set to be hired for imparting soft skills and motivational lectures in the concerned colleges and institutes. It has been suggested to channelize the placement process in the university, for which logistical software or manpower support will be provided to the Universities.

- **Infrastructure Development of New Colleges and Universities**

The State Government has come up with a consensus decision of introducing 100 new

academic institutions in the remote and uncovered areas of the State. The decision includes the following points:

- To open **degree colleges** in all the Assembly Constituencies where there is no constituent college. These colleges are to be opened in phase wise manner by the year 2022.
- The construction of 11 **Model Mahila Colleges** are in process. They are being established with a motive to increase the enrolment of girls in the level of higher education in the state.
- It has been proposed to issue some grant for the improvement and development of infrastructure of Ranchi University and Raksha Shakti State University in Ranchi, and Nilamber-Pitamber University in Palamu.

- **Setting up of New University**

To increase the scope of learning and provide better higher educational facilities to the students, an outlay has been proposed for opening Binod Bihari Mahto University in the Financial Year 2017-18.

New Schemes

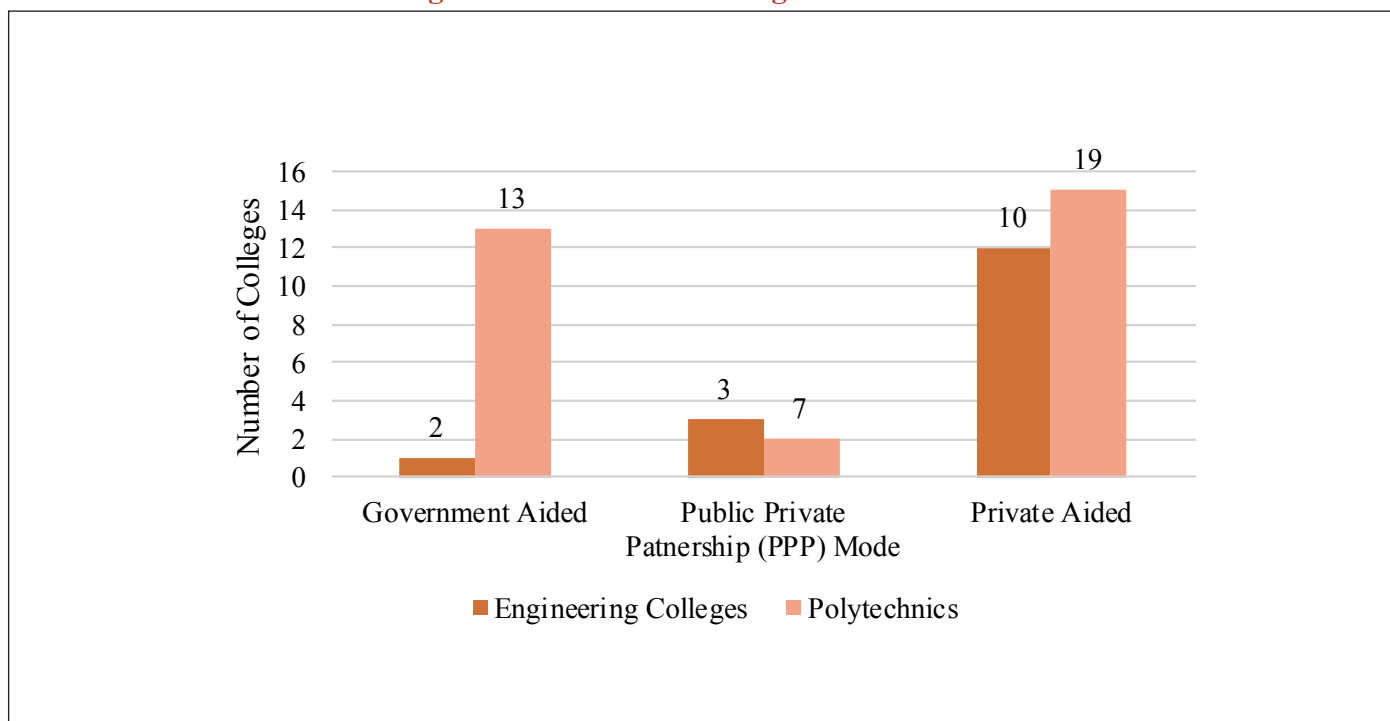
- **Transport, Sanitation and Security Schemes**

To promote Swachh Bharat Mission and provide transport, security, cleaning and other services in Universities and Colleges, a sum of rupees 800 Lakh (Eight Hundred Lakh) was proposed in the financial year 2017-18.

- **Mukhyamantri Fellowship Schemes**

To promote the young scholars in the field of research, the state has come up with this new scheme.

Figure 11.4: Technical Colleges in Jharkhand



Source:., Planning-Cum-Finance Department, Planning Division, Government of Jharkhand

Technical Education

For bringing all the Polytechnic and Engineering Colleges under one roof, the State Government passed a new Act, namely Jharkhand University of Technology Act. Altogether there are 15 Engineering Colleges and 39 Polytechnics in the state. The Government Engineering College is located in Sindri namely Birsa Institute of Technology (BIT) and the PPP mode engineering Colleges are located in Ramgarh, Chaibasa and Dumka. Similarly, 7 PPP mode Polytechnics are located in Silli, Chandil, Behragoda, Garhwa, Gola, Madhupur and Pakur. Out of the 13 Government Polytechnics, 3 are women Polytechnics.

The Government of Jharkhand has approved setting up of 13 new Polytechnics in the uncovered districts of the State. Among the selected districts, the classes had already begun in the areas of Pakur, Silli, Behragoda, Garhwa, Gola, Madhupur and Chandil, and in the remaining places the classes will commence from 2018-19 and 2019-20 sessions.

Jharkhand Council on Science & Technology (JCST)

Jharkhand Council on Science & Technology carries out activities for the popularization of Science through various scientific activities in the state. The Regional Science Centre has been made operational at Ranchi. Different programmes of the Council are running in different District Science Centres for Scientific awareness, Scholarships and Awards, Seminars, Research, Innovation etc. A Planetarium at Ranchi, Dumka and Deoghar as well as mini Planetariums in

each of six District Science Centres cum Technical Libraries are to be established. An agreement has already been signed between JCST and Creative Museum Designers, Kolkata in this regard.

State Board of Technical Education

The State Board of Technical Education situated at Namkum, Ranchi shall be modernized. Through this Board, online services will be introduced for registration, issue of admit card, result declaration, validation of certificate and Payment gateway etc. They further plan to preserve critical data for long, and the data required for verification will be available on website for about 20 years. There will be a provision for online tests also.

Status of Ongoing Schemes

- **Strengthening & Modernization of Polytechnics**

Keeping in view the current needs and aspirations of the students, the Department has planned to strengthen and modernize all the 13 existing Government Polytechnic Colleges. The various schemes taken up are: up-gradation of laboratories, computer centres, library and workshop, and the introduction of revised curriculum. The expansion and rejuvenation of existing polytechnics have been proposed so as to meet the needs of the increased number of candidates. To provide maximum educational benefits to students, it has been proposed to start second shift for diploma classes in all the existing government Polytechnic colleges.

To increase the strength of polytechnics in the state, 4 new Polytechnic Colleges have been proposed at Jainagar (Koderma), Patratu (Ramgarh) and Chaibasa, along with 1 in the Knowledge City Ranchi.

- **Strengthening and Modernization of Engineering Colleges**

All India Council for Technical Education (AICTE) has made accreditation of courses from National Board of Accreditation (NBA) and autonomy a prime importance for institutions like BIT Sindri. The State Government is determined to develop BIT Sindri as a premier autonomous Technical Institution. Thus, several measures have been taken up for the creation of additional infrastructure, induction of new job oriented courses, WiFi-campus, strengthening of libraries with e-library, computer centres, ICT based teaching-learning laboratories, workshops etc. The current intake capacity of the institute in UG level is 680, which is said to be increased. Further, to encourage research, development and entrepreneurship development in the institute, it has been proposed to have incubation and entrepreneurship centre on a PPP mode.

Also, 3 new Engineering Colleges - one at Koderma, one at Palamu and another as Women's Engineering at Ramgarh (Gola), have been sanctioned and their construction is in progress. Three more Engineering

Colleges at Ranchi, Giridih and Sahebganj are also proposed to get the sanction in the near future.

- **Construction & Renovation of Technical Education Hub and other Infrastructure Development**

To generate private investment in this sector, "Technical Education Hub" is necessary and it is in the process. It will consist of different types of technical Institutes, World Class Research and Development Centre and all common facilities like Central High-Tech Library, Healthcare Centres, Visitors House, Multipurpose Hall etc.

- **ICT Infrastructure**

In order to provide quality education to the students and to meet the scarcity of quality faculty, latest technology of Teaching-Learning process has been introduced in existing Government Technical Institutions. Under ICT infrastructure for Virtual Class, e-learning, Wi-Fi campus, software for online admission, e-library, examination, result publication, certificate, payment, campus management, etc. is under process. To make students more updated, online interactive teaching facility will also be introduced.

Further, it has been proposed to get MoU signed with reputed IT sector companies like Wipro & NICS I etc. for setting up ICT infrastructure in different government

Technical Institutions.

- **Jharkhand University of Technology**

The Jharkhand University of Technology is under construction. The construction of Jharkhand University of Technology has started in 2016-17 and will be completed by 2018-19. It is being established to improve the Technical Institutions of the State by bringing them under one umbrella. For expenditure on establishment and furnishing etc. grant will be made available to the University.

- **Grant-in-Aid to Non-Government Institutions**

In order to impart quality technical education, a separate committee has been constituted to propose policy regarding grant-in-aid to non-government institutions like private sector engineering colleges and polytechnics. An MoU has been signed with BIT Mesra and Deoghar for the payment of 50% of dearness allowances and other assistance.

- **Training & Development, Institution Networking & Collaboration, Workshop, Seminar, Placement and Consultancy**

To cope up with the new technologies and their applications it is necessary that all types of teaching faculty, officers and supporting staff of the Institutions, Department and other offices under the administrative control of the department to be trained and reoriented

to these developments and changes. The Principals are to be authorized to send their teachers to attend training programmes inside or outside the state so that they may be acquainted with the new methods of teaching, latest advancement in a particular subject and in material testing. Further, it has been suggested to provide foreign tours for faculty and students to participate in international conferences and other events to present their research papers and innovative skills.

Regular and close interactions between the Institute and Industry will improve the quality of technical education and will make the students ready to get absorbed in the job market. Thus, collaboration with leading and big industry giants will help in achieving the required exposure to the new technologies. For this, seminars, workshops are to be conducted where the leading experts from IITs and NITs will be invited to deliver lecture.

The Government is trying to provide jobs to Degree/Diploma holders of the state through placement drive, for this a PMU has to be established.

JINFRA is working as transaction manager for selection of private partner to run Polytechnic Institution under PPP mode. There is a PMU for improvement of educational quality and other works. Consultancy fee has to be provided to both of them.

Conclusion

The initiatives that has been taken by the respective departments of education in the state are directed towards providing inclusive and quality education in Jharkhand. The departments are making efforts by constructing, renovating, strengthening, modernizing and upgrading the Technical Education Hub, Polytechnics, new and existing Colleges and Universities, Model schools, public libraries, etc., for the advancement of education in the State.

Despite the governmental efforts, the social and spatial inequalities in literacy rates and levels of educational development continues across the various social groups and districts. The gross enrolment ratio has shown an overall improvement

at secondary educational level, especially the girls, but the dropout rate among the students of secondary level has also increased. To reduce the dropout rates of the students belonging to the economically backward sections of the society the Department has introduced scholarships and other incentives to promote and encourage education. The initiatives and plans of the State and Central Government are aimed to ensure better access to education for all, especially the vulnerable sections of the society. However, the overall success of the educational visions of the current government, and the initiatives and plans therein, will depend on the way they are actually implemented in the present and in the years to come.

XII

HEALTH



Introduction

Jharkhand has made substantial gains in improving the health & well-being of the population, however at the disaggregate level, the achievements vary strikingly. The infant mortality rate vary from 25 in Purbi Singhbhum to 54 in Godda. U5MR was highest in Pashchimi Singhbhum and lowest in Koderma.

Health has acquired enough significance as an indicator of human development. Measuring the levels of health outcomes attained thus indicate the economic progress of the nation. India has made substantial progress in health-related parameters to its claims; however, wide disparities across states, regions, and gender continue to persist. Concerted efforts have been made to address the inter-state and inter-district inequalities in health status. On account of this variation and the uneven progress across states, the Government of India (GoI) had identified 184 high priority districts (HPD) of India. Of these 184 districts, most of them belong to the eight Empowered Action Group (EAG)¹ states or High Focus States.

Jharkhand is one of the high focus states, owing to the poor performance in terms of health and other human development indicators. Since its inception, Jharkhand has reported unacceptably high under-nutrition, mortality and morbidity rates. Moreover, 26 per cent of the tribal population resides in the state of Jharkhand. It is in general agreement that tribal communities have poor access to basic amenities and live in a deplorable situation. Often deprived of adequate healthcare, education, sanitation, and other basic facilities, social and development outcomes of tribal communities are appalling. On account of this, the present chapter attempts to provide an overview of the health scenario of Jharkhand and various initiatives by the Central and state government.

Status of health indicators of India and Jharkhand

The National Health Mission (NHM) has been making concerted efforts to improve the health status of the nation. Specific goals have been set to improve the mortality indicators of India. The set goals were also the objectives of the Twelfth Five-Year Plan to be achieved by 2017. The NHM intended to reduce the two mortality indicators, i.e., Infant Mortality rate (IMR) to 25 per 1000 live births and Maternal Mortality Ratio (MMR) to 1 per 1000 live births by 2017. However, in the absence of recent data, the progress in terms of achieving these goals cannot be assessed.

The status of health indicators of India and Jharkhand are provided in Table 12.1. The population of Jharkhand according to the Census 2011 was 32.96 million, consisting of 16.93 million males and 16.03 million females. Around 26 per cent of the total population constitutes of tribal community, with 32 per cent residing in the rural areas and 10 per cent in urban areas. The life expectancy in Jharkhand was seen to be higher than the national average for the period of 2011-2015. Similarly, the Crude Birth Rate (CBR) of Jharkhand was higher than India. Alternatively, the Crude Death Rate (CDR) of the state is lower than India, implying better health status in Jharkhand vis-à-vis India.

The child mortality rates, i.e., neonatal, infant and under-five mortality in Jharkhand were below the national average. The IMR of Jharkhand was although lower than the national average of 37; it continues to be worse compared to many other states. However, Jharkhand's position is better compared to other high-focus states of India. The Total Fertility Rate (TFR) of the state is higher than the national average of 2.3, indicating that Jharkhand is far

¹ Following the Census 2001, the Ministry of Health and Family Welfare constituted an Empowered Action Group (EAG) states comprising of Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, Orissa, Rajasthan and Assam owing to their human development indicators. These nine states, which account for almost 48 percent of the total population in the country, are designated as the High Focus States by the GoI.

behind the replacement level of 2.1. According to the population projections made by Registrar General of

India, Jharkhand will reach the replacement level of fertility by 2018.

Table 12.1: Status of health indicators of Jharkhand and India

| Indicators | Jharkhand | India |
|--|---------------|--------------|
| Population | 32.96 Million | 1.21 Billion |
| Female Literacy Rate | 55.42 | 53.7 |
| Sex-ratio (Female per 1000 male) | 948 | 919 |
| Life Expectancy at Birth | 67.2* | 68.3* |
| Crude Birth Rate | 23.5** | 20.8** |
| Crude Death Rate | 5.8** | 6.5** |
| Neonatal Mortality Rate | 23** | 25** |
| Infant Mortality Rate | 44*** | 41*** |
| Under-five Mortality Rate | 54*** | 50*** |
| Maternal Mortality Ratio | 245# | 167## |
| Total Fertility Rate | 2.7** | 2.3** |
| Mean age at effective marriage (Females) | 20.7 | 21.2 |

Source: Census, 2011; *Sample Registration System Life Table 2011-2015; **Sample Registration System Statistical Report, 2015; *** National Family Health Survey, 2015-16; #Annual Health Survey, 2012-13; ## Special Bulletin on Maternal Mortality in India, 2010-12.

Table 12.2: Performance of health indicators in High-Focus States (2012-13)

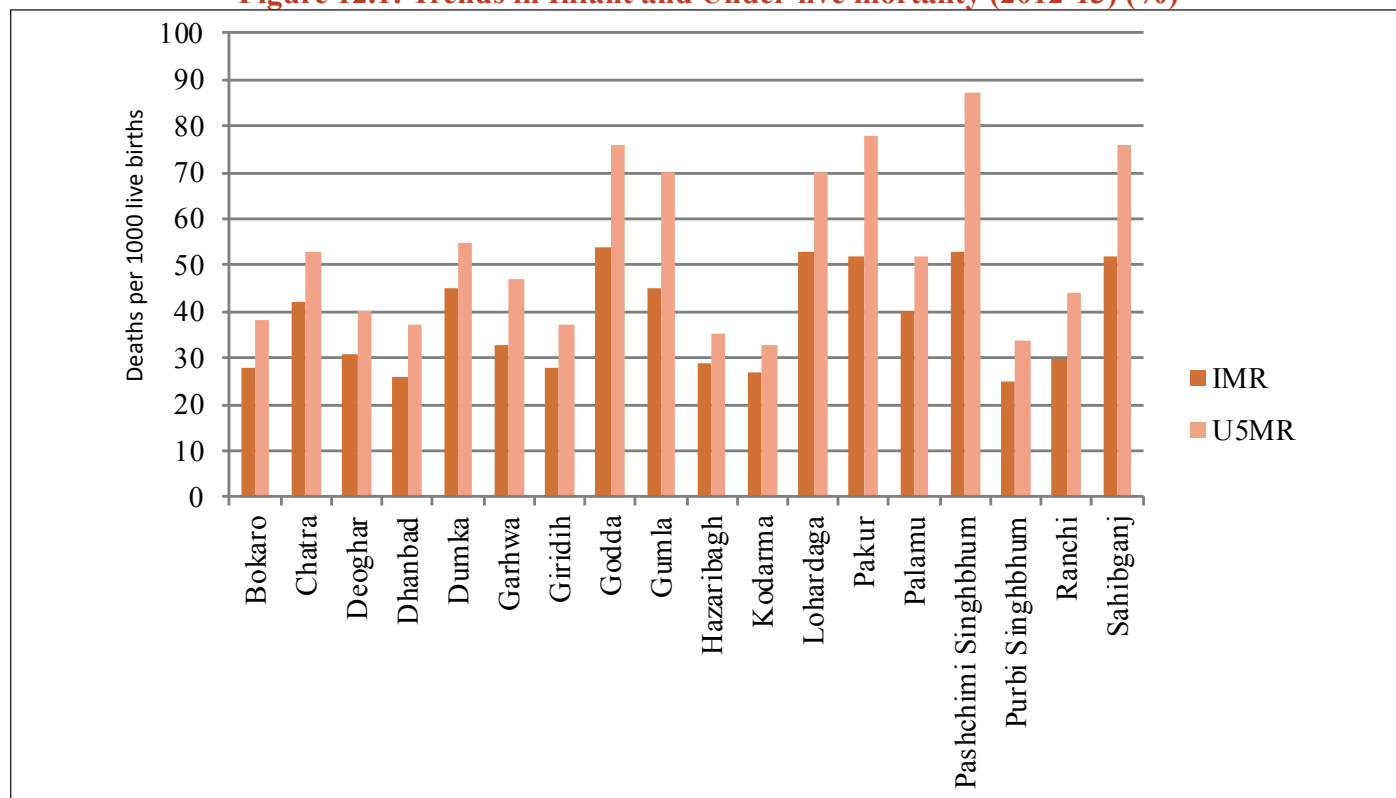
| States | IMR | U5MR | MMR |
|----------------|-----|------|-----|
| Assam | 47 | 62 | 301 |
| Bihar | 42 | 48 | 274 |
| Chhattisgarh | 41 | 48 | 244 |
| Jharkhand | 32 | 39 | 245 |
| Madhya Pradesh | 50 | 62 | 227 |
| Odisha | 46 | 56 | 230 |
| Rajasthan | 43 | 50 | 208 |
| Uttar Pradesh | 46 | 51 | 258 |
| Uttarakhand | 34 | 38 | 165 |

Source: Annual Health Survey, 2012-13

Table 12.2 provides the status of health indicators across the nine high-focus states of India. The two indicators representing the status of children in Jharkhand, i.e., infant and under-five mortality is

lower than the other high-focus states. However, the maternal mortality ratio in Jharkhand is higher compared to many high-focus states.

Figure 12.1: Trends in Infant and Under-five mortality (2012-13) (%)



Source: Annual Health Survey, 2012-13

Evident from the Table 12.1, Jharkhand has made substantial gains in improving the health and well-being of the population. However, at the disaggregate level, the achievements vary strikingly. The urban-rural disparity in the state largely contributes to the variations in the levels of health outcomes achieved. The urban areas of Jharkhand have advanced healthcare services and better accessibility compared to their rural counterparts, hence has better utilization of healthcare services. Additionally, the variations across the districts are far more disheartening. Due to lack of recent data on IMR, figures for 2012-13 are provided in the Figure 12.1. The IMR vary from 25 in Purbi Singhbhum to 54 in Godda. Low IMR in Purbi Singhbhum can be attributed to the high-quality medical services provided by the private hospitals and the higher levels of economic development. The U5MR was highest in Pashchimi Singhbhum and lowest in Koderma.

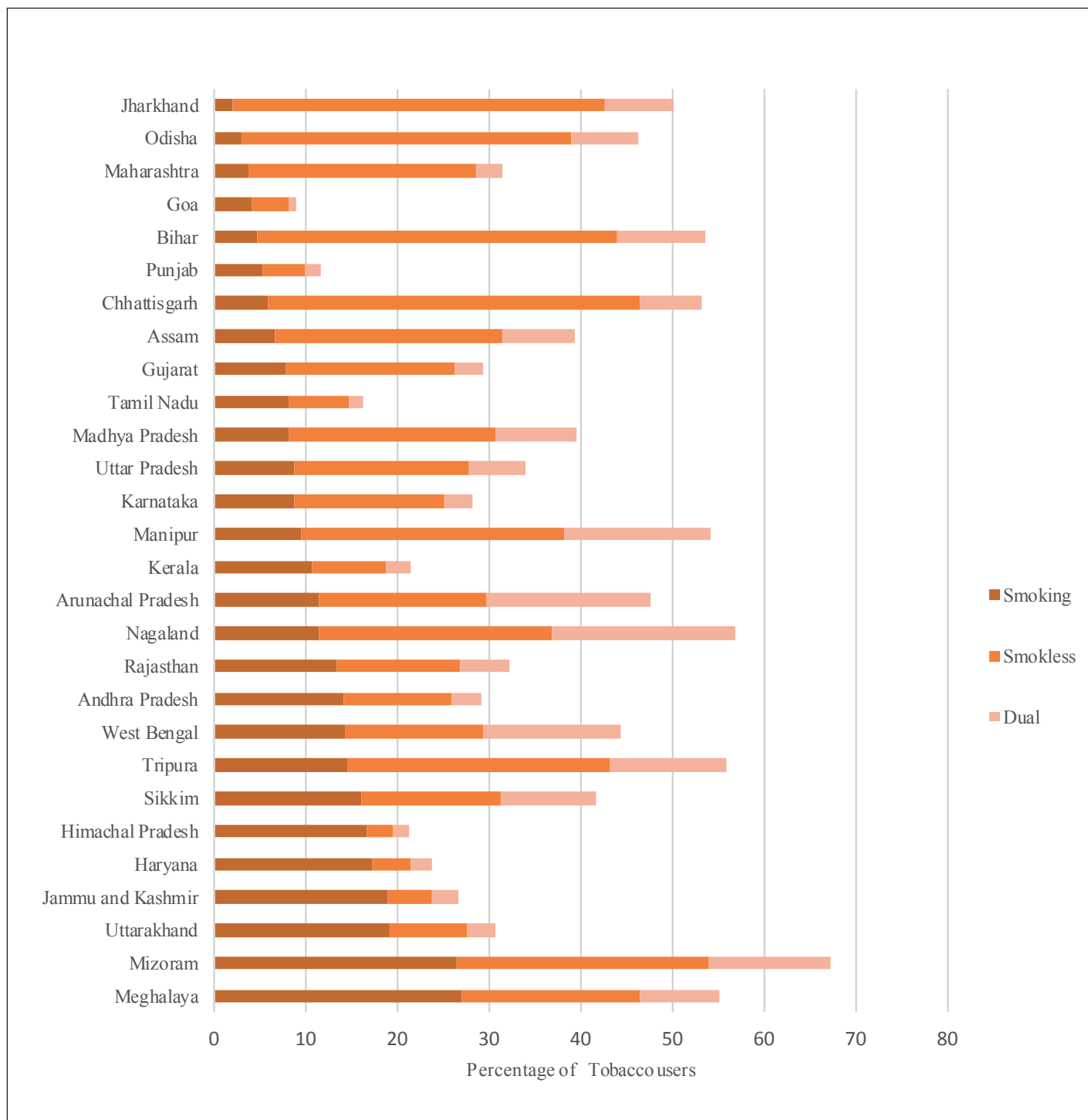
Prevalence of communicable and non-communicable diseases in Jharkhand

Morbidity and mortality due to communicable and non-communicable diseases continue to be a major public health issue in India. There has been a significant decline in the number of deaths due to communicable/infectious diseases, indicating India's progress in improving the status of water and sanitation and basic health services. However, deaths due to Non-Communicable Diseases (NCDs) are on the rise, thus, creating a double burden of disease and hindering the progress of the nation. India is fervently fighting against the dual disease burden; however, it is NCDs which require immediate attention. The loss due to NCDs not only has a detrimental impact on individual's health but also on the economic growth of a country. Poor health situation leads to reduced productivity thereby reducing wages/earnings, and have adverse effects on the economy.

As per the World Health Organization (WHO) publication on Global Status Report on NCDs (2014), a total number of deaths in India due to NCDs were 5.87 million, which accounts to 60 per cent of all deaths in India. The leading causes of deaths reported were cardiovascular diseases

(which include coronary heart disease, stroke, and hypertension- 45 per cent), chronic respiratory diseases (22 per cent), cancer (12 per cent), and diabetes (3 per cent) making the largest contribution towards mortality and morbidity due to NCDs.

Figure 12.2 : Percentage of Tobacco users by products (2009-10) (%)



Source: Global Adult Tobacco Survey (GATS), 2009-10

The four main factors significantly contributing to the proportion of diseases due to NCDs are - tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol. According to 'Economics of Non-Communicable Diseases in India' report of 2014, tobacco consumption is cited as one of the major risk factors for cardiovascular diseases and various types of cancer. According to the Global Adult Tobacco Survey (GATS), 2009-10, the prevalence of tobacco use both in smoke and smokeless form was highest in the North-East and the EAG states (Figure 12.2). The proportion of tobacco users in Jharkhand which includes smoking, smokeless and dual users is around 50 per cent, much higher than the national average of 37 per cent. The transition in the disease pattern from infectious to non-communicable diseases has a serious impact on the health and economic growth of the country. The dual disease burden results in loss of productivity, employment and mounting health expenditures. Evidence corroborates that expenditure on NCDs has a catastrophic impact on the households.

National Health Mission in Jharkhand

The NHM encompasses of two Sub-Missions, the National Rural Health Mission (NRHM) and the National Urban Health Mission (NUHM). The main objective of NHM is to achieve universal access to equitable, affordable and quality healthcare services that are accountable and responsive to people's needs. The NRHM launched in April 2005 envisioned to provide accessible, affordable and quality healthcare to the rural population, especially the vulnerable groups, across the country with special focus on 18 states. These are the eight Empowered Action Group (EAG) states, North-Eastern states, Jammu & Kashmir and Himachal Pradesh. The NUHM, on the other hand, was launched to address the health

needs of the urban poor. The main components of NHM include Health System strengthening in rural and urban areas, Reproductive Maternal-Neonatal-Child and Adolescent Health (RMNCH+A) and Communicable and Non-Communicable Diseases.

Reproductive Maternal - Neonatal - Child and Adolescent Health

Efforts to improve the health of women and children in India have always been prioritized. To meet the healthcare needs of women and children, the Department of Family Welfare had initiated the Reproductive and Child Health (RCH) programme. The first phase of the programme was launched during 1997-98, which focused on improving the maternal and child health in the country. The second phase of RCH was launched in April 2005 under the umbrella of National Rural Health Mission (NRHM), now National Health Mission (NHM). Understanding that the health goals are unattainable unless a broad strategy linking reproductive, maternal, and child health services is adopted. In other words, without emphasizing on the concept of 'continuum of care,' crucial health-related indicators are far from achievable. The continuum of care approach included integrated service delivery across life stages which means pre-pregnancy, childbirth, post-natal period, childhood, adolescence, and throughout the reproductive years. Realizing this gap, the Ministry of Health and Family Welfare has developed a new and comprehensive RMNCH+A strategy under the NHM. The main components of RMNCH+A are reproductive health, maternal health, newborn health, child health, immunization, adolescent health and family planning. The remarkable feature of the modified RCH is the inclusion of adolescent health. In the subsequent sections, the various components are discussed in detail.

Maternal Health

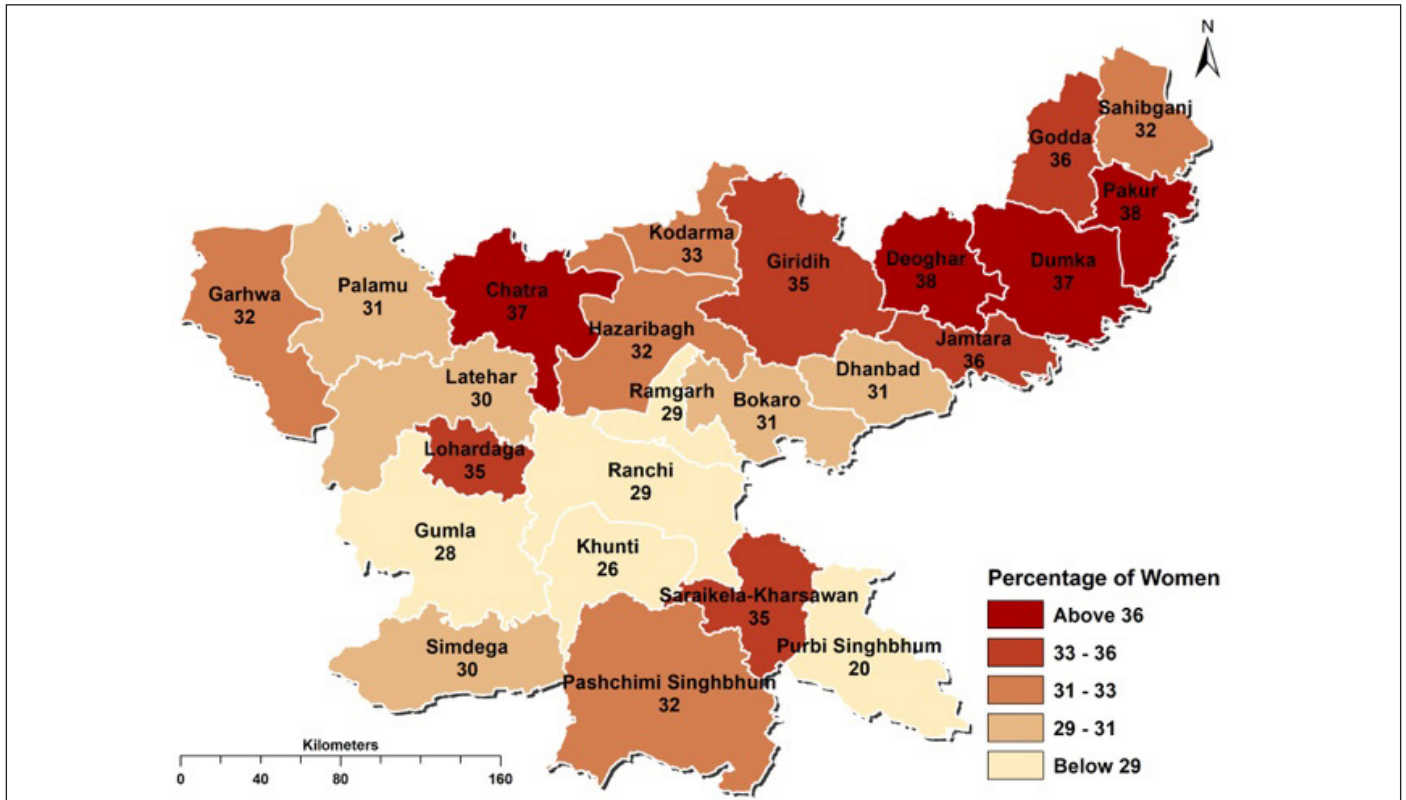
Maternal health mainly refers to the health status of women during pregnancy, childbirth and postpartum period. Improving maternal health is crucial for achieving various public health goals. It also has a direct bearing on the health of the child and the family. One of the most common health issues that women face in India is malnutrition. Women who are malnourished are less productive; slow to recover from other illnesses; increased vulnerability to infectious diseases and most importantly are at high risk during pregnancy. Malnourished women, as indicated by low body mass index (BMI) and anaemia levels, often results into pregnancy complications such as obstructed labour and low birth-weight, thus, having severe implications on her as well as her child's health. BMI is defined as weight in kilograms divided by height in meters squared (kg/m^2). BMI values below $18.5\text{kg}/\text{m}^2$ are used to define thinness or acute undernutrition or underweight. A BMI value below $18.5\text{kg}/\text{m}^2$ also indicates chronic energy deficiency. BMI values above $25\text{kg}/\text{m}^2$ indicate overweight and obesity, among women, excluding those who were pregnant at the time of the survey and those who delivered during the two months preceding the survey. Likewise, anaemia levels were categorized separately for pregnant and non-pregnant women. The low levels of haemoglobin indicate poor health due to the poor nutritional intake. It further has a detrimental impact on adults, particularly women pre-and post-pregnancy.

The health status of women in Jharkhand is disheartening, with high anaemia levels and low BMI. Almost thirty-two per cent of women and 24 per cent of men are undernourished in Jharkhand, with a BMI less than $18.5\text{kg}/\text{m}^2$. Undernutrition among adults, particularly women, was more severe across the districts. The proportion of women having a BMI value below $18.5\text{kg}/\text{m}^2$ is high in the districts of Deoghar, Pakur, Chatra, Dumka, Jamtara, and Godda, where more than 36 per cent of women were recorded to have low BMI. While the proportion of underweight women in the districts of Lohardaga, Saraikela, Giridih, Koderma, Hazaribagh, Pashchimi Singhbhum, Garhwa, and Sahibganj is above the state average, i.e., 32 per cent. The district with the lowest prevalence of underweight women was observed in Purbi Singhbhum. Alternatively, the percentage of underweight men was highest in Chatra (33 per cent) and Pakur (33 per cent), while the district with the lowest proportion of underweight men was Purbi Singhbhum.

Box 12.1: National Nutrition Week-2017

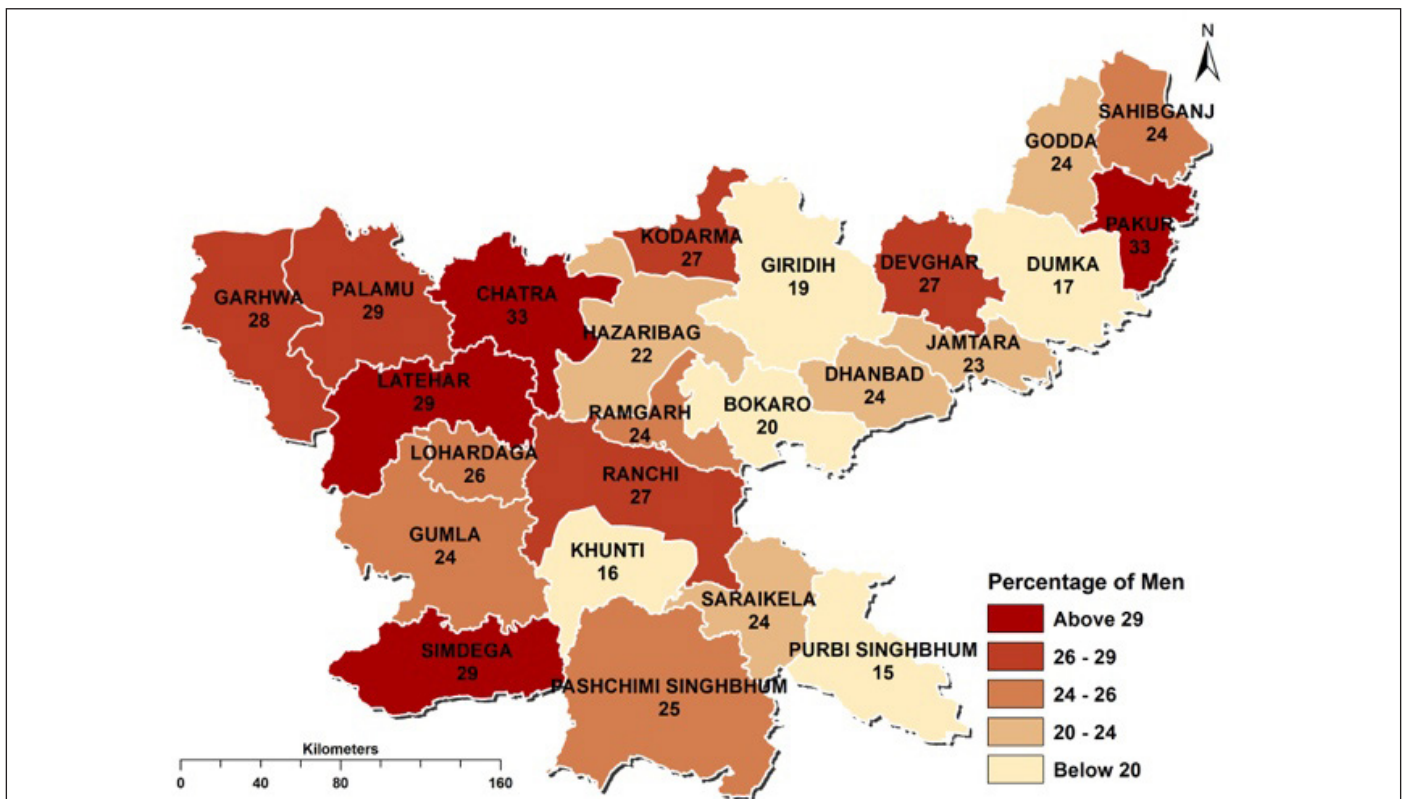
September 1st to 7th is marked as National Nutrition Week. The theme of this year is optimal infant and young child feeding. The week provides an opportunity to increase knowledge and awareness about mother and child health. The government organises nutrition week every year to create awareness among the common people pertaining to benefits of better nutrition intake, side effects of malnutrition, myths and truths of nutrition.

Map 12.1: Proportion of women whose BMI is below normal (BMI < 18.5 kg/m²) (2015-16) (%)



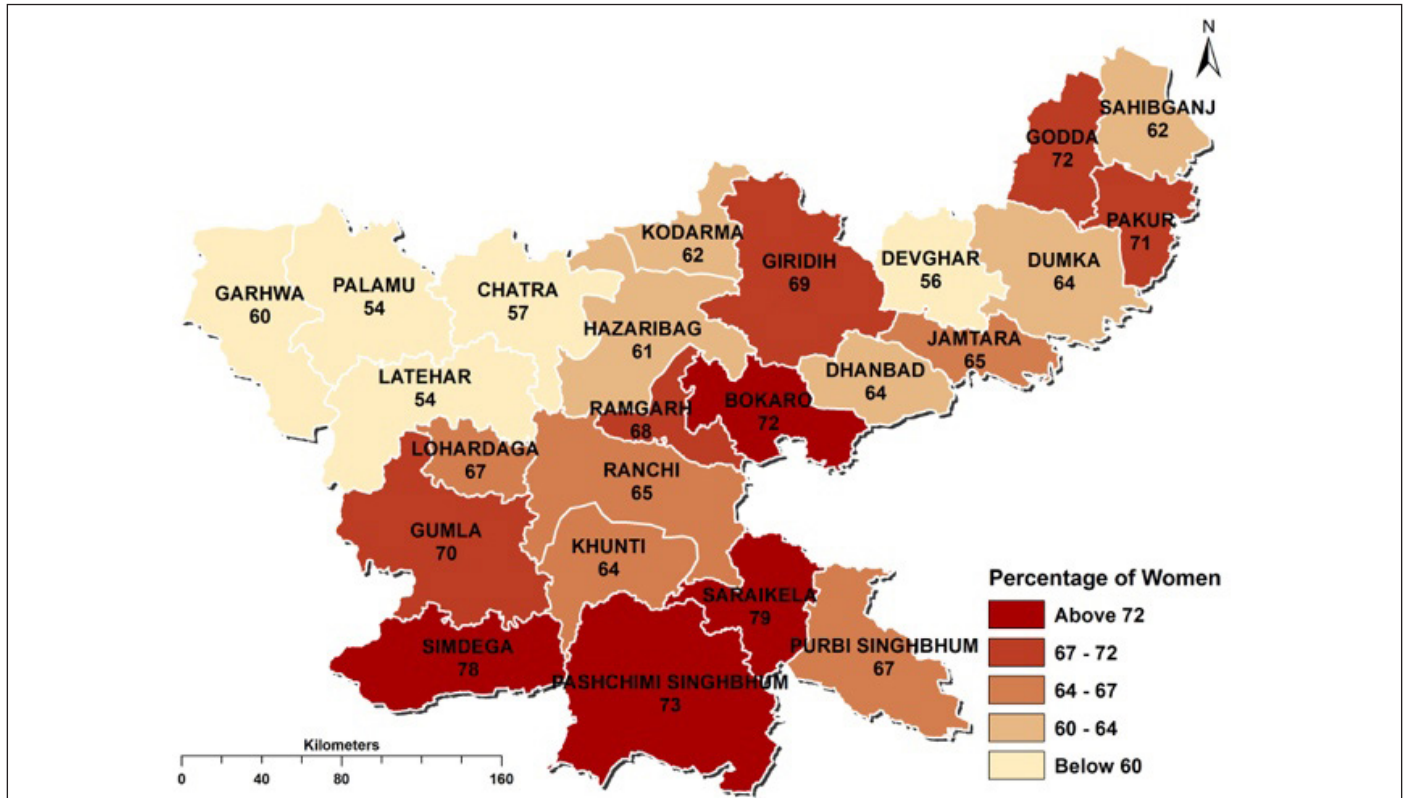
Source: Compiled using data from National Family Health Survey, 2015-16

Map 12.2: Proportion of men whose BMI is below normal (BMI < 18.5 kg/m²) (2015-16) (%)



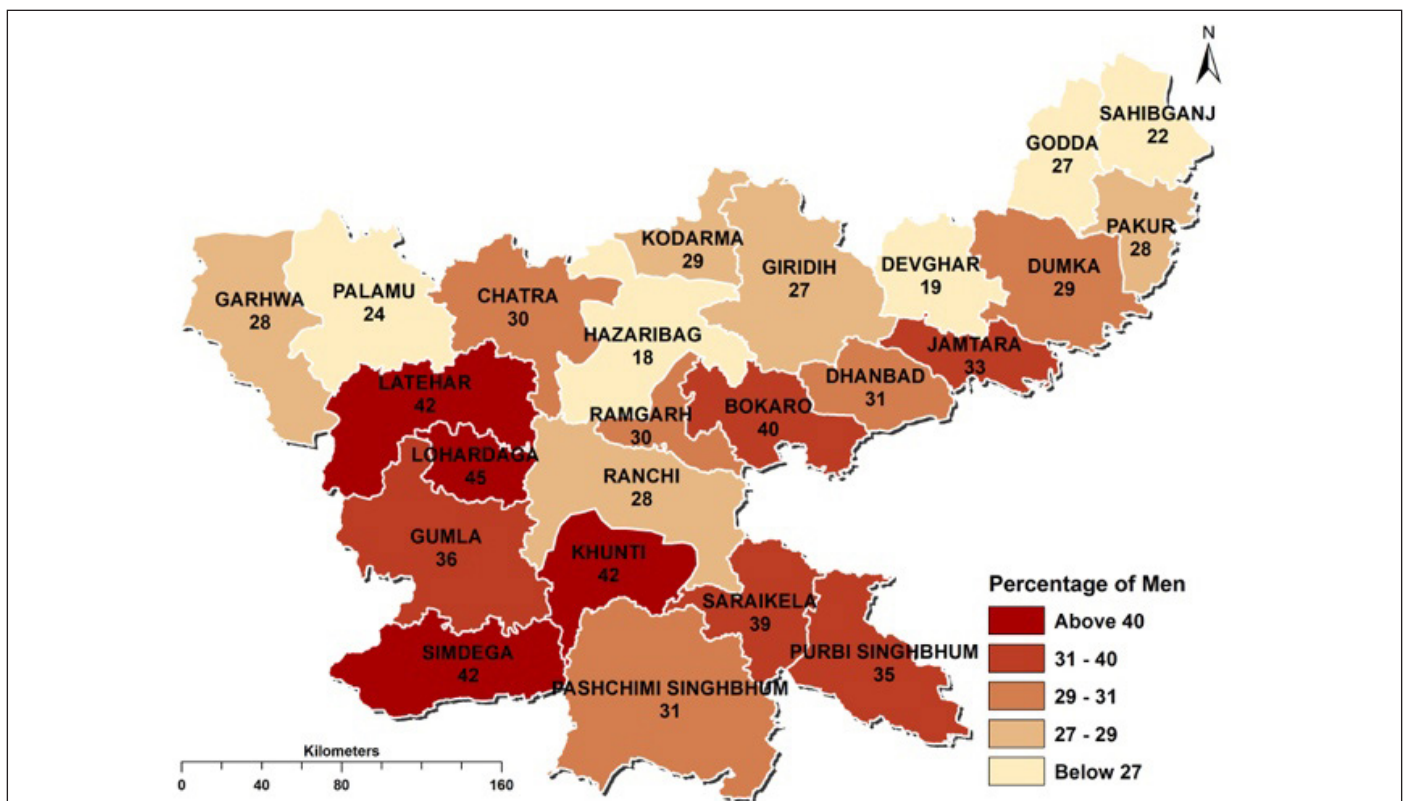
Source: Compiled using data from National Family Health Survey, 2015-16

Map 12.3: Proportion of women who are anaemic (2015-16) (%)



Source: Compiled using data from National Family Health Survey, 2015-16

Map 12.4: Proportion of men who are anaemic (2015-16) (%)



Source: Compiled using data from National Family Health Survey, 2015-16

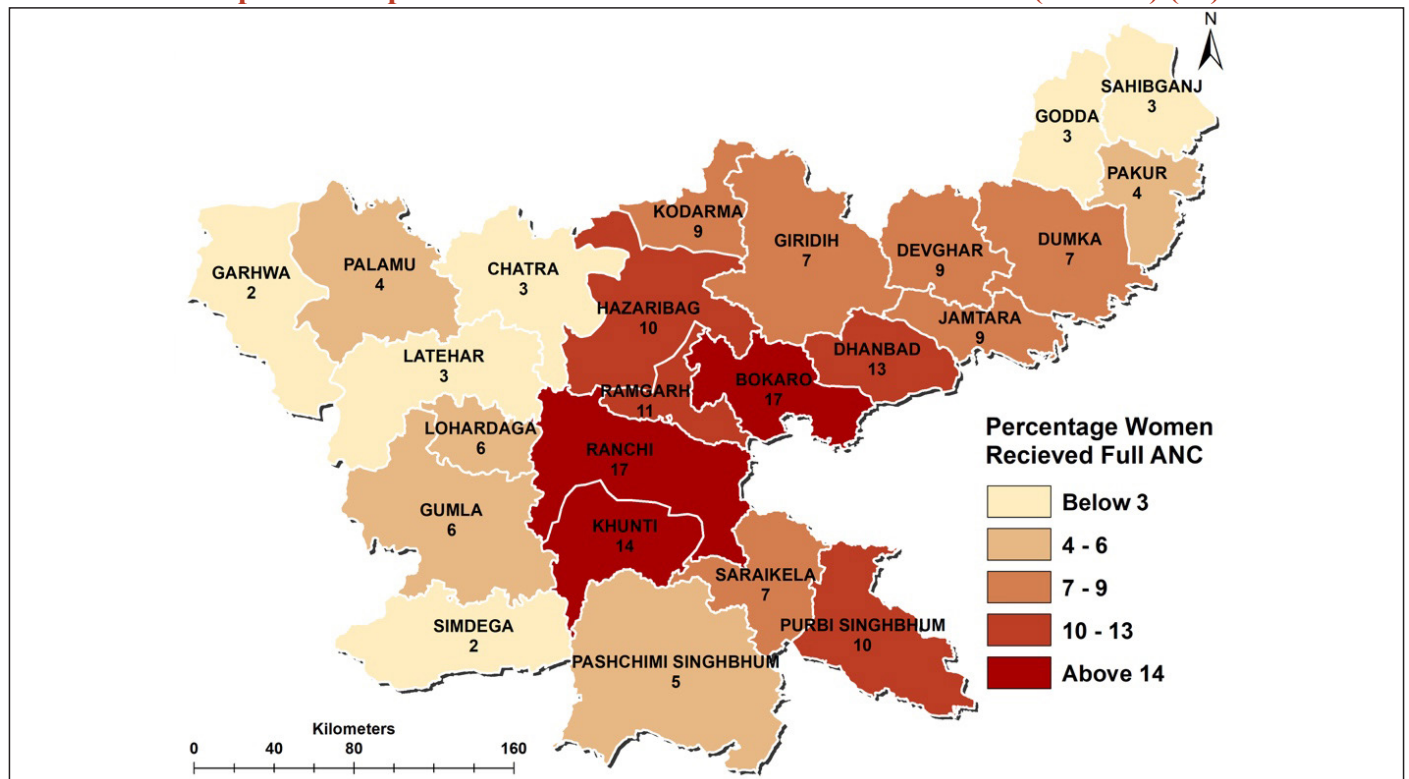
Maps 12.3 and 12.4 show the proportion of women and men who were anaemic, i.e., haemoglobin level less than 12 and 13 grams per deciliter (g/dl) for women and men respectively in Jharkhand. The prevalence of anaemia among non-pregnant women and men in Jharkhand was 65.3 per cent and 30 per cent respectively. The highest percentage of anaemic women was found in Simdega and Saraikela, while Latehar and Palamu have the lowest proportion of anaemic women. Among men, anaemia was highest in the district of Lohardaga and lowest in Hazaribagh.

Another health outcome indicating maternal health is Maternal Mortality Ratio (MMR). According to the latest estimates provided by the Annual Health Survey (2012-13), the MMR of Jharkhand was 245 against the national average of 167. As per the Sample Registration System (SRS) (2001-03), the main causes of maternal deaths in India were haemorrhage (38 per cent), sepsis (11 per cent), and abortion (8 per cent). Many of these causes are preventable and can be treated. Pregnancy-related care is crucial for the health of the mother and child. Hence, improving access to quality maternal health

is essential. However, despite concerted efforts made to ensure delivery care, utilization of maternal healthcare services is marred by stark inequalities.

Antenatal care (ANC) is the care provided to women during pregnancy usually by a doctor, an Auxiliary Nurse Midwifery (ANM), or other health professional. ANC monitors the pregnancy for any signs of complications and provides treatment for pre-existing and concurrent problems of pregnancy. It also provides advice and counselling on preventive care, nutritional intake during pregnancy, delivery care, breastfeeding practices, and postnatal care. The main components of ANC interventions include ANC visits, distributing tetanus toxoid (TT) injections, iron-folic acid (IFA) tablet and syrup, apart from counselling. Literature asserts that ANC has a substantial impact on improving maternal and child outcomes. The World Health Organization (WHO) has recommended that at least four antenatal care (ANC) visits should be made by all pregnant women and must be assessed by or under the supervision of a skilled attendant (World Health Organization, 2006).

Map 12.5: Proportion of mothers who had full antenatal care (2015-16) (%)

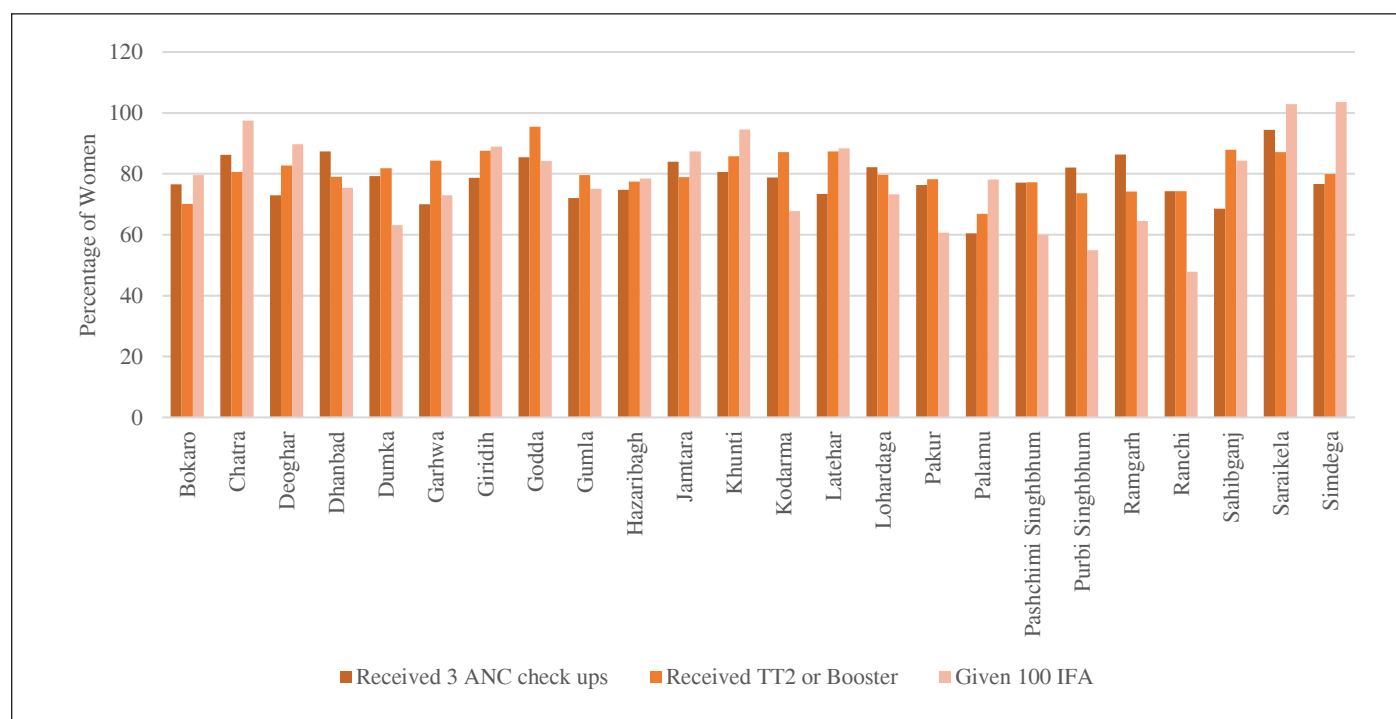


Source: Compiled using data from National Family Health Survey, 2015-16

Map 12.5 shows the proportion of women who received full ANC. Full ANC includes at least four antenatal visits, at least one tetanus toxoid (TT) injection and iron-folic acid tablets or syrup consumed for 100 or more days. The proportion of women receiving full ANC was as low as 8 per cent in Jharkhand, of which almost 18 per cent of women were from the urban areas and around 6 per cent from rural areas. The performance of the state was close to the national average of 21 per cent. Notably, full

ANC coverage was high in the districts of Bokaro, Dhanbad, Khunti and Ranchi. Excluding Khunti, the districts are highly urbanized and provide quality health services. Earlier studies have corroborated that shorter distance to nearest health facility, connectivity and transportation facilities, mother’s educational attainments, etc. are factors contributing to increasing the proportion of women availing ANC services.

Figure 12.3 : Proportion of women who received antenatal care check-ups and its components (as on September 2017) (%)



Source: Health Management Information System, Ministry of Health and Family Welfare, Government of India

Figure 12.3 shows the percentage of women who received ANC check-ups, TT2 injections and IFA tablets to total ANC registration for the period between April 2016 and September 2017 across the districts of Jharkhand. Around 77 per cent of women received ANC check-ups, 79 per cent women received TT2 or booster, and 75 per cent received IFA tablets. In most of the districts, the proportion of women receiving ANC check-ups and its components is higher than the state average. The

proportion of women who received ANC check-ups was higher in the Saraikela district followed by Dhanbad. The proportion of women who received TT2 injections was highest in the district of Godda followed by Sahibganj, while the distribution of IFA Tablets was highest in the districts of Simdega and Saraikela. The proportion of women who received IFA tablets in the districts of Simdega and Saraikela was above 100 per cent. It was observed that women who had registered for ANC in the previous financial

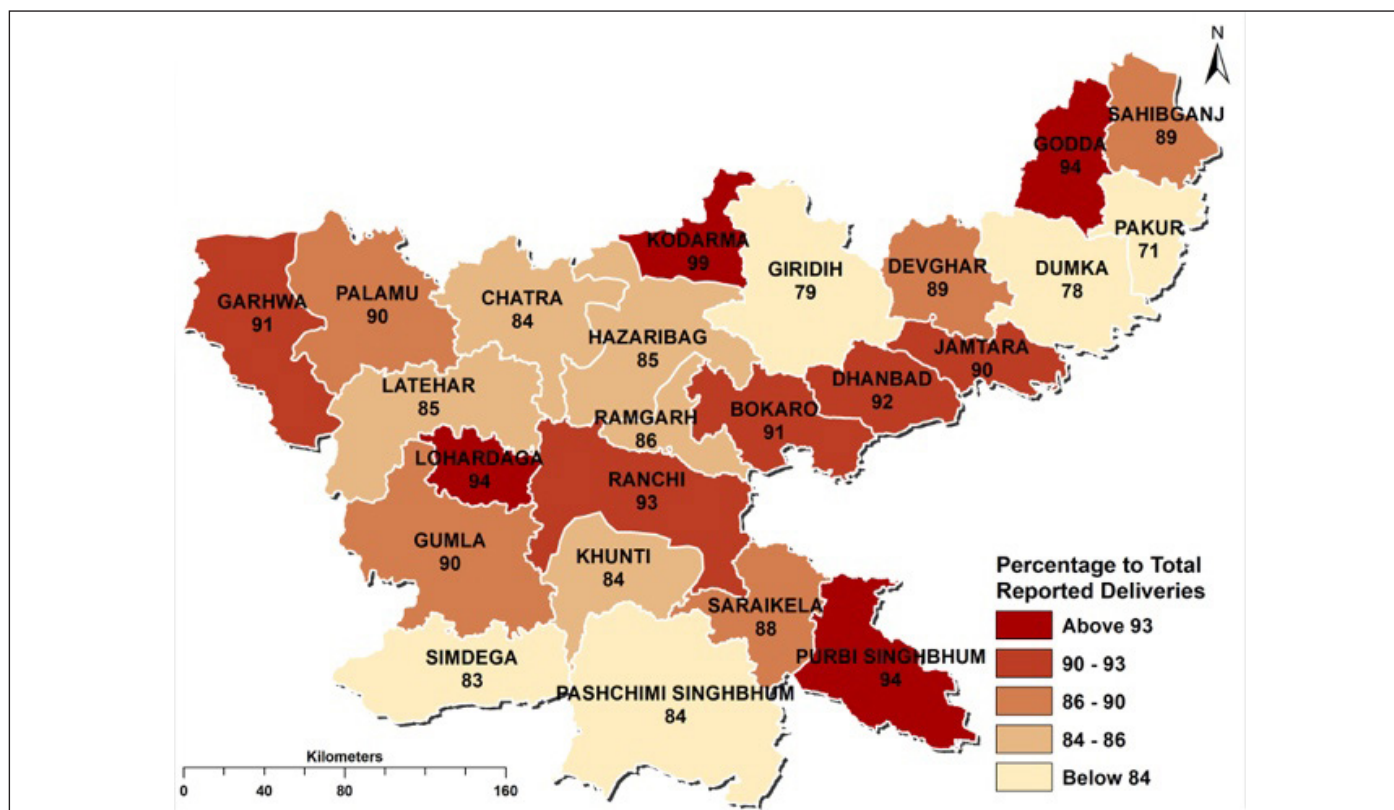
year (FY), i.e., 2015-16, received IFA tablets during 2016-17. Hence, the number of women who received IFA tablets during the current FY was higher than the number of women registered for ANC in the previous FY.

ANC registration becomes crucial to ensure proper care during pregnancy. One of the components of ANC is to provide counselling to pregnant women about delivery, postnatal danger, and importance of institutional delivery. Hence, women registered under ANC are more likely to have institutional delivery. Institutional deliveries or safe delivery are important if maternal and child mortality rates are to be improved, as most of the deaths during pregnancy occur due to the absence of necessary obstetric care. According to the recent estimates provided by Jharkhand Rural Health Mission Society (JRHMS),

almost 88 per cent deliveries were conducted in institutions, while 91 per cent deliveries were by skilled birth attendants (SBA). However, 12 per cent of deliveries continues to take place at home in the presence of untrained medical staff or traditional birth attendants commonly known as ‘Dai.’ The proportion of women who had institutional deliveries and safe deliveries to total reported deliveries across the districts of Jharkhand is shown in Map 12.6 and Map 12.7.

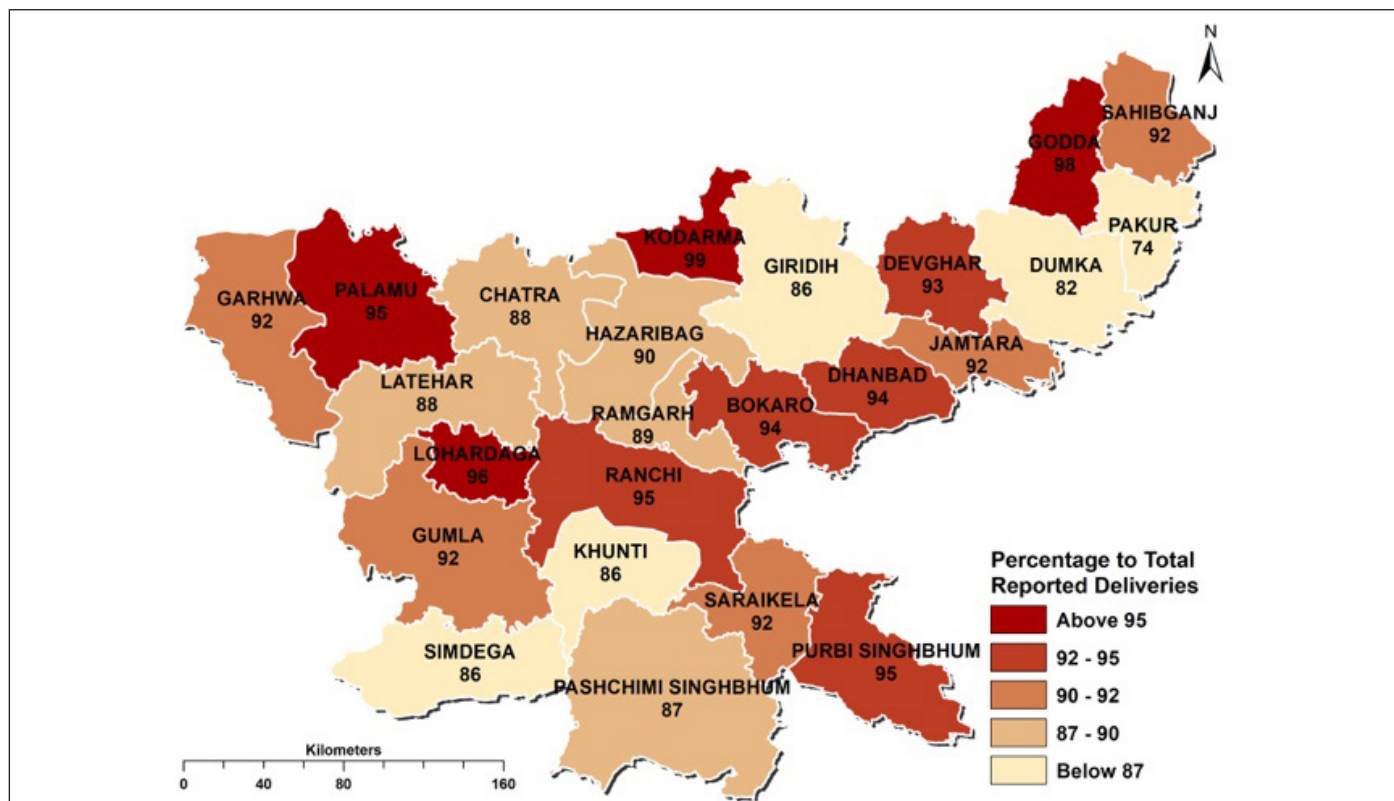
Map 12.6 illustrates that the high-performance districts in terms of institutional delivery were Koderma followed by Purbi Singhbhum and the least performing district was Pakur. Similarly, the proportion of safe delivery as shown in Map 12.7 was highest in the Koderma district followed by Godda and the lowest was in Pakur.

Map 12.6: Proportion of women who had institutional deliveries (as on September 2017) (%)



Source: Compiled using data from Health Management Information System, Ministry of Health and Family Welfare, Government of India

Map 12.7: Proportion of women who had safe deliveries (%) (as on September 2017)



Source: Compiled using data from Health Management Information System, Ministry of Health and Family Welfare, Government of India

Child Health

The health status of children is an important indicator of development. India has a significant contribution to child deaths in total child deaths. Undernutrition is one of the most widely cited reasons for child deaths apart from other communicable diseases. Addressing the problem of undernutrition among children during their early ages is indispensable, as undernutrition has a long-term bearing on the physical and mental development of a child. Poor nutritional status increases vulnerability towards childhood diseases such as diarrhoea and acute respiratory infections. Nutritional deprivation among children is prevalent throughout India. However, it is more pronounced in the high-focus states or empowered action group states. The nutritional status of children is measured

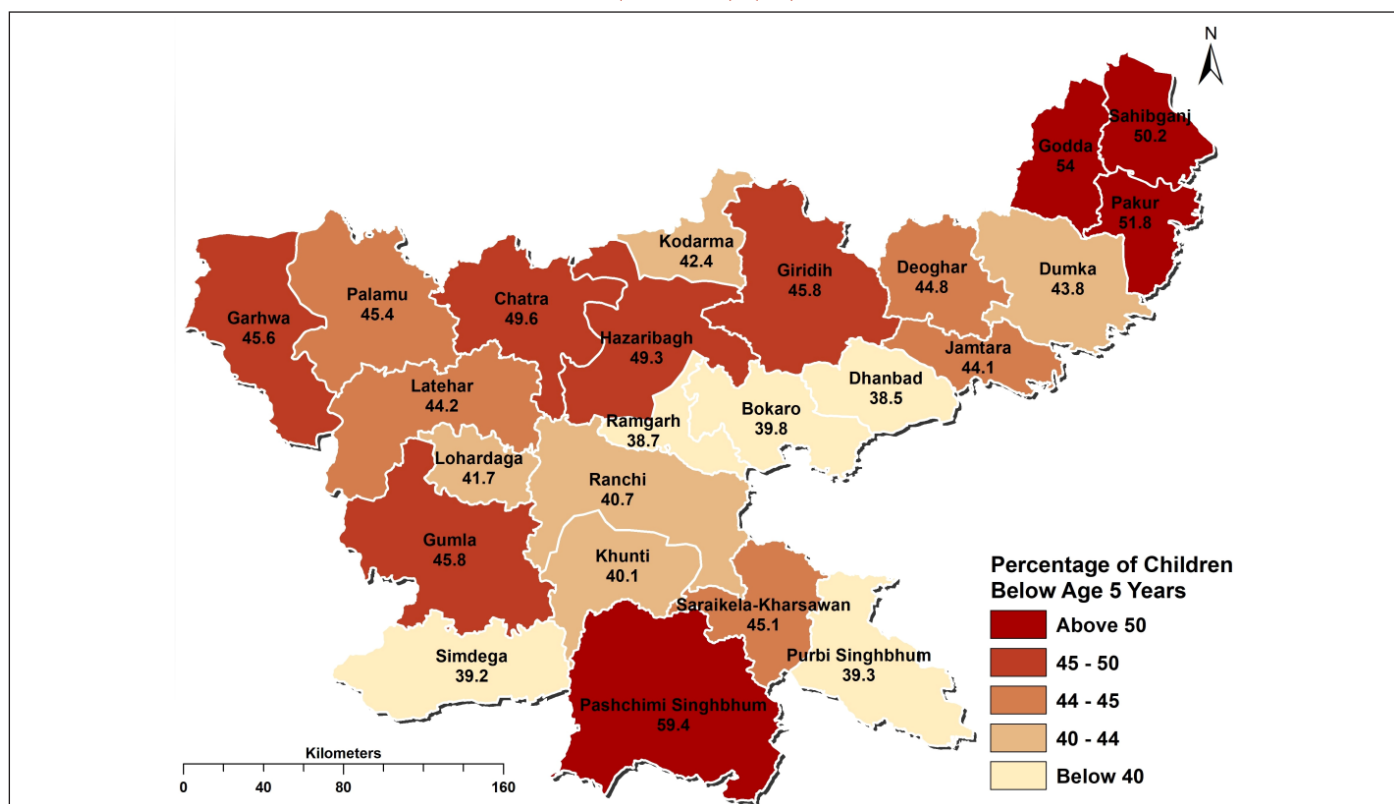
in terms of three anthropometric measurements used by WHO standards (WHO, 1995). They are height-for-age or stunted, weight-for-height or wasted and weight-for-age or underweight. The three indicators mentioned is expressed in standard deviation units (Z-scores) from the median of the reference population. A cut-off point below minus two standard deviations (-2 SD) from the median of the reference population is chronically malnourished, while a cut-off below minus three standard deviations (-3 SD) from the median of the reference population is considered to be severely malnourished.

According to the recent estimates, the proportion of children who are chronically stunted has fallen from 51 per cent (Clinical, Anthropometric and Biochemical-Annual Health Survey, 2014) to 45

per cent (NFHS-4). Contrarily, the proportion of chronically wasted and underweight children has increased from 21 per cent to 30 per cent and 46 per cent to 48 per cent, respectively. Across the districts, the proportion of chronic malnourishment as per the three indices further aggravates. Pashchimi Singhbhum has the highest percentage of chronically

stunted (59.4) and chronically underweight (66.9) children, while the percentage of chronically wasted children was the highest in Khunti. Contrarily, the districts with the lowest rate of chronically stunted, wasted and underweight children were Dhanbad, Koderma and Giridih.

Map 12.8: Proportion of children under 5 years who are stunted (2015-16) (%)

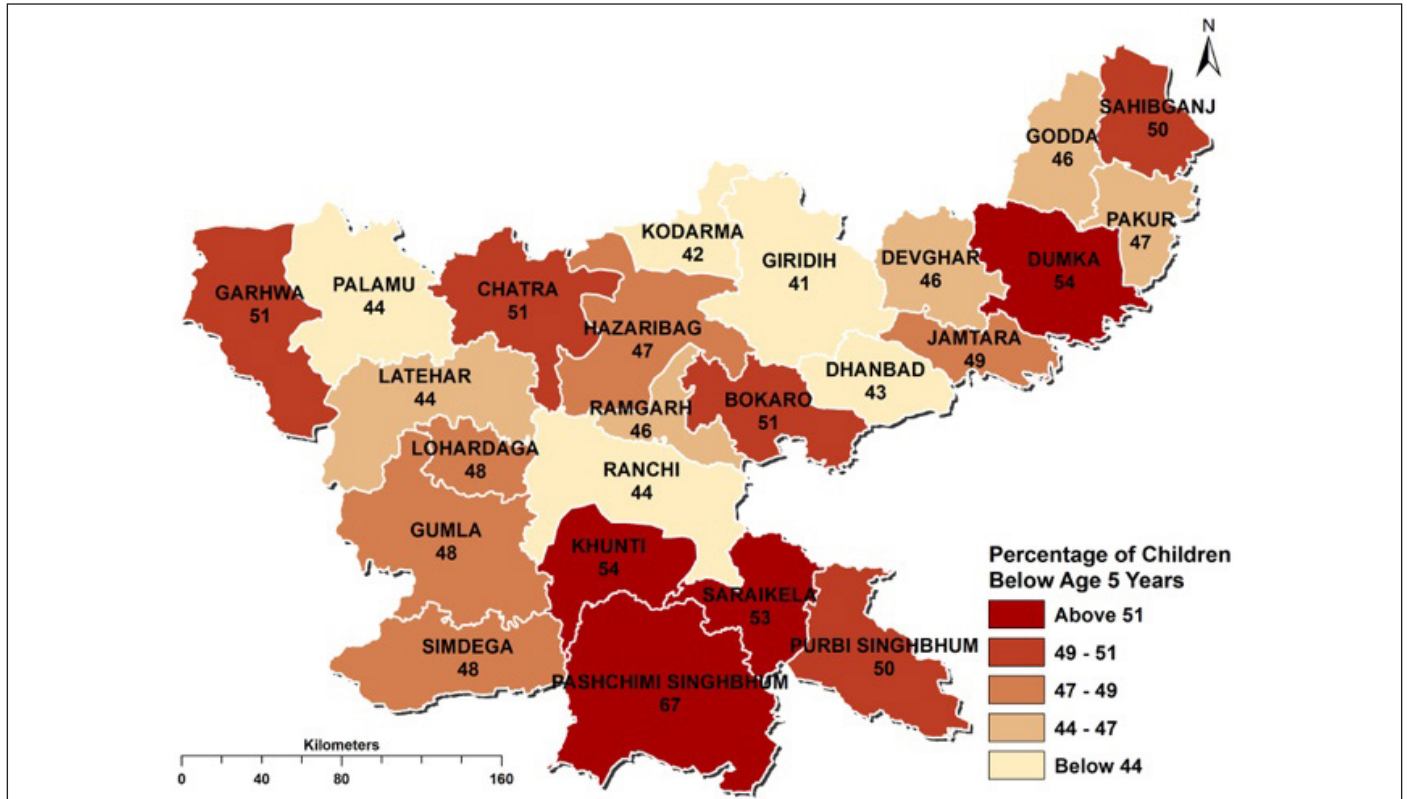


Source: Compiled using data from National Family Health Survey, 2015-16

Breastfeeding infants have significant effects on the health of the mother and child. For infants, proper breastfeeding soon after birth is crucial for the physical and mental growth. Furthermore, breastfeeding improves the nutritional status of children, thereby reducing morbidity and mortality. While for the mother, breastfeeding has an impact on the fertility levels and the length of birth intervals.

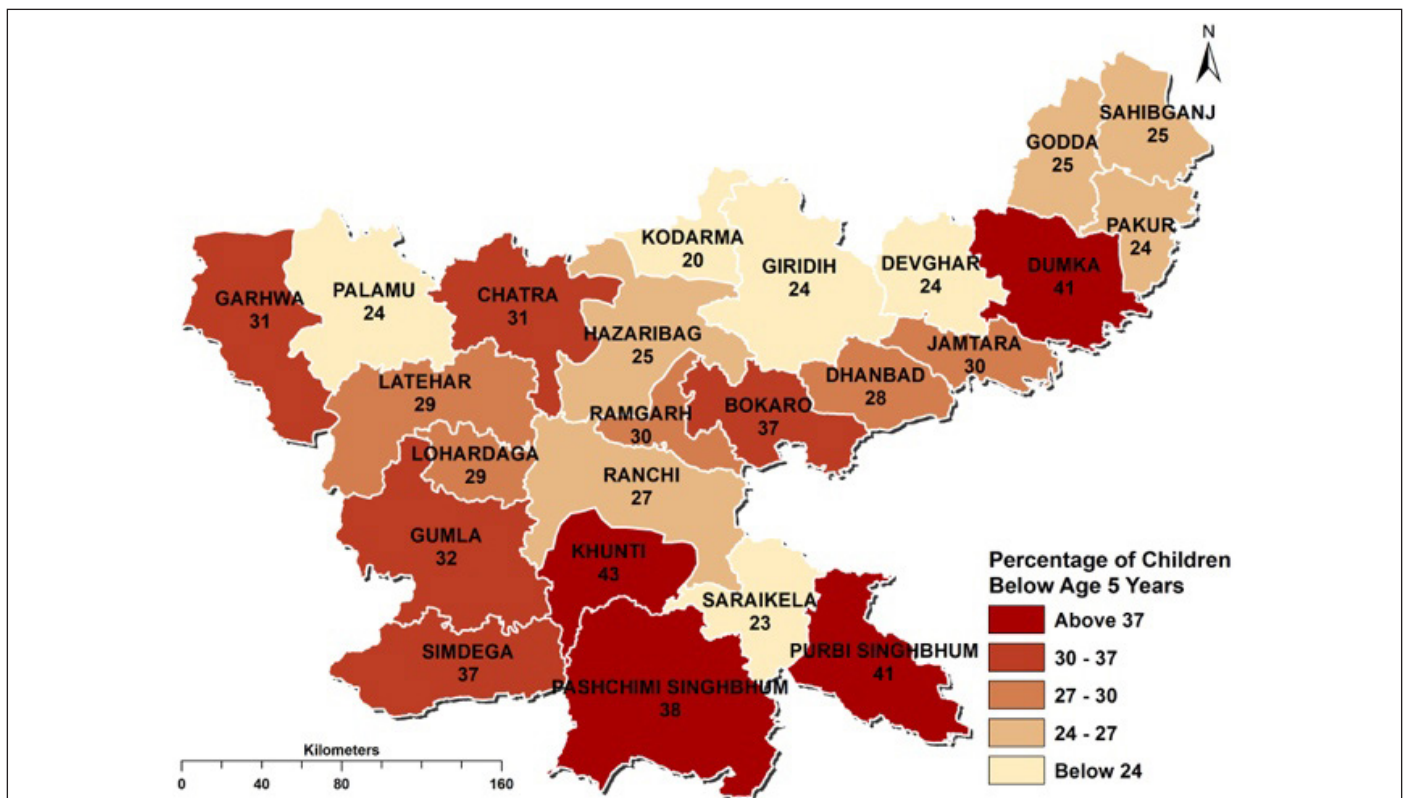
Mothers are also recommended early initiation of breastfeeding which is beneficial for both, mother and child. Exclusive breastfeeding during the initial few months of childbirth is essential as it is uncontaminated and contains all the necessary nutrients for children. The WHO and UNICEF strongly recommend early initiation of breastfeeding and exclusive breastfeeding for six months.

Map 12.9: Proportion of children under 5 years who are underweight (2015-16) (%)



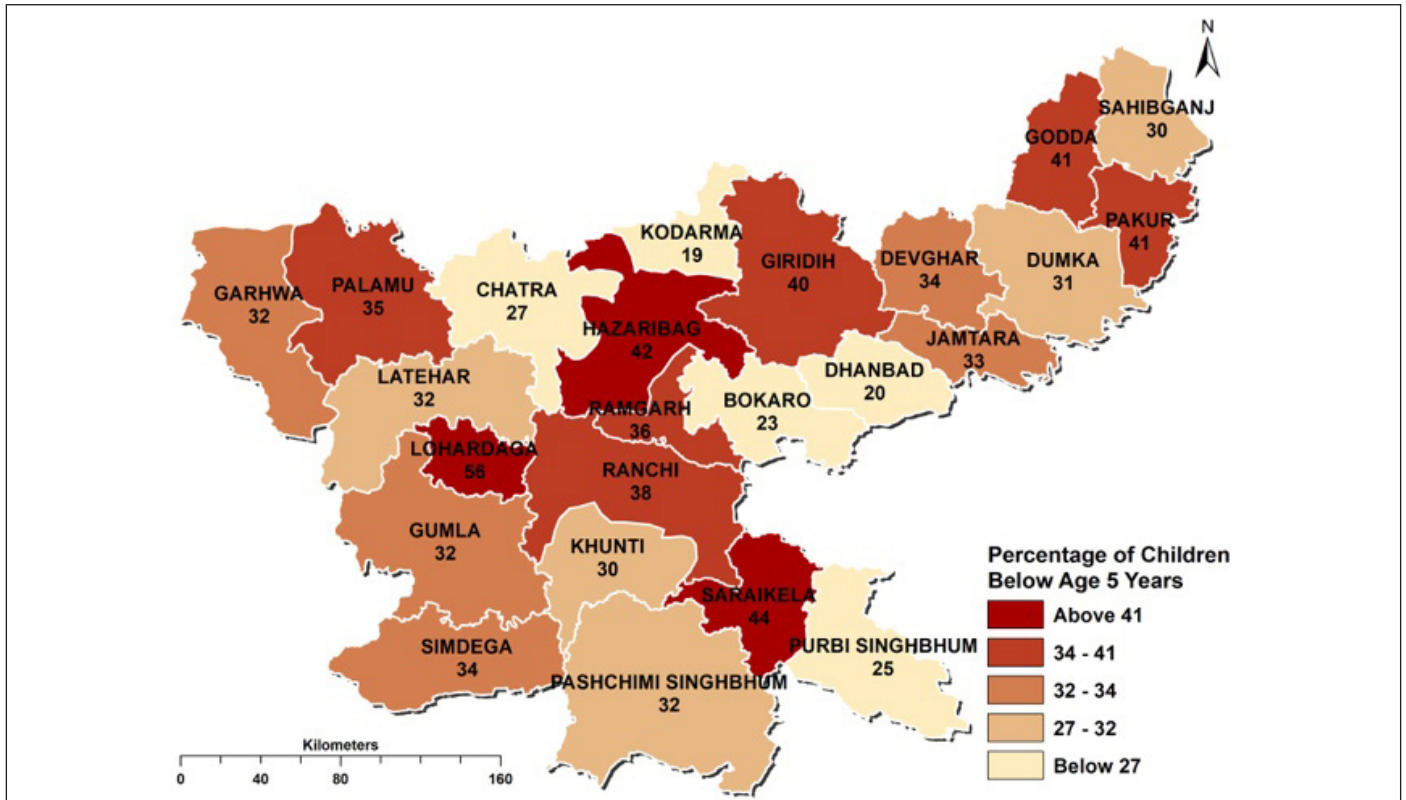
Source: Compiled using data from National Family Health Survey, 2015-16

Map 12.10: Proportion of children under 5 years who are wasted (2015-16) (%)



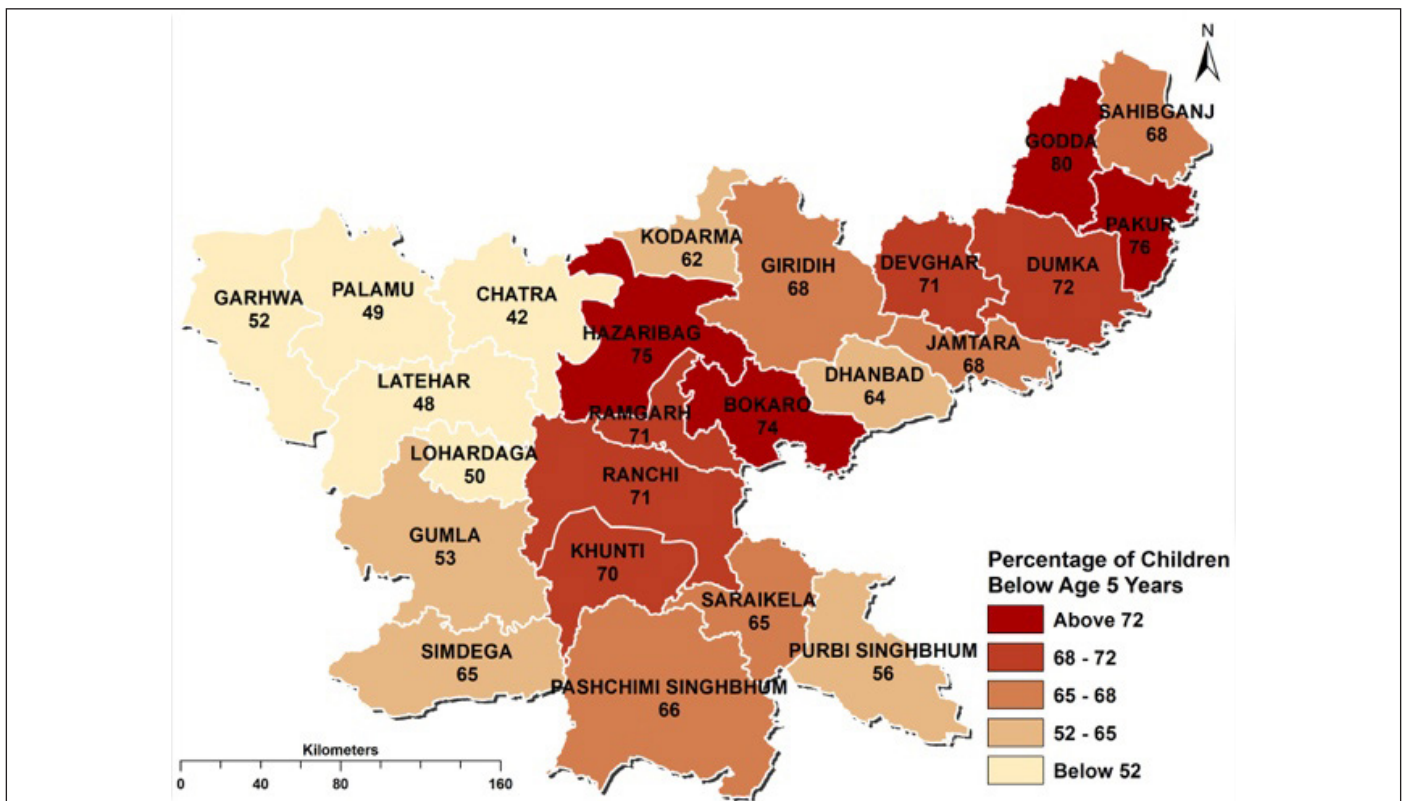
Source: Compiled using data from National Family Health Survey, 2015-16

Map 12.11: Proportion of children under age 3 years breastfed within one hour(2015-16) (%)



Source: Compiled using data from National Family Health Survey, 2015-16

Map 12.12: Proportion of children under age 6 months exclusively breastfed (2015-16) (%)



Source: Compiled using data from National Family Health Survey, 2015-16

Maps 12.11 and 12.12 show the proportion of children who were breastfed within one hour of birth and exclusively breastfed for six months. A higher proportion of children were breastfed within one hour of birth in the districts of Lohardaga followed by Saraikela, while it was lowest in the districts of Koderma and Dhanbad. Not surprisingly, the districts with the lower percentage of children being breastfed within one hour of birth are highly urbanized. Also, the districts with the higher proportion of children exclusively breastfed are Godda followed by Pakur. Children from Chatra and Latehar were less exclusively breastfed compared to other districts of Jharkhand.

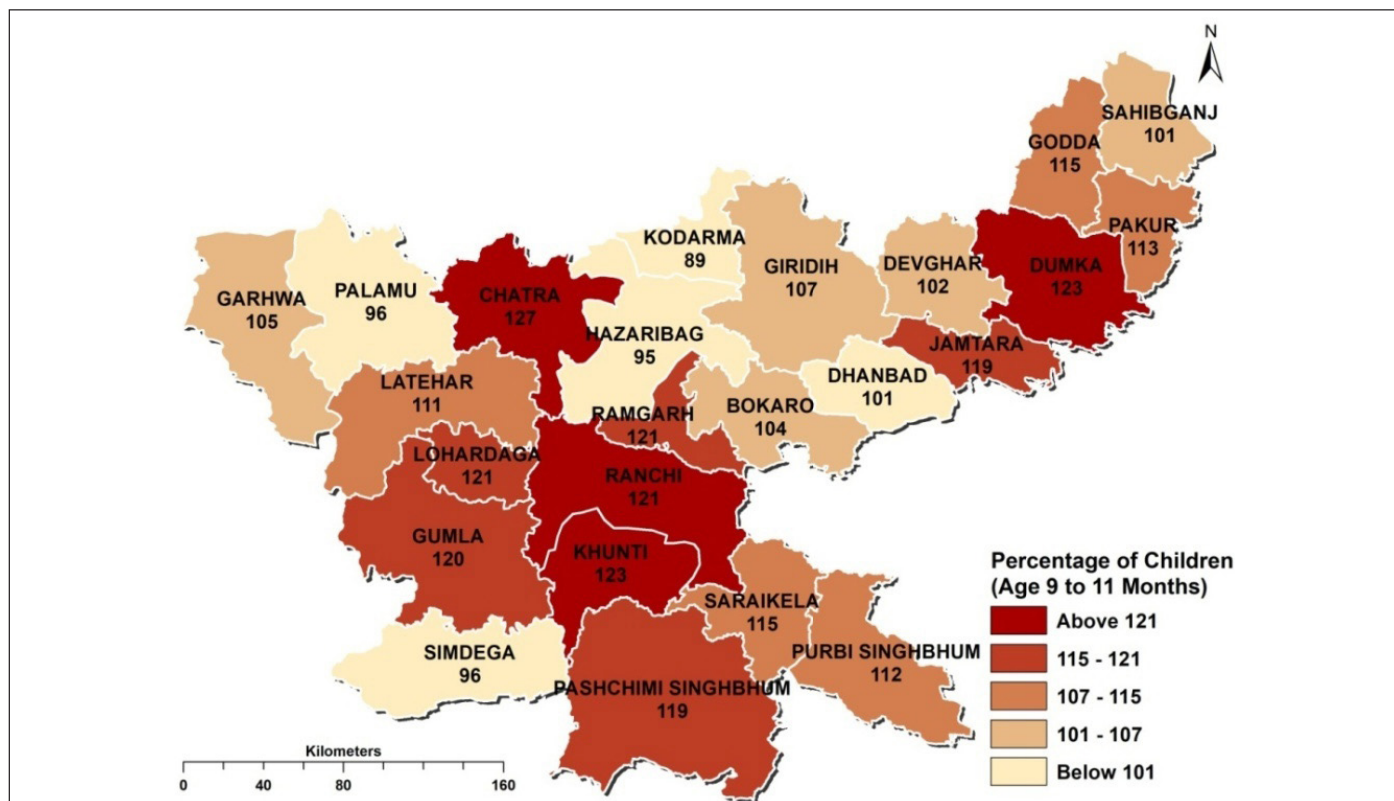
Immunizations

As mentioned above, the infant mortality rate of Jharkhand has succeeded to fall below the national average; however, the causes of infant deaths can be reduced and prevented, if timely action is initiated. The health status of the children can be

improved by routine immunization. Disease-specific immunization has a significant impact on reducing infant and child mortality rates. Immunization of children against diseases such as diphtheria, whooping cough, tetanus, polio, measles, etc. is one of the vital factors for reducing infant and child mortality. According to WHO, a child is fully vaccinated when they have received a vaccination against tuberculosis (BCG), three doses of diphtheria, pertussis, and tetanus (DPT) vaccine, three doses of the polio vaccine, and one dose of the measles vaccine by the age of 12 months.

Map 12.13 shows the district level coverage of immunization among children of age group 9-11 months. The percentage of children fully immunized to total live births reported during the financial year 2016-2017 shows more than 100 per cent coverage in selected districts. The percentage exceeds 100 because the total number of children who received full immunization also consisted of children reported to be alive during the FY 2015-16.

Map 12.13: Proportion of children aged 9-11 months fully immunized (as on September 2017) (%)



Source: Compiled using data from Health Management Information System, Ministry of Health and Family Welfare, Government of India

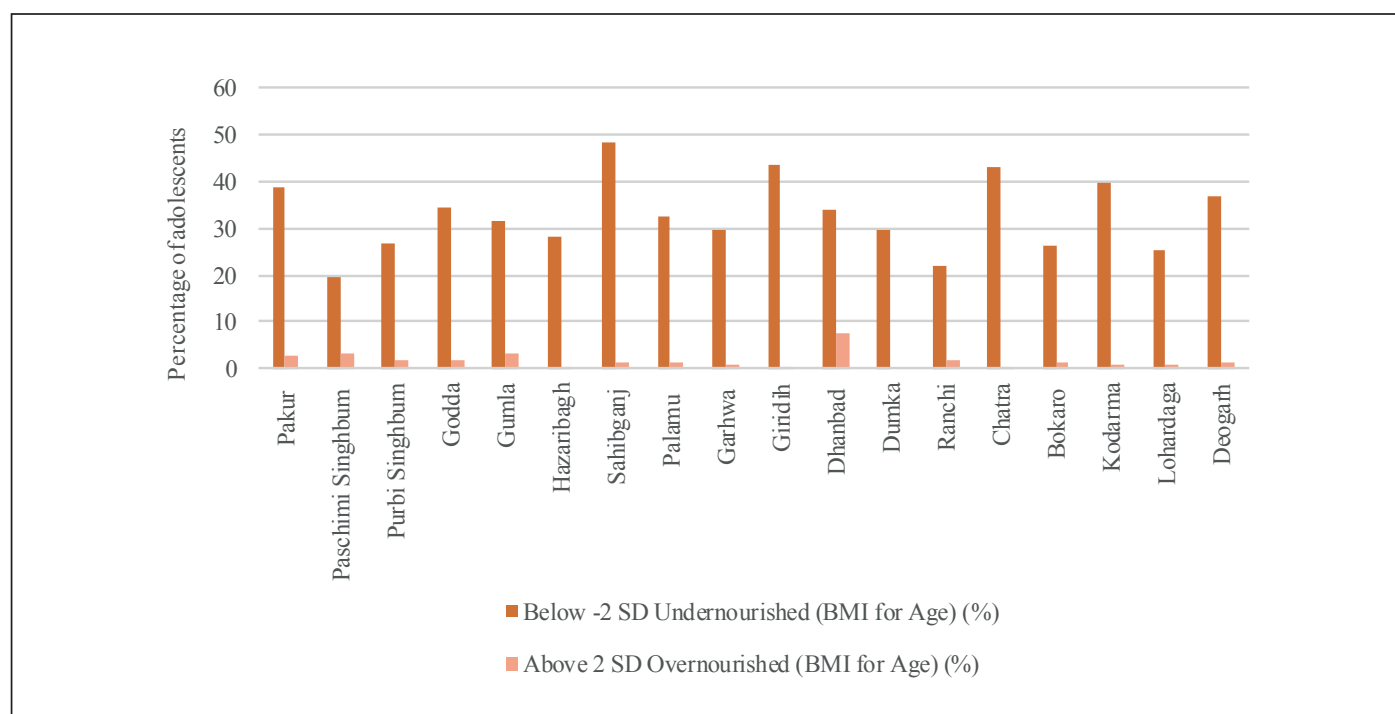
Adolescent Health

Adolescence is considered to be the most crucial period as rapid phases of human development occur during this period, however, very little is known about this cohort. This phase is also vital because of the associated risks of illness and deaths due to accidents, injuries, early pregnancy and sexually transmitted infections. And also, due to lifestyle diseases caused due to smoking, consumption of alcohol and other drug abuse, risky sexual behaviour, etc. Hence, ensuring that adolescents receive timely counselling and guidance for the mental development and adequate nutrition for physical development is of utmost significance. Moreover, investing in the healthy development of adolescents is pertinent for a healthy adulthood. Although monitoring adolescence becomes essential, very little information is available

on health-related parameters to assess their health conditions.

The Clinical, Anthropometric and Biochemical-Annual Health Survey (CAB-AHS) data provides information on health status across 18 districts of Jharkhand. Undernourishment and over-nourishment measured by the BMI status show that almost 30 per cent children belonging to age group 5-18 years are chronically undernourished. Chronic undernourishment is reported to be highest in Sahibganj district and lowest in Paschimi Singhbhum district of Jharkhand. Over-nourishment, represented with a BMI value above 25 kg/m², was low across all districts of Jharkhand. However, over-nourishment was high in Dhanbad, which can be attributed to the unhealthy living style in the urban areas.

Figure 12.4 : Proportion of adolescents who are undernourished and over-nourished (2014) (%)



Source: Clinical, Anthropometric and Biochemical-Annual Health Survey, 2014

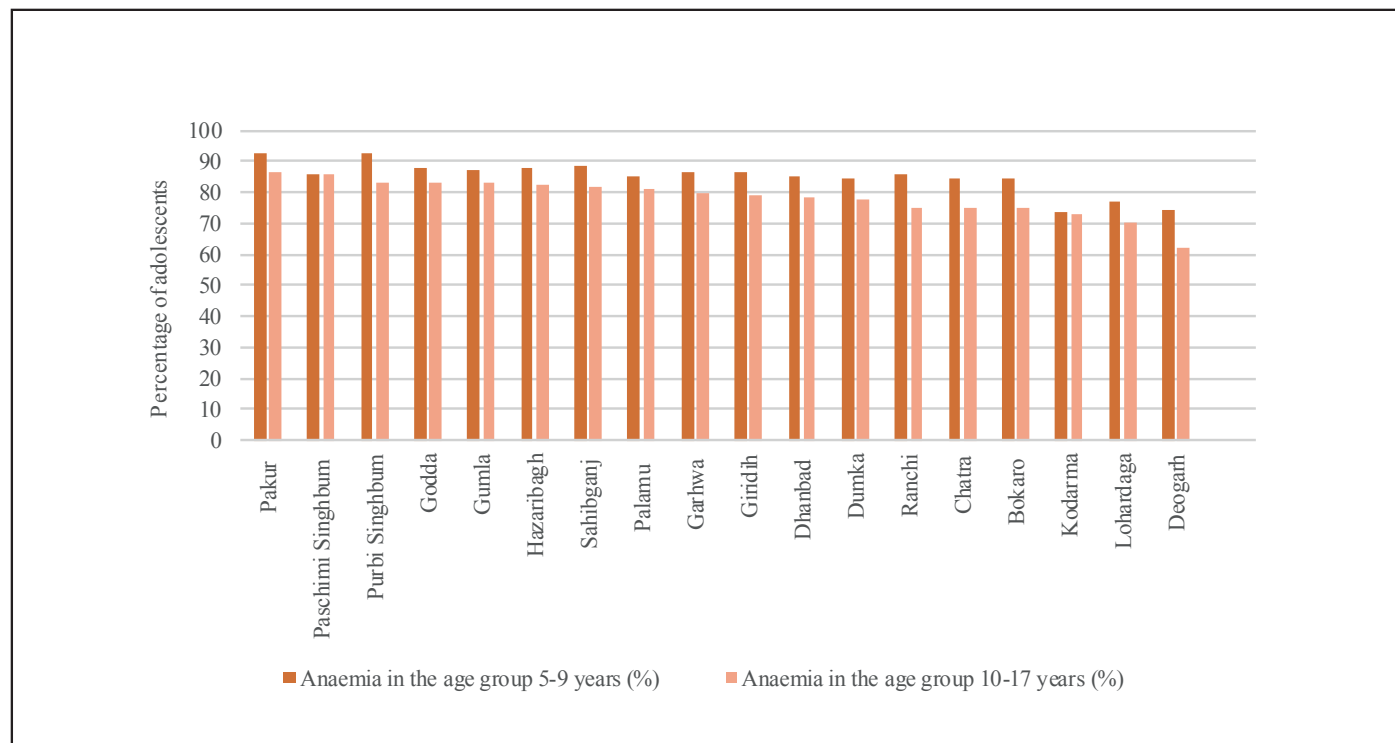
Anaemia levels is another indicator for measuring the health status. It has a severe impact on the mortality rates, weakness, increased morbidity from communicable diseases, low birth weight of infants,

etc. Figure 12.5 shows anaemia levels of adolescents across districts in Jharkhand. Almost all the districts of Jharkhand have high anaemia levels. On an average, 85.7 per cent of children of age group 5 to

9 years and 78.5 per cent of children of age group 10-17 years suffer from chronic anaemia. Districts with a high proportion of children in the age group 5 to 9 years suffering from chronic anaemia are Pakur

and Purbi Singhbhum, while Pakur and Paschimi Singhbhum have the highest proportion of anaemic children in the age group of 10-17 years.

Figure 12.5 : Proportion of adolescents who are anaemic (2014) (%)



Source: Clinical, Anthropometric and Biochemical-Annual Health Survey, 2014

Family Planning

Family Planning was always a key priority of the government. India became the first country to launch the family planning programme in 1952, with the objective of lowering birth rate. Since then

the programme has undergone rigorous transitions. Currently, the programme focuses on reducing infant and child mortality along with population stabilization. The various contraceptive methods provided by the public sector is shown in the table below.

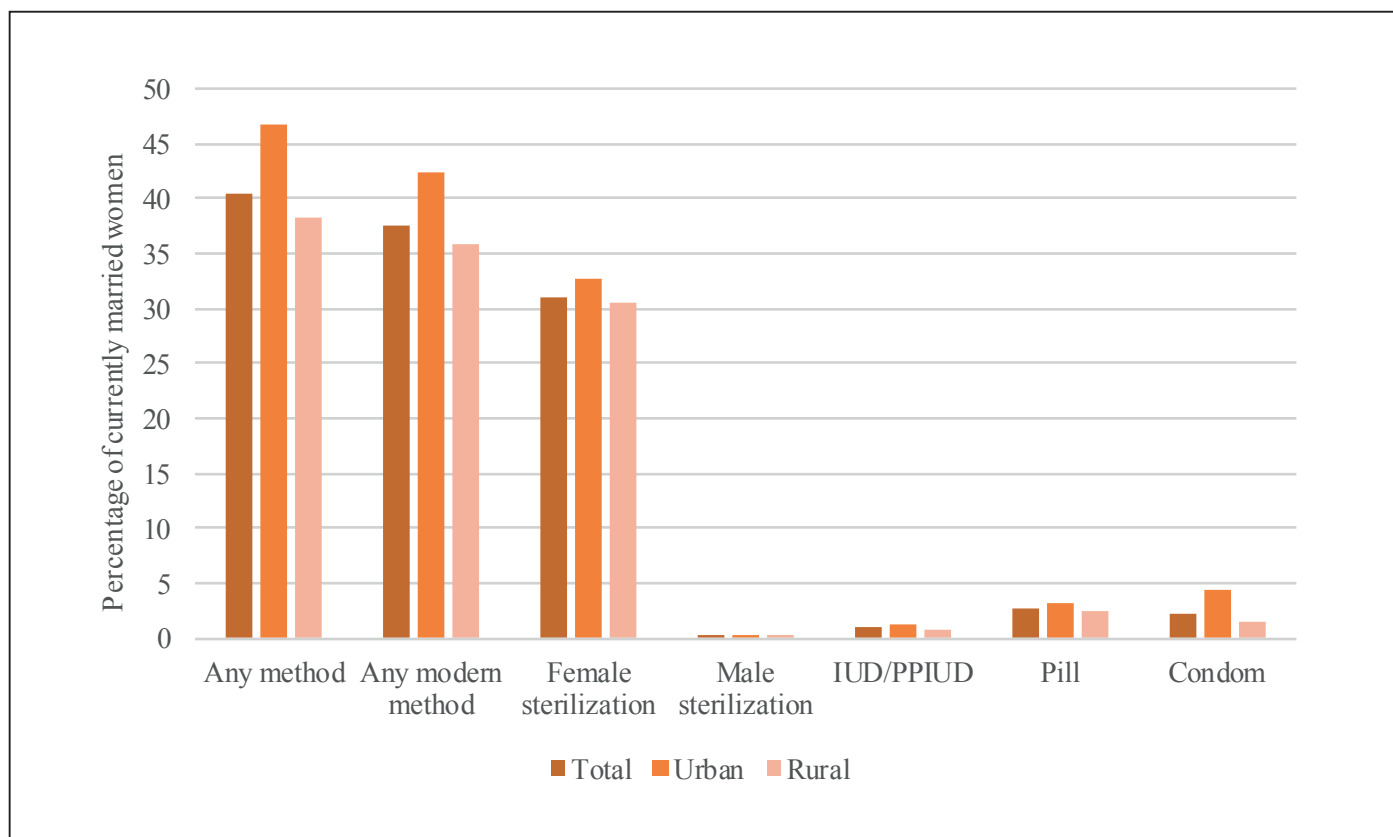
Table 12.3: Contraceptive methods in India

| Spacing Methods | Limiting Methods |
|---|------------------------|
| IUCD 380 A and Cu IUCD 375 | Female Sterilization |
| Injectable Contraceptive DMPA (Antara) | Laparoscopic |
| Combined Oral Contraceptive (Mala-N) | Minilap |
| Centchroman (Chhaya) | |
| Emergency Contraceptive Pill (Ezy Pill) | Male Sterilization |
| Progesterone-Only Pill (POP) | No Scalpel Vasectomy |
| Condoms (Nirodh) | Conventional Vasectomy |

Use of contraceptive by types of method indicate the dominance of female-oriented contraceptives methods in Jharkhand. Female sterilization as a method of contraception was higher in the urban areas as compared to the rural areas. The usage of

condoms followed by pills was the next preferred technique of contraception. Evident from figure 12.6, male sterilization was the least preferred option for contraception in Jharkhand.

Figure 12.6 : Use of Family planning techniques in Jharkhand (2015-16) (%)



Source: National Family Health Survey, 2015-16

Health System Strengthening

The NHM is focused on strengthening the health system to improve the efficiency, quality and accountability of health services delivery in the country. Strengthening the health system of Jharkhand is significant to achieve better levels of health indicators. The specific domains of health system strengthening are imperative for an inclusive achievement of health targets. The health workforce and health infrastructure are considered to be important components for strengthening the health system. The other components such as medicine, technology and finance are equally essential for

the health systems. However, in the absence of adequate manpower and infrastructure, advanced technology and finance will be redundant. Despite the significance ascribed to health manpower and infrastructure, dissemination of data on these aspects is poor. Also, irregular dissemination of information on the deployment of health workers restricts the assessment of shortfalls in health manpower and infrastructure. Moreover, the unprecedented and irregular growth of the private sector is a critical shortcoming the health sector faces. Given this lacuna, information related to the private health sector and health services in the urban areas is unavailable. On the contrary, the rural health system

in India which follows the three-tier health system provided routine information of the manpower and facilities available. In the following sections, the status of health manpower and infrastructure is detailed for the rural areas alone.

Human resource for Health

The NHM undertakes the responsibility to provide financial and physical assistance to strengthen the health system by employing and retaining manpower. Special focus is given to the remote and underserved areas by providing additional incentives. Human resource for health is one of the most important components. As any service requires equipped manpower to perform the activities, health manpower includes nurses, doctors, specialists, paramedical staff, etc. As per the National Health Profile of India (2017), the average population served by Government Allopathic doctor in Jharkhand was 18518. Unavailability of data on health manpower is one of the biggest challenges faced by the health sector.

Health infrastructure

The NHM also provides financial support to strengthen the public health system including upgradation of existing or construction of new infrastructure. Health infrastructure is of two kinds- service infrastructure and educational infrastructure. Service infrastructure in health includes details about the number of allopathic hospitals, hospital beds, Indian System of Medicine & Homeopathy hospitals, Sub Centres (SC), Public Health Centres (PHC), Community Health Centres (CHC), Blood banks, Eye Bank, Mental hospitals, and Cancer hospitals. Alternatively, educational infrastructure includes details of medical colleges, students enrolled in M.B.B.S. course, post-graduate degree/diploma in medical and dental colleges, admissions to BDS &

MDS courses, AYUSH institutes, nursing courses, and para-medical courses.

Box 12.2: 108 Ambulance Service

The President of India on November 15th, 2017 launched 108 Ambulance Service Scheme of Rs. 90 crores. Under the scheme, 329 ambulance service will be provided for 24 hours free of cost across the state. On the foundation day of Jharkhand, 33 ambulances were flagged off by the Health Minister in the RCH Campus, Namkum. Of the total, 289 ambulances will be equipped with basic life support facility, while the remaining 40 will have advanced life support facilities. The service was started Ranchi, East Singhbhum and Garhwa.

Table 12.3 shows the availability of health facilities available across the districts of Jharkhand. In total, 4935 health facilities were available during 2016-17. Of the total health facilities existing 4635 facilities were reported to be active. The table 12.4 shows the status of medical education in Jharkhand. The three government colleges together have an admission capacity of 350, with 2514 beds attached. Jharkhand also contributes significantly to the production of health workers; however, it is one of the states which has high inequality in health workers across cadres and regions.

Box 12.3: Work starts on new AIIMS at Jharkhand, Gujarat

Two new AIIMS had been promised in the Budget 2017-18 by the Central Government at Jharkhand and Gujarat. The site in Deoghar, offered by the state government, has been finalised for establishment of an AIIMS in Jharkhand, subject to fulfilment of certain conditions.

Table 12.4: Availability and status of health facilities in Jharkhand (as on November 2017)

| Districts | SC | PHC | CHC | SDH | DH | Total | SC | PHC | CHC | SDH | DH | Total |
|---------------------|----------------|-----|-----|-----|----|-------|-------------------|-----|-----|-----|----|-------|
| | Total Facility | | | | | | Active Facilities | | | | | |
| Bokaro | 125 | 19 | 17 | 3 | 1 | 165 | 123 | 19 | 16 | 3 | 1 | 162 |
| Chatra | 94 | 8 | 7 | 0 | 1 | 110 | 94 | 8 | 6 | | 1 | 109 |
| Deoghar | 181 | 8 | 9 | 1 | 1 | 200 | 180 | 8 | 9 | 1 | 1 | 199 |
| Dhanbad | 150 | 31 | 18 | 1 | 1 | 201 | 143 | 29 | 18 | 1 | | 191 |
| Dumka | 255 | 40 | 22 | 0 | 1 | 318 | 254 | 37 | 21 | | 1 | 313 |
| Garhwa | 124 | 10 | 9 | 1 | 1 | 145 | 123 | 10 | 7 | 1 | 1 | 142 |
| Giridih | 190 | 17 | 15 | 0 | 1 | 223 | 190 | 17 | 14 | | 1 | 222 |
| Godda | 187 | 11 | 8 | 0 | 1 | 207 | 184 | 11 | 7 | | 1 | 203 |
| Gumla | 248 | 20 | 14 | 0 | 1 | 283 | 243 | 6 | 13 | | 1 | 263 |
| Hazaribagh | 140 | 15 | 11 | 0 | 1 | 167 | 140 | 15 | 10 | | 1 | 166 |
| Jamtara | 135 | 17 | 13 | 0 | 2 | 167 | 132 | 14 | 13 | | 1 | 160 |
| Khunti | 111 | 4 | 10 | 0 | 1 | 126 | 111 | 4 | 9 | | 1 | 125 |
| Koderma | 65 | 8 | 6 | 0 | 1 | 80 | 65 | 8 | 5 | | 1 | 79 |
| Latehar | 105 | 7 | 18 | 0 | 1 | 131 | 104 | 7 | 16 | | 1 | 128 |
| Lohardaga | 75 | 14 | 10 | 0 | 1 | 100 | 74 | 7 | 9 | | 1 | 91 |
| Pakur | 122 | 13 | 17 | 0 | 1 | 153 | 122 | 11 | 15 | | 1 | 149 |
| Palamu | 173 | 28 | 10 | 2 | 1 | 214 | 171 | 28 | 9 | 2 | 1 | 211 |
| Pashchimi Singhbhum | 503 | 19 | 26 | 1 | 1 | 550 | 348 | 17 | 23 | 1 | 1 | 390 |
| Purbi Singhbhum | 270 | 29 | 22 | 1 | 1 | 323 | 260 | 23 | 22 | 1 | 1 | 307 |
| Ramgarh | 58 | 17 | 16 | 0 | 1 | 92 | 58 | 10 | 13 | | 1 | 82 |
| Ranchi | 326 | 37 | 22 | 2 | 1 | 388 | 323 | 35 | 20 | 2 | 1 | 381 |
| Sahibganj | 157 | 16 | 9 | 1 | 1 | 184 | 136 | 12 | 9 | 1 | 1 | 159 |
| Saraikela | 196 | 21 | 9 | 0 | 1 | 227 | 193 | 21 | 8 | | 1 | 223 |
| Simdega | 157 | 7 | 16 | 0 | 1 | 181 | 157 | 7 | 15 | | 1 | 180 |
| Jharkhand | 4147 | 416 | 334 | 13 | 25 | 4935 | 3928 | 364 | 307 | 13 | 23 | 4635 |

Source: Health Management Information System, Ministry of Health and Family Welfare, Government of India

Table 12.5: Availability of medical colleges in Jharkhand (2017)

| Name of the Medical College | City/Town | Govt./Pvt. | Admission Capacity | No. of beds in attached Hospital |
|--|------------|------------|--------------------|----------------------------------|
| M G M Medical College | Jamshedpur | Govt. | 100 | 514 |
| Patliputra Medical College | Dhanbad | Govt. | 100 | 500 |
| Rajendra Institute of Medical Sciences | Ranchi | Govt. | 150 | 1500 |
| | Jharkhand | Total | 350 | 2514 |

Source: National Health Profile, 2017

Conclusion

The health situation in Jharkhand has witnessed significant improvements compared to the previous year. Moreover, most of the health parameters in the state are better compared to the other High Focus States, indicating the efforts made by the Government. However, the variations across the districts and regions continue to be appalling. Given

the pace of improvements in the health sector in the state, the attainment of health-related Sustainable Development Goals is a challenging task. In addition, the unavailability of adequate infrastructure and manpower aggravates the situation. Thus, strengthening the health system of the state is crucial to ensure the health and well-being of the people and achieve the set targets.

XIII

DRINKING WATER AND SANITATION



Introduction

Households having access to improved drinking water facilities in Jharkhand have increased to 77.8 per cent in 2015-16 from 57 per cent in 2005-06. Access to improved sanitation facilities have also increased substantially, i.e. from 15 per cent in 2005-06 to 24 per cent in 2015-16. Moreover, three districts of Jharkhand, i.e. Ramgarh, Lohardaga & Koderma have been declared Open Defecation Free as on December 2017.

Safe drinking water and sanitation facilities have a strong bearing on the health and survival of the people. Unavailability of safe drinking water and basic sanitation facilities result in the incidence of disease and deaths. India shoulders high burden of waterborne and vector-borne diseases and deaths arising due to unavailability of clean drinking water and sanitation facilities. According to the Global Burden of Disease Study (2015), over 1 lakh child-deaths occurred in India due to diarrhoea alone. Infants and children face greater risk in the absence of basic hygienic conditions given their low immunity, particularly in the rural areas and urban slums. Overall, inadequate water and sanitation conditions have severe ramifications on the health and well-being of the family as well as community. Moreover, it is disheartening to note that women and girls in most parts of India spend hours for fetching drinking water and also have to walk far away from habitation to defecate. This drudgery not only entails an unnecessary waste of time but also obstructs other productive work such as going to school or taking up employment. Thus, the two amenities are complementary and in the absence of either, improving health or well-being will be less effective.

The Ministry of Drinking Water and Sanitation (MoDWS), formerly under the Ministry of Rural Development, has been assigned the task of monitoring Programmes of Drinking Water and Sanitation in the country since July 2011. The

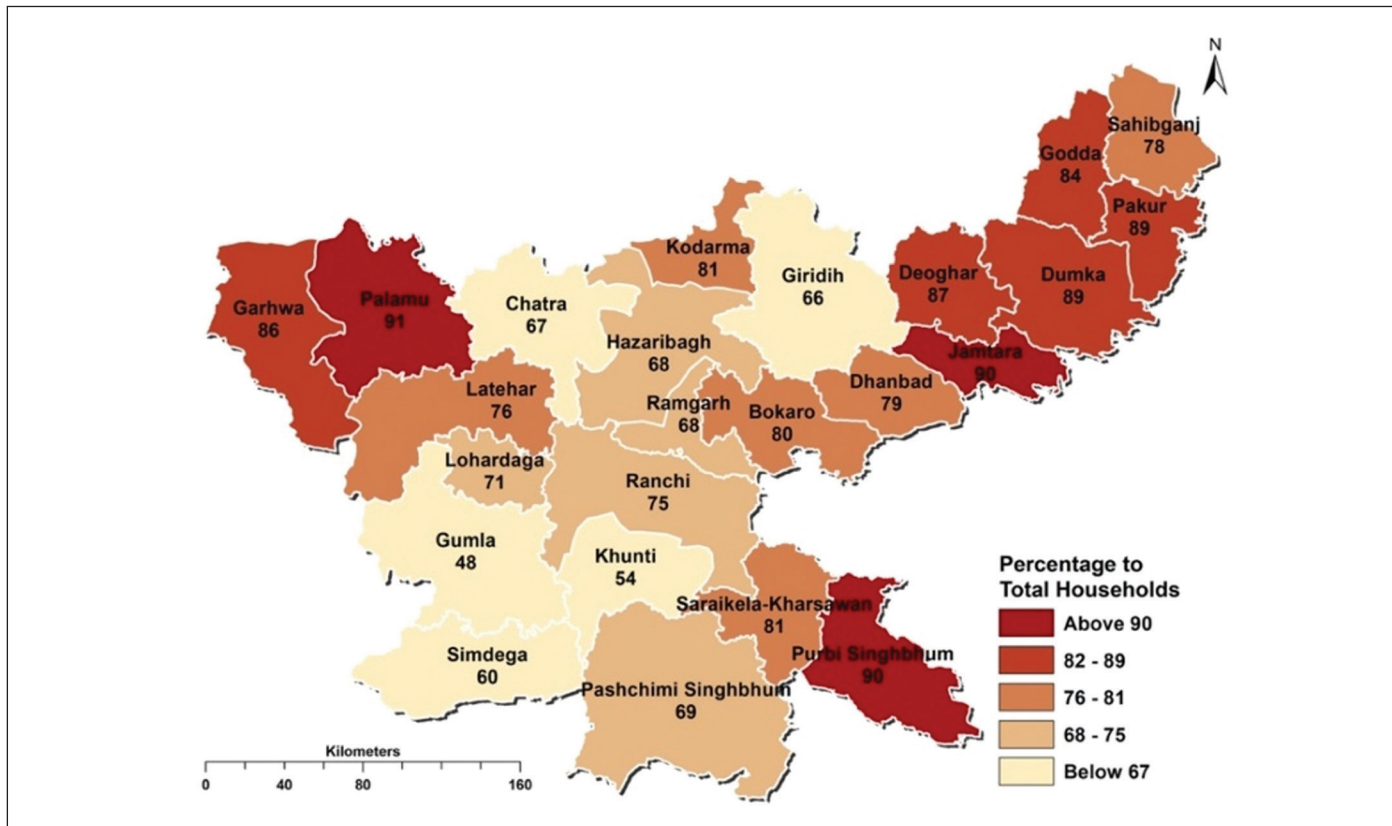
main vision of the Department is the provision of safe and adequate drinking water and access to improved sanitation for all, at all times in rural India. To achieve this goal, it has been running two Flagship schemes: 1) National Rural Drinking Water Programme (NRDWP) for ensuring Rural Drinking Water Supply, and 2) Swachh Bharat Mission (Gramin) and Swachh Bharat Mission (Urban). Overall, it has three programme divisions - Water Supply, Water Quality, and Sanitation. In addition to this, the Department of Urban Development is responsible for managing issues pertaining to Urban Water Supply, Drainage, Solid Waste Management and Sanitation in urban localities of the state. With the Central Government, the MoDWS under the Drinking Water and Sanitation Department (DW&SD) of Jharkhand has laid down its vision that 'Every Household must always be clean, Every Household must use Safe Water.' On account of this, the present chapter discusses the status of drinking water and sanitation in Jharkhand. The chapter is divided into three sections- Water Supply, Water Quality, and Sanitation.

Status of Drinking Water and Sanitation facilities in Jharkhand

Jharkhand has done a satisfactory job as far as ensuring safe drinking water and sanitation facilities are concerned. Households having access to improved drinking water facilities have increased to 77.8 per cent in 2015-16 from 57 per cent in 2005-06 (National Family Health Survey, 2015-16). Access to improved sanitation facilities has also increased substantially, i.e., from 15 per cent in 2005-06 to 24 per cent in 2015-16. However, the progress of the state across the districts indicates stark variations.

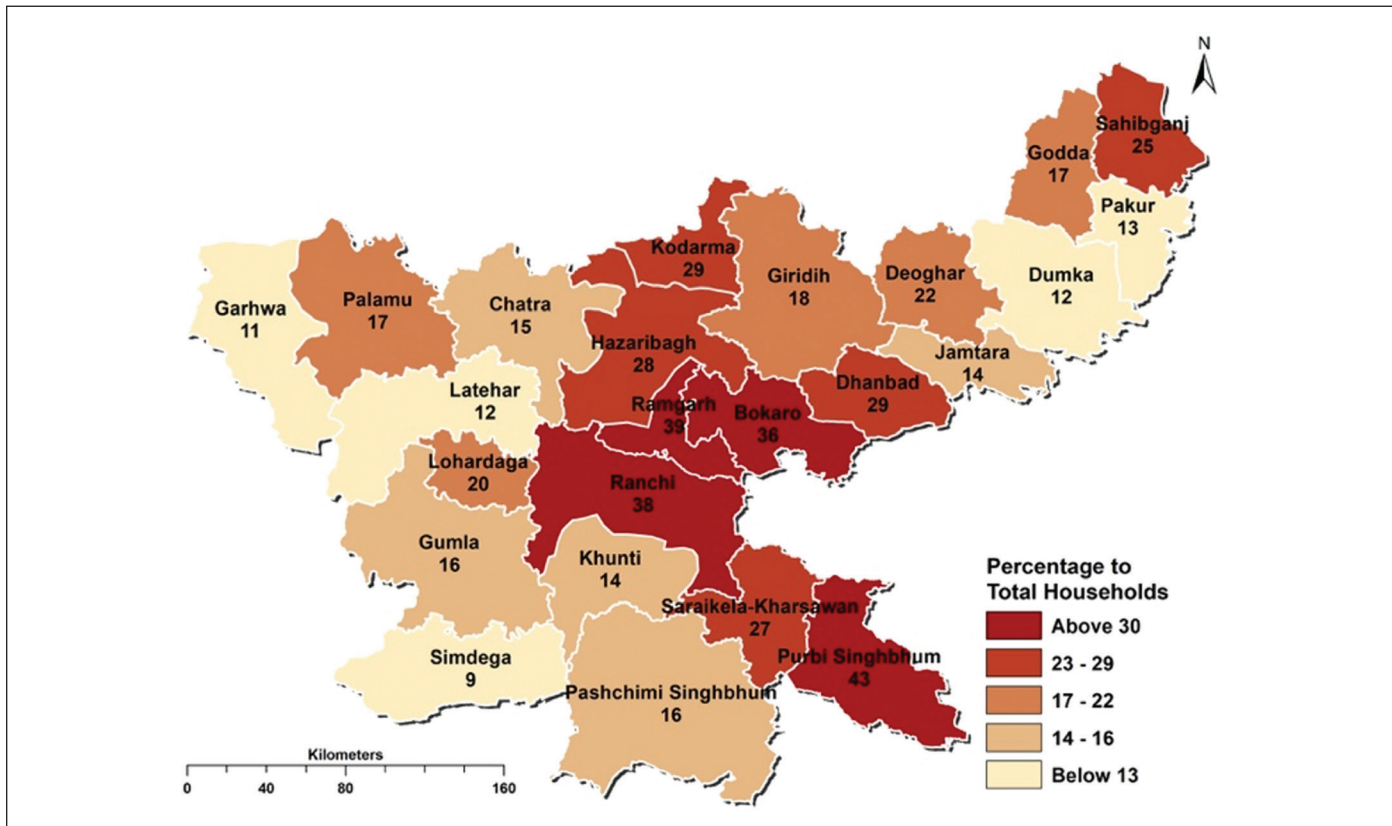
The proportion of households with improved drinking water facilities vary from 91 per cent in Palamu to 48 per cent in Gumla (NFHS, 2015-16). Most of the districts (i.e. 13 districts) have better coverage than the state average of 77.8 per cent. Contrarily, in the case of improved sanitation facilities, the state has fared marginally.

Map 13.1: Proportion of households having access to improved drinking water facility (2015-16) (%)



Source: Compiled using National Family Health Survey, 2015-16

Map 13.2: Proportion of households having access to improved toilet facility (2015-16) (%)



Source: Compiled using National Family Health Survey, 2015-16

The districts with a high proportion of households having improved toilet facilities are Purbi Singhbhum, Ramgarh, Ranchi and Bokaro. These districts are highly urbanised. Alternatively, the districts with lower proportion of households with toilet facilities are Simdega, Garhwa, Latehar, Dumka and Pakur. Notably, these districts are mostly rural areas and predominantly tribal.

The state has also succeeded in achieving the toilet coverage status of 62.89 per cent, although lower than the national average of 71.9 per cent. The undulating topography of the state and presence of high level of Fluoride, Iron and Arsenic contamination in water pose a big challenge to the Government of Jharkhand in ensuring safe drinking water and sanitation facilities to the people. Addressing the pressures of development and industrialization has altered the distribution of water. Lack of access to safe drinking water has also been cited as one of the primary factors responsible for hindering the development in the state. Therefore, it becomes pertinent to assess the progress the state has made in the provisioning of safe drinking water and sanitation facilities in the last financial year i.e. 2017-18.

Status of Rural Drinking Water in Jharkhand

Ensuring adequate water supply refers to the fact that the State should meet the basic water needs which include access to safe supply of water for domestic use, meaning water for drinking, food preparation, and bathing, laundry, dishwashing and cleaning. In many cases, domestic water may also

be used for watering animals and vegetable plots or gardens. However, the definitions of ‘Access’ to (distance to the nearest water point and per capita availability) and safe water quality may vary from one state to the other. The National Rural Drinking Water Programme (NRDWP) has fixed the target of 55 Litres Per Capita Per Day (LPCD) as the basic water need of people in rural areas across the country. Habitations, where Drinking Water Supply systems provide at least 55 LPCD or more, are considered as fully covered habitations. The word ‘sanitation’ means safe management of human excreta.

The state of Jharkhand primarily depends on groundwater extraction to meet its basic water needs. The drinking water supply system primarily depends on the groundwater sources like tubewells, hand pumps, and wells. With the natural water sources almost shrinking in size, making Jharkhand water-sufficient will be an arduous task. Geographically, 70 per cent of Jharkhand is rural, i.e., people engage in agriculture and allied activities. The Ministry through the Village Water and Sanitation Committee (VWSC) and Jal Sahiyas are trying to stress on the need for Water Conservation and its sensitization among villagers. New techniques such as rain water harvesting and groundwater recharging by using solar water pumps are being used now. During the financial year 2016-17, Rural Piped Water Supply Scheme (RPWSS) coverage of Jharkhand was at 20.25 per cent. Of the total, 17.44 per cent was fully covered habitations; while 2.81 was partially covered habitations and quality affected habitations.

Table 13.1: Population Covered by Rural Pipe Water Supply Scheme in Jharkhand

| 2016-17 (as on 01/04/2016) | | | | | | 2017-18 (as on 1/04/2017) | | | | | |
|----------------------------|-------|-------|--------------------------|-------|-------|---------------------------|-------|-------|--------------------------|------|-------|
| Population (Lakhs) | | | Percentage of Population | | | Population (Lakhs) | | | Percentage of Population | | |
| Total | FC | PC+QA | Total | FC | PC+QA | Total | FC | PC+QA | Total | FC | PC+QA |
| 54.47 | 46.92 | 7.55 | 20.25 | 17.44 | 2.81 | 67.86 | 62.43 | 5.43 | 24.89 | 22.9 | 1.99 |

Source: Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, GoI (http://indiawater.gov.in/imisreports/Reports/Profile/rpt_StateProfile_x.aspx?Rep=0) (accessed on 31st December 2017)

The coverage by RPWSS has increased to 24.89 per cent in the current financial year (2017-18), indicating concerted efforts made by the government. The Ministry has fixed the target of achieving 50 per cent piped water supply coverage in rural areas by the end of 2019-20. Therefore, the improvement in the coverage status requires an acceleration to achieve the goal above.

As the economy stabilizes with a robust growth rate of 8.6 per cent, the public expenditure has also increased, clearly indicating positive developments as far as the targets are concerned. The Ministry has spent nearly 1000 crores in laying down mega and mini RDWS schemes. In 2014-15 (December 2014 to March 2015), Rs. 278.21 crore were spent on various projects, which increased to Rs. 793.05 crore in 2015-16. In 2016-17, the Ministry had spent Rs. 1345.66 crore which is more than 95 per cent of

their budget. Despite the fact that a large part of the state is affected by the Naxal and Extremist elements the Ministry has been successful in initiating 694 pipeline projects in these areas. Naxals have not opposed the laying down of pipeline projects, but are still averse to the construction of road and electricity lines in their area. Many new irrigation schemes and check dam construction schemes have been approved by the state. The proposal for the formation of Jharkhand Irrigation Commission is also a landmark decision of the Department. As part of the endeavour to set in motion the implementation of NRDWP guidelines, the Jharkhand state Water and Sanitation Mission has been supporting training workshops for DW&SD engineers, PRIs representatives, and NGOs on building sustainability into the water supply systems.

Table 13.2: Coverage Status of Piped Water Supply (as on December 2017) (%)

| Detail | Percentage coverage in Jharkhand | Percentage coverage in India |
|---|----------------------------------|------------------------------|
| Habitations covered with Piped Water Supply | 12.99 | 41.83 |
| Population covered with Piped Water Supply | 23.13 | 53.38 |
| Household Connections | 4.14 | 16.76 |
| Schemes Managing by Panchayat/ Population | 100 | 72.63 |

Source: Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, GoI (http://indiawater.gov.in/imisreports/Reports/Profile/rpt_StateProfile_x.aspx?Rep=0) (accessed on 31st December 2017)

Table 13.2 shows the coverage status of piped water supply in Jharkhand and India. The coverage of habitations with Piped Water Supply in the state was 13 per cent against the national average of 42 per cent. Table 13.3 provides the coverage status of rural drinking water systems in Jharkhand according to the previous norm of 40 LPCD. Following the NRDWP Guidelines (2013), the drinking water supply norm was raised from 40 LPCD to 55 LPCD.

In accordance with the norm of 55 LPCD to meet the water requirements of human, habitations are categorized into three kinds. Habitations receiving 55 LPCD or more water are considered fully covered, less than 55 LPCD are termed as partially covered and habitations with at least one source of drinking water chemically affected is considered as quality affected.

Table 13.3: Status of Rural Habitation with respect to Drinking Water Supply across districts (as on December 2017) (%)

| Districts | Fully covered Habitations | Partially covered Habitations | Quality affected Habitations |
|---------------------|---------------------------|-------------------------------|------------------------------|
| Bokaro | 96.90 | 0.96 | 2.14 |
| Chatra | 99.73 | 0.00 | 0.27 |
| Deoghar | 98.52 | 0.96 | 0.52 |
| Dhanbad | 97.91 | 0.17 | 1.92 |
| Dumka | 96.35 | 0.17 | 3.48 |
| Purbi Singhbhum | 99.01 | 0.99 | 0.00 |
| Gadhwa | 95.17 | 0.89 | 3.94 |
| Giridih | 97.32 | 2.09 | 0.59 |
| Godda | 98.87 | 0.53 | 0.60 |
| Gumla | 99.85 | 0.00 | 0.15 |
| Hazaribagh | 98.35 | 0.29 | 1.36 |
| Jamtara | 97.13 | 0.00 | 2.87 |
| Khunti | 99.97 | 0.00 | 0.03 |
| Koderma | 99.60 | 0.00 | 0.40 |
| Latehar | 98.68 | 1.21 | 0.11 |
| Lohardaga | 84.05 | 0.00 | 15.95 |
| Pakur | 94.70 | 0.41 | 4.89 |
| Palamu | 98.41 | 1.17 | 0.42 |
| Ramgarh | 93.09 | 0.00 | 6.91 |
| Ranchi | 88.63 | 3.86 | 7.51 |
| Sahibganj | 93.39 | 3.13 | 3.47 |
| Saraikela | 100.00 | 0.00 | 0.00 |
| Simdega | 90.46 | 0.00 | 9.54 |
| Pashchimi Singhbhum | 98.40 | 0.01 | 1.59 |
| Jharkhand | 96.86 | 0.74 | 2.4 |

Source: Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, GoI (http://indiawater.gov.in/imisreports/Reports/Profile/rpt_StateProfile_x.aspx?Rep=0) (accessed on 31st December 2017)

Of the total rural habitations in Jharkhand, 97 per cent households are fully covered, i.e., receive 40 LPCD of water to meet the requirements of humans. Also, 2.4 per cent rural households are quality affected, implying the presence of chemicals in water

for drinking purposes. Only Saraikela has achieved 100 per cent full coverage, while the proportion of partially covered habitations was highest in Ranchi. Lohardaga district of Jharkhand has the highest per centage of quality affected habitations.

Table 13.4: Coverage Status for special category habitations (as on December 2017)

| Particulars | No. of Habitations | Fully covered (%) | Partially covered (%) | Quality affected (%) |
|-----------------|--------------------|-------------------|-----------------------|----------------------|
| Minority | 18012 | 93.42 | 2.08 | 4.51 |
| LWE | 83780 | 96.75 | 0.79 | 2.46 |
| SC Dominated | 11307 | 98.22 | 0.53 | 1.25 |
| ST Dominated | 55533 | 96.25 | 0.59 | 3.16 |
| All Habitations | 120764 | 96.85 | 0.74 | 2.41 |

Source: Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, GoI (http://indiawater.gov.in/imisreports/Reports/Profile/rpt_StateProfile_x.aspx?Rep=0) (accessed on 31st December 2017)

Note: A particular habitation may fall in more than one category or may not in any of the above categories.

Table 13.4 provides the coverage status of habitation across categories. Coverage in all the habitations is above 95 per cent, except among the minorities. The state has initiated 79 pipeline projects to cover the ST population in the current financial year, i.e. 2017-18.

Water Quality

The Water Quality Programme, a sub-division of NRDWP is also funded and guided by the Central Government. It aims at the identification, mitigation and management of Drinking Water Quality related problems in both urban and rural areas. The water testing lab in Ranchi has been certified by the National Accreditation Board for Testing and Calibration Laboratories (NABL). Water testing labs in all the 24 districts have started operating after getting the NABL accreditation. The Fluoride/Arsenic affected districts have received treatment by 4 Mega Rural

Pipeline projects, therefore, benefitting a population of 19,845. Also, 7 Small Rural Pipeline projects are under construction which will be benefitting a population of 1.09 lakh. The high concentration of iron, fluoride and arsenic beyond permissible limits does great harm to the water quality and public health. Apart from Ranchi, the water testing labs in Daltonganj, Jamshedpur, Dhanbad, Hazaribagh and Dumka would also be getting NABL accreditation by 2018. Measures are also being taken to improve the water quality in Garhwa, Palamu, Pakur and Sahibganj. To spread awareness about the hazards of contaminated water, the Ministry is doing a commendable job by adopting the strategy of Information, Education, and Communication (IEC). The World Bank has also been assisting the project for integrated piped water coverage and sanitation services in low-income states like Bihar, Uttar Pradesh and Assam including Jharkhand.

Table 13.5 : Contamination wise details of quality affected habitations (as on December 2017)

| Contaminant | Jharkhand | | | All India |
|--------------|-----------------------|--------------------------------|--------------------|--------------------|
| | Number of Habitations | Rural Population (in Rs. Lakh) | Habitations (in %) | Habitations (in %) |
| Fluoride | 557 | 2.68 | 0.46 | 0.74 |
| Arsenic | 102 | 0.92 | 0.08 | 1.04 |
| Iron | 2243 | 6.61 | 1.86 | 1.38 |
| Salinity | 0 | 0 | 0 | 0.82 |
| Nitrate | 4 | 0.02 | 0 | 0.11 |
| Heavy Metal | 0 | 0 | 0 | 0.14 |
| Total | 2906 | 10.23 | 2.41 | |

Source: Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, GoI (http://indiawater.gov.in/imisreports/Reports/Profile/rpt_StateProfile_x.aspx?Rep=0) (accessed on 31st December, 2017)

The high concentration of Iron, Fluoride and Arsenic in water has an adverse impact on the water quality and public health of people in Jharkhand. In fact,

the presence of iron contamination is well over the all India average and causes various water-borne diseases and deformities.

Table 13.6: Testing of Sources in Habitations (as on December 2017)

| No. of Total Habitations | Habitations where 100% Sources tested in Labs. | Habitations where partial Sources tested in Labs. | Habitations where no Sources Tested in Labs. |
|--------------------------|--|---|--|
| 120764 | 9822 | 40291 | 105121 |

Source: Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, GoI (http://indiawater.gov.in/imisreports/Reports/Profile/rpt_StateProfile_x.aspx?Rep=0) (accessed on 31st December, 2017)

Undoubtedly, Jharkhand has been successful in providing access to basic water supply facilities to a majority of households. But in order to achieve the Sustainable Development Goal-6 of *Har Ghar Jal* by 2030, it needs to actively involve community participation. The Water Security crisis in Jharkhand is rooted in three primary causes: insufficient water per person, poor/contaminated water supply, and dwindling water resources. But despite these challenges, rural piped water supply is consistently increasing in Jharkhand. Administrative competence of the State Government has been prudently matched with the vision of the Government in the Centre, which has helped in the realization of most of the targets on time. A makeshift arrangement in the form of increasing piped water supply coverage or water treatment alone cannot fulfil the water requirements of the state. Instead, means of sustainable groundwater extraction needs to be developed to make Jharkhand a water abundant state in future.

The NRDWP has launched various schemes to supply water to the rural population. As on December 2017, 386965 schemes are operational in the state. These schemes are either based on various sources such as surface-based, ground-based and others, or on types of schemes. Jharkhand is dependent on groundwater as a major source of water, which is depleting rapidly. The government is adopting various measures to preserve the level of groundwater and also initiating artificial recharges to

maintain the water level.

Table 13.7: Schemes of Drinking Water by Sources of water (as on December 2017)

| Types of Schemes * | Numbers |
|---------------------|---------|
| Surface Water-based | 708 |
| Ground Water-based | 385431 |
| Others** | 826 |
| Total | 386965 |

Source: Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, GoI (http://indiawater.gov.in/imisreports/Reports/Profile/rpt_StateProfile_x.aspx?Rep=0) (accessed on 31st December, 2017)

Note: *One scheme may have multiple sources, ** Rain Water, Traditional and Others.

Table 13.8: Types of Schemes (as on December 2017)

| Types of Schemes | Numbers. |
|------------------------------|----------|
| Single Village Schemes (PWS) | 12238 |
| Multi-Village Schemes (PWS) | 401 |
| Tubewell/HP/ Well etc. | 385584 |
| Recharge Structure | 23072 |
| Point Treatment System | 120 |
| Total | 421415 |

Source: Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, GoI

(http://indiawater.gov.in/imisreports/Reports/Profile/rpt_StateProfile_x.aspx?Rep=0) (accessed on 31st December, 2017)

Table 13.9: Coverage of Habitations by Schemes (as on December 2017)

| Particulars | Jharkhand | | India |
|---|-----------------------|------------------------|------------------|
| | Number of Habitations | % of total Habitations | % of Habitations |
| Habitations covered by Piped Water Supply Schemes | 17847 | 14.78 | 42.73 |
| Habitations covered by Hand pumps/ Bore wells | 100301 | 83.06 | 49.53 |
| Habitations covered by Others | 965 | 0.8 | 2.59 |
| Habitations where scheme detail not entered in IMIS | 1651 | 1.37 | 5.14 |
| Total | 120764 | | |

Source: Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, GoI (http://indiawater.gov.in/imisreports/Reports/Profile/rpt_StateProfile_x.aspx?Rep=0) (accessed on 31st December, 2017)

Coverage of habitations in Jharkhand vis-à-vis India indicates the progress the state has made. The State

has covered merely 15 per cent habitations by piped water supply scheme against the national average of

43 per cent. However, the state surpasses the national average in terms of coverage of habitations by hand pumps/borewells. Almost 83 per cent habitation is covered by the hand pumps and borewell schemes.

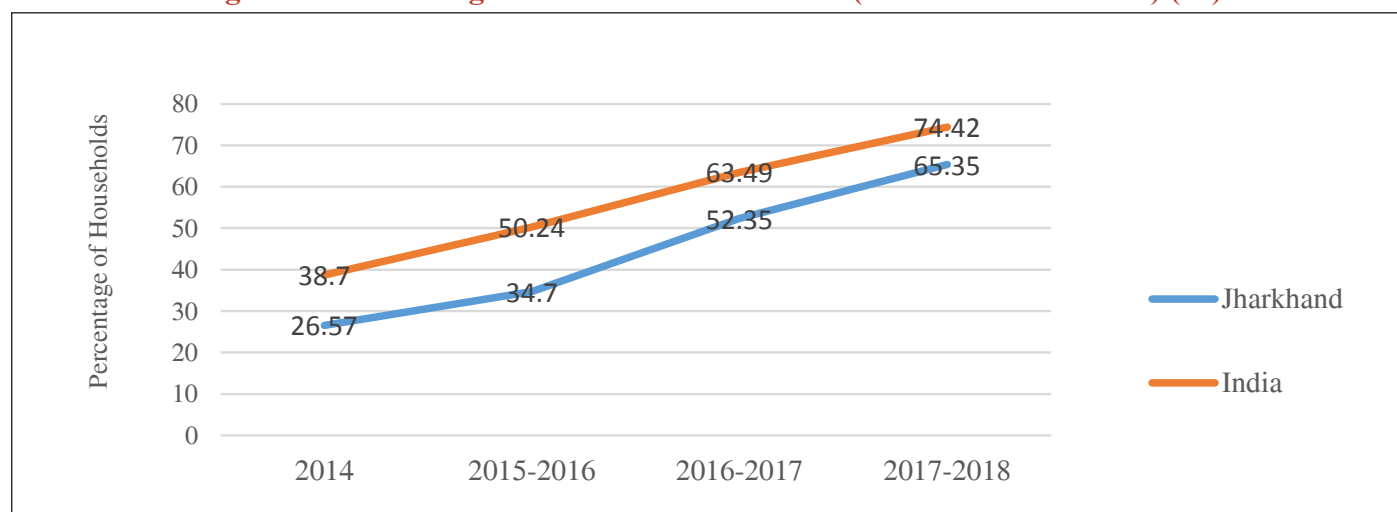
Rural Sanitation- Swachh Bharat Mission (Gramin)

Swachh Bharat mission launched by the Prime Minister Mr. Narendra Modi intended to improve the level of sanitation and cleanliness with a vision to make India a clean country by 2019. The campaign has caught the media attention and has also become the most popular Government campaigns. With slogans like “Farewell to filth, Hello to health” and “Toilet in every home of Jharkhand,” the initiative is doing a lot to bring a qualitative change in the lives of the people. Deficient or poor water and sanitation facilities not only impact the health of the population but also aggravates poverty and misery due to repeated sickness and various infectious diseases. Human waste is a major polluter of rivers and groundwater resources. Therefore, proper and safe management of human excreta not only protects the environment but also helps in ensuring food security. Improved water supply and sanitation will lead to significant and tangible improvements in the standard of living of the poor people. Women and girls will be particularly benefitted, as toilets in

their homes will give them respite from harassment caused due to open defecation.

The Ministry of Drinking Water and Sanitation is the nodal Ministry for the implementation of SBM(G). In rural India, this would mean improving the level of cleanliness through Solid and Liquid waste management activities and making villages Open Defecation Free (ODF), clean and sanitized. With 70 per cent of the state’s population residing in rural areas, this has been a challenging task for the Government. Jharkhand has fared moderately as far as the achievement of ODF status is concerned. However, the state continues to lag behind many other states like Madhya Pradesh, Karnataka, and Rajasthan which have recorded far better toilet coverage. These states are although behind Gujarat, Himachal Pradesh, Chandigarh, and Kerala which have recorded 100 per cent toilet coverage. However, the concern of full toilet coverage is of little significance compared to the durability of service in terms of cleanliness and proper sanitation. For Jharkhand, the toilet coverage has shown a slow and steady improvement from 26.57 per cent in 2014 to 63.35 per cent as on December 2017. Since 2nd October 2014, 1826203 toilets have been built in Jharkhand as on December 2017. In the financial year 2017-18 alone, 611948 toilets were built.

Figure 13.1: Coverage status of rural sanitation (as on December 2017) (%)



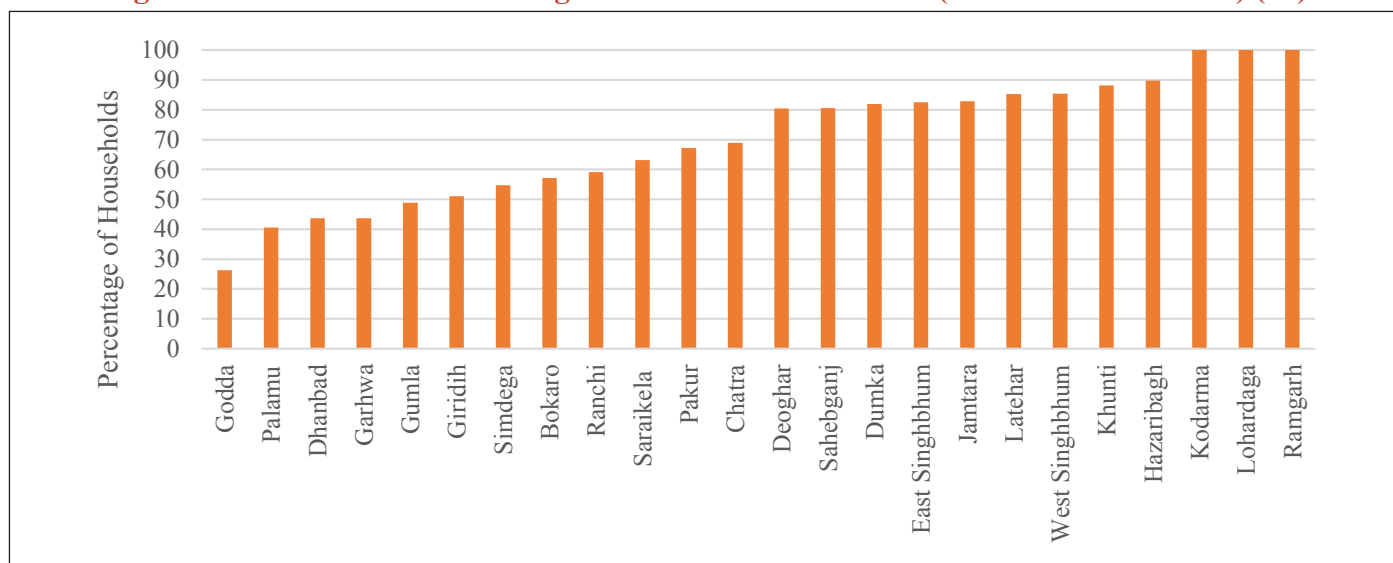
Source: Swachh Bharat Mission (Gramin), Ministry of Drinking Water and Sanitation, Government of India (<http://sbm.gov.in/sbmreport/State.aspx>) (accessed on 31st December, 2017)

Box 13.1: Ramgarh becomes first open defecation free district of Jharkhand

Ramgarh became the first district in Jharkhand to become open defecation free (ODF). The target was achieved with the completion of construction of 77,701 toilets in 2016/17.

Figure 13.2 shows the coverage of rural sanitation in Jharkhand. Three districts of Jharkhand- Ramgarh, Lohardaga, and Koderma have been declared ODF free as on December 2017.

Figure 13.2 : District wise coverage status of rural sanitation (as on December 2017) (%)



Source: Swachh Bharat Mission (Gramin), Ministry of Drinking Water and Sanitation, GoI (<http://sbm.gov.in/sbmreport/State.aspx>) (accessed on 31st December, 2017)

There cannot be a standard blueprint or normal trajectory by which the Government can make Jharkhand ODF by 2019; there are various challenges in its path. To encourage states and districts to improve sanitation and SLWM (Solid and Liquid Waste Management), Ministry of Drinking Water and Sanitation is taking the initiative to rank all districts

in India based on the parameters of performance, sustainability, and transparency. The rankings are announced at the end of each quarter. According to the *Swachhta Darpan*, Ramgarh attained 66th, Lohardaga 169th and Koderma 170th position at the all India level. As mentioned earlier these districts have been declared ODF.

Box 13.2: Jharkhand Urban areas are now ODF

All urban areas of Jharkhand are now ODF. City Development Departments are obliged to upload all necessary data latest by Oct 2nd, 2017. As per the sources the government planned to construct around 209474 toilets across the city. As far 206738 toilets have been constructed.

Table 13.10: National rankings of districts of Jharkhand

| Districts | Rankings | Performance (50%) | Sustainability (25%) | Transparency (25%) | Total Score |
|---------------------|----------|-------------------|----------------------|--------------------|-------------|
| Bokaro | 272 | 17.61 | 7.93 | 16.91 | 42.45 |
| Chatra | 306 | 24.46 | 3.05 | 12.42 | 39.93 |
| Deoghar | 396 | 25.20 | 0.95 | 7.86 | 34.01 |
| Dhanbad | 392 | 16.07 | 5.53 | 12.71 | 34.31 |
| Dumka | 371 | 26.07 | 1.71 | 7.69 | 35.47 |
| Purbi Singhbhum | 276 | 29.95 | 1.77 | 10.61 | 42.33 |
| Garhwa | 391 | 14.25 | 7.44 | 12.78 | 34.48 |
| Giridih | 362 | 18.77 | 5.05 | 12.68 | 36.50 |
| Godda | 539 | 10.09 | 2.85 | 10.18 | 23.12 |
| Gumla | 462 | 17.79 | 3.95 | 7.69 | 29.43 |
| Hazaribagh | 310 | 28.53 | 3.55 | 7.69 | 39.77 |
| Jamtara | 336 | 26.68 | 1.80 | 9.78 | 38.26 |
| Khunti | 342 | 21.42 | 1.80 | 14.45 | 37.67 |
| Koderma | 170 | 40.00 | 7.92 | 8.95 | 56.87 |
| Latehar | 329 | 28.39 | 1.52 | 8.95 | 38.86 |
| Lohardaga | 169 | 40.00 | 6.86 | 10.07 | 56.92 |
| Pakur | 431 | 21.48 | 1.37 | 8.52 | 31.37 |
| Palamu | 496 | 14.35 | 1.98 | 10.63 | 26.96 |
| Ramgarh | 66 | 50.00 | 14.62 | 14.37 | 78.99 |
| Ranchi | 423 | 17.95 | 6.10 | 7.96 | 32.01 |
| Sahibganj | 307 | 27.50 | 3.05 | 9.35 | 39.90 |
| Saraikela | 289 | 24.74 | 7.13 | 9.04 | 40.91 |
| Simdega | 430 | 17.82 | 4.26 | 9.30 | 31.38 |
| Pashchimi Singhbhum | 343 | 27.50 | 1.79 | 8.21 | 37.49 |

Source: Swachh Bharat Mission (Gramin), Ministry of Drinking Water and Sanitation, GoI (<http://sbm.gov.in/SwachhDarpan/SwachhDarpan/Home.aspx>) (accessed on 31st December, 2017)

Table 13.11: Status of Individual Household Latrines coverage

| Components | Annual Objective for year 2016-17 | Achievement for the year 2016-17 (Upto 31.1. 2017) | Achievement against Objectives 2016-17 (%) | Expected Achievement as on 31.3.2017 |
|----------------------------|-----------------------------------|--|--|--------------------------------------|
| IHHL-APLs | 452992 | 441958 | 97.56 | 658069 |
| IHHL-BPLs | 193543 | 147340 | 76.11 | 241981 |
| IHHL-Total | 646535 | 589298 | 91.14 | 900050 |
| Community Sanitary Complex | 52 | 13 | 25 | - |

Source: Annual Implementation Plan, Swachh Bharat Mission (Gramin), Ministry of Drinking Water and Sanitation, GoI

In rural areas, the Government is promoting Twin Leach Pit model of Individual Household Latrines (IHHL). Through the Swachh Bharat Mission (G), an incentive of Rs. 12000 is being provided to

individual beneficiaries. A good twin leach toilet with pucca superstructure can be built in Rs. 10000-12000 per toilet. Beneficiaries are free to spend more if they wish to attach some other features to the

IHHL. These are basic low-cost toilets provided to Below Poverty Line (BPL) households and certain categories of Above Poverty Line (APL) households such as Scheduled Castes/Scheduled Tribes, small and marginal farmers, landless labourers, physically handicapped and women-headed households. Expenditure on IHHL accounts for Rs. 12000, which is the largest share of the total expenditure on the Sanitation front. Most of the expenditure takes place in the third quarter of the financial year.

ODF Verification Process adopted in Jharkhand

ODF status adopted by the Ministry is in line with the SBM(G) directives and has been approved by the state cabinet. The state Government has planned to undertake Water, Sanitation and Hygiene (WASH) Validation exercise in selected Gram Panchayats of Jharkhand which will include toilet coverage, usage and developing key hygiene practices like Hand washing with soap and safe child excreta disposal. ODF verification process for validating ODF declaration status and sustainability of SBM(G) which is based upon directives of Ministry of Drinking Water & Sanitation, has been finalized and also approved by the state cabinet. In line with the need to have a regular state validation system for WASH, Department of Drinking Water & Sanitation has planned to undertake a WASH validation exercise in selected GPs of Jharkhand. The main goal of the assignment is to validate the ODF status of Gram Panchayats, including toilet coverage and usage, inclusive of the prevailing practices or behaviours on key hygiene practices like hand washing with soap and safe disposal of child excreta etc.

Key objectives of the verification are: -

1. To determine access and functionality of individual household latrines (IHHL) in Selected ODF GPs

- Access to individual household latrines (IHHL) across different social groups
 - Usage of IHHL across different social groups
 - Safe disposal of child faeces
2. To determine availability and functionality of toilets and hand washing facilities for school and anganwadis in Selected ODF GPs of Jharkhand
 - Availability of separate toilets in schools and anganwadis
 - Functionality of toilets in schools and anganwadis
 - Level of cleanliness of toilets
 - Availability of hand washing facilities/ dedicated sites in schools and anganwadis
 - Availability of soap for hand washing in schools and anganwadis

Key academic institutions have been engaged in ODF verification. The State has derived Institution wise specific roles and responsibilities and engagements in the process of ODF verification. UNICEF, Jharkhand is providing technical assistance to the Department of Drinking Water & Sanitation, SBM(G) in ODF verification process. The state has also been publishing documents on findings of state ODF Verification which includes present data and analysis of the key WASH indicators, primarily in graphical and tabular forms in an easy to understand manner. The third party and independent verification will be done by selection of agencies.

Urban Sanitation: Swachh Bharat Mission (Urban)

Swachh Bharat Mission (Urban) is overseen by the Ministry of Urban Development and is mandated to provide sanitation and household toilet facilities in all 4041 statutory towns with a combined population of 377 million. The estimated cost is Rs. 62,009

crore over five years with the Centre stated to assist with Rs. 14,623 crore. The Mission aims to cover 1.04 crore households, provide 2.5 lakh community toilet seats, 2.6 lakh public toilet seats and set up in all towns solid waste management facilities. At the core of this mission lie six components.

1. Individual household toilets;
2. Community toilets;
3. Public toilets;
4. Municipal Solid Waste Management;
5. Information and Educating Communication (IEC) and Public Awareness;
6. Capacity Building

Box 13.3: Four Jharkhand cities among 100 cleanest in the country

Jharkhand on Thursday emerged as one of the top performers in cleanliness. As per the Swachh Sarvekshan 2017, the annual ranking of the cities being done by the Centre since 2014. Four of the cities of Jharkhand attained the position among the top 100 cleanest cities of country. Chas of Bokaro district ranked 41 out of 434 cities surveyed. Chas was also announced as the cleanest among towns in Eastern India which have a population under two lakhs. While Jamshedpur was announced as the cleanest among towns in Eastern India which have a population of 10 lakhs. Nine cities of Jharkhand participated in the Survey. The Temple Town of Deoghar stood at 102nd position while Dhanbad bagged the 109th position, Mango urban local body in Purbi Singhbhum was ranked 131st while Adityapur in Seraikela Kharsawan district was ranked 97.

Table 13.12 shows the status of Swachh Bharat Mission (Urban) in Jharkhand and India. Jharkhand has achieved construction of 209616 individual toilets and 3089 community and public toilets. Totally, 22 districts of Jharkhand have been declared ODF; of these 3 districts have been certified as ODF.

**Table 13.12: Status of Urban Sanitation
(as on December 2017)**

| Structures | Jharkhand | India |
|------------------------------------|-----------|---------|
| Individual Toilets | 209616 | 4084620 |
| Community & Public Toilets | 3089 | 234161 |
| Number of ODF Cities | 22 | 1,381 |
| 100% Door to Door Waste Collection | 404 | 51734 |

*Source: Swachh Bharat Mission (Urban), Ministry of Drinking Water and Sanitation, GoI
(<http://www.swachhbharaturban.in/sbm/home/#/SBM>)
(accessed on 31st December, 2017)*

The SBM(U) mission seeks to eliminate open defecation; convert insanitary toilets to flush

toilets; eradicate manual scavenging, and facilitate solid waste management. This mission lays special emphasis on bringing about a behavioural change relating to healthy sanitation practices by educating people about the environment and strengthening them to design, execute and operate systems for fostering an enabling environment for private sector participation in the capital and operational expenditure.

Conclusion

Jharkhand has made substantial improvements in the provisioning of safe drinking water and sanitation facilities. The coverage of piped drinking water facility has witnessed a considerable improvement. Likewise, coverage of rural sanitation has been quite impressive with three districts of the state being declared as ODF. However, it continues to depict a poor performance in the rural areas. The number of villages which have achieved the ODF status is dismal. Therefore, stringent efforts need to be made by the Government in order to achieve full ODF status by 2019.

XIV

**WOMEN, CHILD
DEVELOPMENT &
SOCIAL SECURITY**



In Jharkhand, the Department of Women, Child Development & Social Security were a part of Welfare Department and became an independent department in 2002 to improve the health and nutritional status of the target groups; empower the women socially and financially; provide protection and support to the disabled, elderly, women, and children in difficult circumstances. Various schemes related to education, health and nutrition and social security have been implemented by the Department for the welfare of the concerned people.

The Department of Women, Child Development & Social Security is concerned with the socio-economic empowerment of women, their health during pregnancy/lactation; eradication of anti-women social practices like dowry, child marriage etc.; health of the children of 0-6 age group, their pre-school education; health of adolescent girls; children in conflict with law; visually and hearing impaired and mute/spastic/intellectually disabled children; orphan/shelter-less/street children; persons with special needs in general; the elderly, the beggars; and the victims of immoral trafficking/witch branding. Previously all these activities were handled by the Department of Welfare which was also concerned with the welfare of tribal, scheduled caste people, other backward classes and the minority community. The Department of Women, Child Development & Social Security is now a very important department with a large budget.

Status of Women and Children in Jharkhand

According to the Census 2011, females constitute almost 50 per cent of the population in Jharkhand across all age groups. Jharkhand has a sex-ratio of 948 females per 1000 males, higher than the national average of 943 and female literacy rate of 66.4 per cent against the national average of 65.46 (Census, 2011). Likewise, the overall female work participation rate in the state was 35.68 per cent in 2011 against the national average of 31.11 per cent (Census, 2011). The female literacy rate in Jharkhand was 60 per cent which was 7 points below

the national average in 2014 (NSSO, 2014). The state of children in Jharkhand is equally disquieting compared to the other states. Jharkhand, being one of the Empowered Action Group (EAG) states, has poor health outcomes and utilization rates. The under-five and infant mortality rates, indicating the situation of children, although fare marginally well against the national figures, their performance is questionable compared to its Non-EAG counterparts. The tribal continue to live in appalling conditions with poor amenities and opportunities. Unfortunately, the women from these communities face a greater disadvantage compared to men.

In general, due to their vulnerability and inadequate access to resources, women lag behind men in various spheres. For instance, the social indicators like health, education, employment, etc. are few of the areas where women have performed pitifully. The nutritional status of women vis-à-vis men measured by Body Mass Index (BMI) reveals the discrimination women face in receiving adequate nutritional intake. According to the recent figures of National Family Health Survey (NFHS), 2015-16, almost 32 per cent women in Jharkhand had a BMI below 18.5 kg/m², compared to 10 per cent men with a BMI less than 18.5 kg/m². In addition to this, 65 per cent women were anaemic compared to 30 per cent men. These figures indicate the levels of discrimination women face in the state owing to various factors. Therefore, due to their vulnerability and inadequate access to resources, women and children require particular attention. The government undertakes the responsibility of providing special care to women and children by implementing various schemes in various areas.

Schemes Implemented for Welfare of Women and Children in Jharkhand

In Table 14.1 we provide a list of schemes operational in Jharkhand. These Schemes are implemented either by the centre or the state and are fully or partially sponsored by the Centre. The schemes implemented are targeted

towards the empowerment and protection of women, children and tribal communities. The following sections

provide the list of schemes implemented by the centre or state along with their share in funding.

Table 14.1: List of Centre sponsored schemes operational in Jharkhand (2017)

| Sl. No. | Name of the Schemes | Centre Share |
|------------------------|-------------------------------------|--------------|
| Women's Welfare | | |
| 1 | Women Helpline Scheme | 100 |
| 2 | Beti Bachao Beti Padhao | 100 |
| 3 | One Stop Centre Scheme | 100 |
| 4 | Rajiv Gandhi National Creche Scheme | 100 |

Source: Planning-cum-Finance Department (Planning Division), Government of Jharkhand

Table 14.2: List of Centre-State sponsored schemes operational in Jharkhand (2017)

| Sl. No. | Name of the Schemes | Centre-State Share |
|---------------------------|---|--------------------|
| Child Welfare | | |
| 1 | Integrated Child Development Scheme (ICDS) Establishment | 60:40 |
| 2 | Medicine Kits | 60:40 |
| 3 | Pre-School Kits | 60:40 |
| 4 | Information, Education and Communication | 60:40 |
| 5 | Uniform to AWW/AWH | 60:40 |
| 6 | World Bank Assisted ICDS Project (ISSNIP) | 88:12 |
| 7 | Training Program (STRAP) | 60:40 |
| 8 | ICDS Strengthening and Restructuring | 60:40 |
| 9 | Construction/Maintenance/Upgradation of AWCs under ICDS | 60:40 |
| 10 | Integrated Child Protection Scheme (ICPS) | 60:40 |
| 11 | Indira Gandhi Matritva Sahyog Yojana | 60:40 |
| 12 | Swadhar Greh Scheme | 60:40 |
| 13 | State Resource Centre for Women | 60:40 |
| Adolescent Welfare | | |
| 14 | Kishori Shakti Yojana | 60:40 |
| 15 | Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)-SABLA (Non-Nutrition Program) | 60:40 |
| 16 | Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)- SABLA (Supplementary Nutrition Program) | 50:50 |
| 17 | SNP for Pregnant and Lactating Women and Children | 50:50 |
| 18 | Village Convergence and facilitation Service | 60:40 |
| 19 | Ujjawala | 60:30:10 |

Source: Planning-cum-Finance Department (Planning Division), Government of Jharkhand

Table 14.3: List of State-sponsored schemes operational in Jharkhand (2017)

| Sl No. | Name of the Schemes | State Share |
|--|---|-------------|
| Child Welfare | | |
| 1 | State Nutrition Mission | 100 |
| 2 | Mukhyamantri Laxmi Ladli Yojna | 100 |
| 3 | Strengthening of AWC | 100 |
| Women's Welfare | | |
| 4 | Mukhyamantri Kanyadan Yojna | 100 |
| 5 | Eradication of the practice of Witch Hunting | 100 |
| 6 | Additional honorarium to Anganwadi Workers/ Helpers | 100 |
| 7 | Suraksha BeemaYojana for AWW/AWH | 100 |
| 8 | Jiwan Jyoti Beema Yojana for AWW/AWH | 100 |
| Welfare of Handicapped | | |
| 9 | Welfare of Disabled | 100 |
| 10 | Scholarship to Handicapped | 100 |
| 11 | Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana | 100 |
| Construction and Renovation Schemes | | |
| 12 | Construction of schools/rehabilitation centre/Hostels/ Homes etc. | 100 |
| 13 | Renovation & supply of material to schools/ rehabilitation centre/Hostels/ Homes etc. | 100 |
| Institutional Schemes | | |
| 14 | State Women Commission | 100 |
| 15 | Establishment of the Office of the Disability Commissioner | 100 |
| 16 | State Social Welfare Advisory Board | 100 |
| 17 | Establishment of the office Jharkhand State Child Rights Protection Commission | 100 |
| Miscellaneous Schemes | | |
| 18 | Operation of schools/rehabilitation centre/Hostels/ Homes etc. | 100 |
| 19 | Establishment of Real-Time Monitoring Cell | 100 |
| 20 | Different Training Programmes for Departmental Staff and Officers | 100 |
| 21 | Exhibition, Seminar, Conference, Awards & Enactment of different Acts. | 100 |
| Externally Aided Projects | | |
| 22 | World Bank assisted Tejaswini (EAP) | 30:70 |

Source: Planning-cum-Finance Department (Planning Division), Government of Jharkhand

In total, there are 45 women and child related welfare schemes operating in Jharkhand, sponsored either by the centre or state or centre-state sharing. However, the diversity of schemes operational in the state is not reflected on the status of women and children in Jharkhand. The recently published statistics by the National Bureau of Crime Records (NBCR), 2016, reported that the overall crime against women in Jharkhand had witnessed a

minimal decline from 6568 in 2015 to 5453 in 2016. On the other hand, the crime against children and elderly have increased. Crimes against children have increased to 140 in 2016 from 124 in 2015. While, in the case of elderly, it has increased from 6 cases in 2015 to 56 in 2016 (NBCR, 2016). Also, registered crimes against the Scheduled Tribes have shown an increase, i.e., from 266 in 2015 to 280 in 2016.

One of the most heinous crimes against women prevalent in few pockets of India is deaths related to witch-hunting. Branding women as witches or ‘*Dayan*,’ they are lynched, raped, tortured, burned or murdered with the intention to ensure the safety of the people in the society. The states where witch-hunting crimes are rampant are Jharkhand, Bihar, Haryana, West Bengal, Madhya Pradesh, Maharashtra, Gujarat, Orissa, Chhattisgarh, Assam, Rajasthan and Uttar Pradesh, with a majority of victims being women. Witch-hunting related deaths are common in tribal-dominated and rural areas because of blind faith and superstitious beliefs in people. Jharkhand topped among the other states with 27 women lynched after being branded as ‘witches’ as per NBCR, 2016, followed by Odisha, Madhya Pradesh, and Chhattisgarh. The Jharkhand Police Records data show that 98 witch-hunting deaths and 1857 incidents of witch-hunt have occurred from 2014 to 2016 in the state. There was no national legislation against protection or prevention of witch-hunting in India until the Prevention of Witch-hunting Act, 2016. Before this, Jharkhand followed the Anti-Witchcraft Act, established in 2001. Despite these efforts, witch-hunting continues with impunity in Jharkhand. The government of Jharkhand is seriously working toward prohibiting and eradicating this practice of superstitious belief for which a conscious effort to educate the rural/tribal people through media and social network is enforced.

Violence against children and adolescent girls is another major concern of the state. The figures reporting violence against children and adolescent in the form of human trafficking, child labour, child abuse, child abduction, etc. are disquieting. Human trafficking of boys and girls, mainly adolescent or minor girls is rampant in Jharkhand, making the state India’s trafficking hub. Jharkhand topped in human trafficking incidents reported by the NBCR followed by West Bengal (NBCR, 2016). Children are abducted and sold to placement agencies in the metro/smart cities mainly Delhi and are either

forced to take up menial jobs or domestic help or work in factories at low wage. Female and minor children are also forced into flesh trade. Placement agencies lure children and most often their parents or relatives on the pretext of better jobs and employment. Adding to their dismay, most often middlemen who indulge in human trafficking are tribal. In 2016, the total number of missing children was reported to be 479, out of which 260 were female and 219 were males (NCRB, 2016). Of the total missing children, only 354 children could be recovered. Jharkhand being one of the states with low development and substantial tribal population encourages migration of women and minor girls for better prospects through unregulated placement agencies, thereby falling into the trap of human trafficking.

Although these numbers reveal the violence women face, it does not unfold the complete story, as there are many unreported cases of violence against women and children. The figures are also indicative of the government’s dismal performance in ensuring the welfare of women and children in the state. Hence, it becomes pertinent to review the existing policies framed for the protection of the women and children in Jharkhand.

Status of the Schemes operational in Jharkhand – Women, Children and Disabled

Women in Jharkhand continue to live in extreme deprivation and discrimination. Evident from the recent estimates reported by the NFHS 4, a significant proportion of women continue to suffer from anaemia compared to men. Moreover, the nutritional status indicated by BMI reveals a similar plight of women, i.e., more women are undernourished compared to men in Jharkhand. Therefore, efforts made by the union and state governments in ensuring quality life are indispensable. Despite the diversity of schemes operating in the state for the welfare and protection of women and children, the human development indicators show a dismal picture. A high undernutrition, drop-out, crime, human trafficking,

etc., is observed among women and children in Jharkhand.

The following section discusses the schemes implemented by the union and state governments. The schemes implemented by the Centre are either sponsored partially or fully. The state government schemes are either fully funded or through external aid received from international organisations, known as Externally Aided Projects (EAP).

a. Schemes implemented by Centre and state for Women's welfare

In this section, major schemes launched by the Centre and state government for the welfare of women are assessed.

1. Women Helpline Scheme (10921):

Under this centrally sponsored scheme implemented across the states/UTs of India, immediate and 24-hour emergency response is provided to women affected by violence. It includes rescue information, first point contact counselling and referral services to any woman in distress across the country. The Xavier Institute of Social Service (XISS), Ranchi is the nodal agency for Women Helpline in Jharkhand.

2. One Stop Centre Scheme

One Stop Centre Scheme, popularly known as 'Sakhi' was implemented by the Central government to provide integrated support and assistance under one roof to women affected by violence. Under this scheme, assistance in a range of services including medical, legal, and psychological is provided to women. The first phase centre was set up in Ranchi in the financial year 2016-17. Two new centres in Jamshedpur and Dhanbad have been started in the current financial year, 2017-18.

3. Rajiv Gandhi National Crèche Scheme

Until the last financial year, 2016-17, this scheme was operated by the Government of India through an autonomous body, Central Social Welfare Board, and an

NGO, Indian Council for Child Welfare. Since January 1st, 2017, the scheme will be operated by the state government. The scheme intends to cover all the blocks with at least one crèche in each of them.

4. Pradhan Mantri Matru Vandana Yojana/Indira Gandhi Matritva Sahyog Yojana

Erstwhile Indira Gandhi Matritva Sahyog Yojana, this centrally sponsored maternity benefit scheme was renamed as Pradhan Mantri Matru Vandana Yojana in 2017. This is a Conditional Cash Transfer Scheme in which pregnant and lactating mothers get Rs 6,000 for the first live birth. This Scheme is operational in all districts of Jharkhand from 2017-18.

5. Swadhar Greh Scheme

The two Schemes implemented by the union government, Swadhar and Short Stay Homes, was merged into a new Scheme, Swadhar Greh. The scheme is implemented by the state Government/UT administration as a sub-scheme of the centrally sponsored umbrella scheme, Protection and Empowerment of Women. The Scheme was implemented to provide shelter, food, clothing, counselling, training, and clinical and legal aid to rehabilitate women in distress and provide temporary accommodation, maintenance, and rehabilitative services to discomfited women and girls.

6. State Resource Centre for Women

This Scheme aims at providing holistic empowerment to women. It focuses on their physical, mental, social, economic and political development. This scheme is sponsored by the centre and state in the ratio of 60:40.

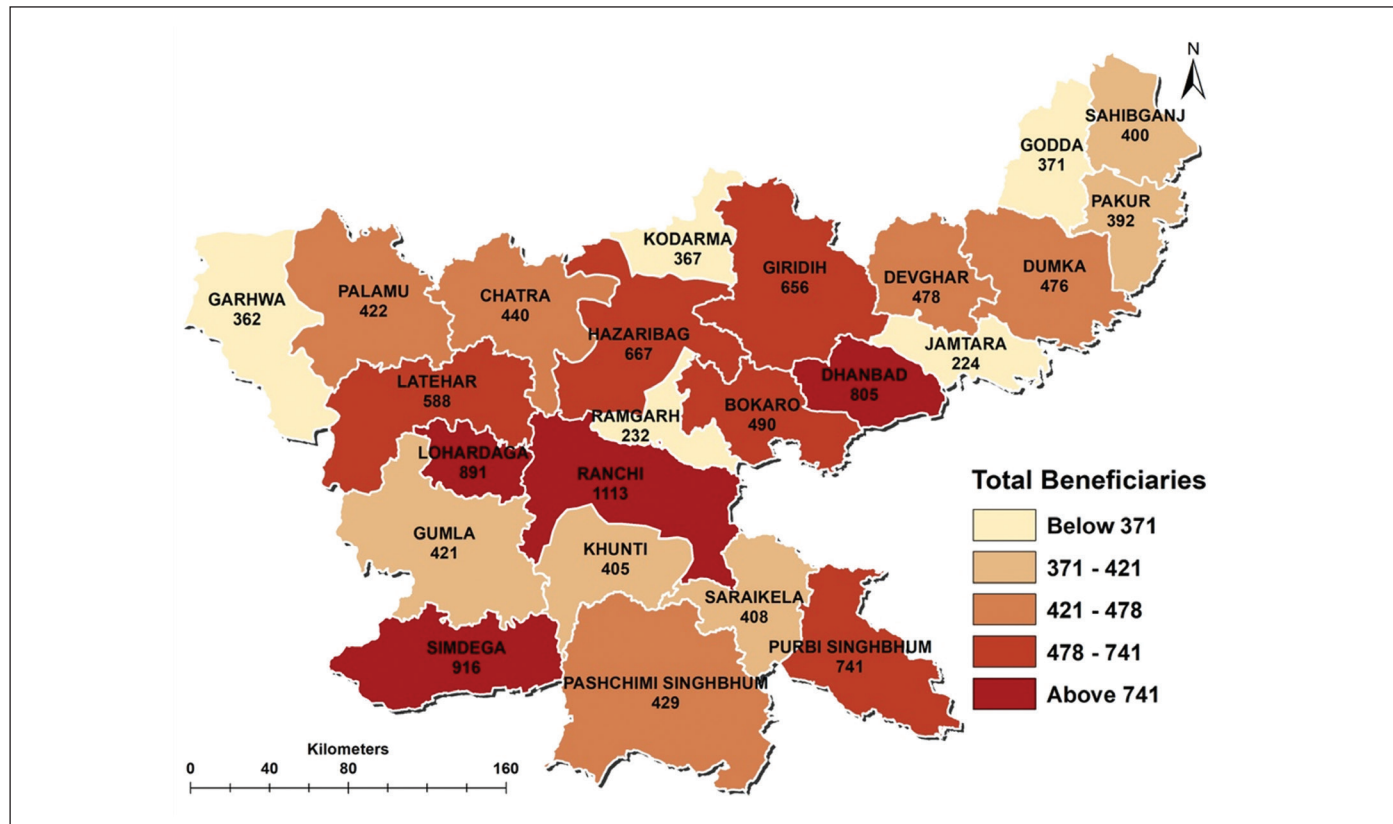
7. Mukhyamantri Kanyadan Yojna (MKY)

This is a state-sponsored scheme executed by the Department of Women and Child and Social Security. Under this scheme, newly married women having her family annual income below Rs. 72,000/- are given financial assistance of Rs. 30,000/- on the occasion of

their marriage. Table 14.4 shows the list of beneficiaries of MKY across districts of Jharkhand. The number of beneficiaries has registered a slight increase since the last financial year. The total number of beneficiaries in the

state under the scheme was 12694 as on December 2017. Ranchi has the highest number of beneficiaries followed by Simdega. The district that has the lowest number of beneficiaries is Jamtara.

Map 14.1: Total number of beneficiaries of Mukhyamantri Kanyadan Yojna (as on December 2017)



Source: Compiled using data from Department of Women, Child Development & Social Security, Government of Jharkhand

8. Eradication of the practice of Witch Hunting

History of humankind gives an account of how many superstitions have prevailed and caused misery to human beings in the past. Violence against women accused of practicing witchcraft is widespread in the rural areas of Jharkhand, mainly dominated by the tribal. Witch hunting cases are significantly fewer in areas with a good government network of primary healthcare centres. In villages, an ‘ojha’ or a quack doctor diagnoses an illness as the curse of a ‘witch’, which results in a humiliating and violative hunt thereafter. Unfortunately, there is no specific law in India to protect people from witch hunting; the rate of conviction in cases of crime against alleged *Dayans* is low (26.9 per cent). The villagers believe that the women branded as ‘witch’ are responsible for the

illness, death, drought, and desire that is overwhelming the lives of the communities’ women. To bring awareness about the evils of witch hunting, the Department of women, child development and social security, conducts various awareness increasing schemes through seminars and workshops. The department also promotes awareness by means of television, newspapers, circulars, etc.

9. Additional honorarium to Anganwadi Workers/ Anganwadi Helpers

The state government has decided to give an additional honorarium to the Anganwadi Workers/ Anganwadi Helpers. In the 35881 Anganwadis in the 224 ICDS running in Jharkhand, the honorarium received by the Anganwadi Workers and Anganwadi Helpers is Rs.

1400 and Rs. 700 respectively. While in the 2551 Mini Anganwadis, the honorarium received by the Anganwadi Workers is Rs. 700.

10. Suraksha Bima Yojana for Anganwadi Workers (AWW)/ Anganwadi Helpers (AWH)

The department provides social insurance to all AWW/AWH by linking the AWW/AWH with Prime Minister Suraksha Bima Yojana scheme under the union government and the contribution of the beneficiary is sponsored by the state government. Under this scheme, Rs. 2.00 Lakh accident cum disability cover (Rs. 1.00 Lakh for partial permanent disability) is provided to the AWW/AWH.

11. Jiwan Jyoti Bima Yojana for Anganwadi Workers/Anganwadi Helpers

The department has also launched Jeevan Jyoti Bima Yojna for all AWW/AWH. Under this scheme, AWW/AWH in the age group of 18-50 years, are linked with the Pradhan Mantri Jeevan Jyoti Bima Yojna of Government of India and the contribution of the beneficiary is sponsored by the state government. The scheme offers Rs. 2.00 Lakh life cover to the AWW/AWH.

12. Ujjawala Scheme

Under the Mission for protection and Empowerment of Women, Ujjawala scheme was directly implemented by the union government through NGOs. From the financial year 2017-18 onwards, the scheme is implemented in the intervention of the state Government in funding pattern of 60:30:10 (Centre, state and Implement agency). Presently, the scheme is being implemented in Pakur district of Jharkhand.

13. Tejaswini Yojana

Tejaswini Scheme is a World Bank funded or Externally Aided Project for adolescent girls and women. The scheme intended to provide socio-economic empowerment to adolescent girls and women in Jharkhand. The WB covers

70 per cent of the project cost in the form of soft loans, while the remaining is sponsored by the state. The project is implemented across 17 districts of Jharkhand viz. Ramgarh, Chatra, Koderma, Bokaro, Dhanbad, Deoghar, Dumka, Godda, Pakur, Jamtara, Palamu, Latehar, Lohardaga, Khunti, Simdega, Saraikela-Kharsawan and Purbi Singhbhum. There are three main components of the project, (i) Expanding social, educational and economic opportunities, (ii) Intensive service delivery, and (iii) State capacity-building and implementing support.

b. Schemes implemented by Centre and State for Children's welfare

In the following section, we detail the status of various union and state government schemes in Jharkhand implemented for the development of children.

1. Beti Bachao Beti Padhao (BBBP)

With the objective to improve the declining Child Sex Ratio and ensure girls education towards ensuring gender equality, a centrally sponsored scheme was launched across 100 gender-critical districts, where the child sex ratio was very low. In Jharkhand, the scheme was implemented in Dhanbad district, which recorded the lowest child sex ratio (0-6 years) of 916 against the state average of 948.

2. Integrated Child Development Services (ICDS)

ICDS was launched in Jharkhand in 1975 to provide early childhood care and development. Presently, 224 Child Development Programmes and 20 District Social Welfare Officers are posted across 24 districts of the state. The total number of Anganwadi kendras in Jharkhand is 38432. Each Anganwadi Kendra has one Sevika. The state has 38432 Sevikas and 35881 Sahiyakas as on December 2017. The union and state government allocate funds in the ratio of 60:40 to operate the ICDS and its various components.

Table 14.4: Total number of ICDS projects and Anganawadi Kendras (as on December 2017)

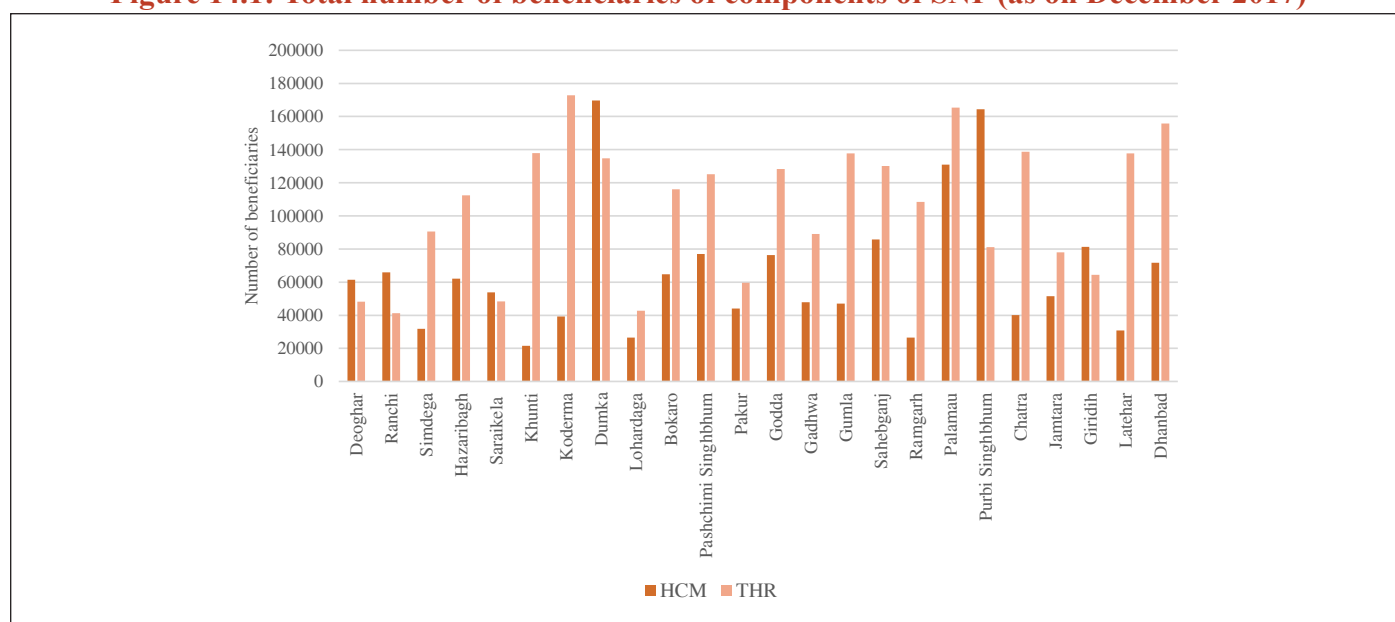
| Districts | Total Number of ICDS Projects | Total Number of Anganawadi Kendras | Districts | Total Number of ICDS Projects | Total Number of Anganawadi Kendras |
|------------------|-------------------------------|------------------------------------|---------------------|-------------------------------|------------------------------------|
| Bokaro | 11 | 2256 | Koderma | 5 | 751 |
| Chatra | 6 | 1124 | Latehar | 7 | 962 |
| Deogarh | 10 | 1567 | Lohardaga | 5 | 749 |
| Dhanbad | 8 | 2231 | Pakur | 6 | 1167 |
| Dumka | 10 | 2060 | Palamu | 14 | 2595 |
| Purbi Singhbhum | 11 | 1722 | Ramgarh | 6 | 1042 |
| Garhwa | 9 | 1330 | Ranchi | 16 | 2832 |
| Giridih | 14 | 2431 | Sahibganj | 9 | 1688 |
| Godda | 9 | 1791 | Saraikela | 9 | 1370 |
| Gumla | 11 | 1670 | Simdega | 7 | 965 |
| Hazaribagh Rural | 13 | 1770 | Pashchimi Singhbhum | 16 | 2330 |
| Jamtara | 6 | 1189 | Jharkhand | 224 | 38432 |
| Khunti | 6 | 840 | | | |

Source: Department of Women, Child Development & Social Security, Government of Jharkhand

In total, there are 224 ICDS projects operational in the state in 35881 Anganwadi Centres (AWC) and 2551 mini AWCs. Totally, 38432 Anganwadi kendras across 24 districts are operational in Jharkhand. The ICDS provides six services- (i) supplementary nutrition, (ii) immunization, (iii) health check-up, (iv) referral services, (v) pre-school non-formal education, and (vi) nutrition & health education. The Supplementary

Nutrition Programme (SNP) has two main components- Morning Snack (MS), and Hot Cooked Meal (HCM) provided to children in the age group 3-6-year-olds in AWCs and Take-Home Rations (THR) provided to the remaining beneficiaries. Figure 14.1 shows the number of beneficiaries of SNP. Beneficiaries of THR component was highest in Koderma, while for HCM, it was highest in Dumka.

Figure 14.1: Total number of beneficiaries of components of SNP (as on December 2017)



Source: Department of Women, Child Development & Social Security, Government of Jharkhand

3. Integrated Child Protection Scheme (ICPS)

The ICPS was implemented as a centrally sponsored scheme to be operated by the state governments to assist in improving the well-being of children in distress. Under the scheme, Child Welfare Committees (CWCs) and Juvenile Justice Boards (JJBs) were set up as statutory bodies under the Juvenile Justice (Care and Protection of Children) Act, 2015. For effective implementation of the scheme, the service delivery structure in the state is as follows:

- i. Jharkhand state Child Protection Societies (SCPS)
- ii. State Adoption Resource Agencies (SARA)
- iii. District Child Protection Units (DCPS)
- iv. Juvenile Homes

The scheme also provides care, protection and rehabilitation services. It provides both institutional and non-institutional care. For this purpose, Children Home, Observation Homes run by Government and NGO's, Open Shelters for Children in urban and semi-urban areas, and specialized adoption agencies are set up.

Table 14.5: Status of Jharkhand State Child Protection Scheme Service Delivery Structure (as on December 2017)

| Institutions | Number |
|-----------------------------------|--------|
| Child Welfare Committee | 24 |
| Juvenile Justice Board | 24 |
| Special Juvenile Police Unit | 26 |
| District Child Protection Society | 24 |
| Children Homes | |
| Government | 5 |
| NGO | 20 |
| Specialised Adoption Agency | 3 |
| Observation Home | 10 |
| Special Homes | 1 |

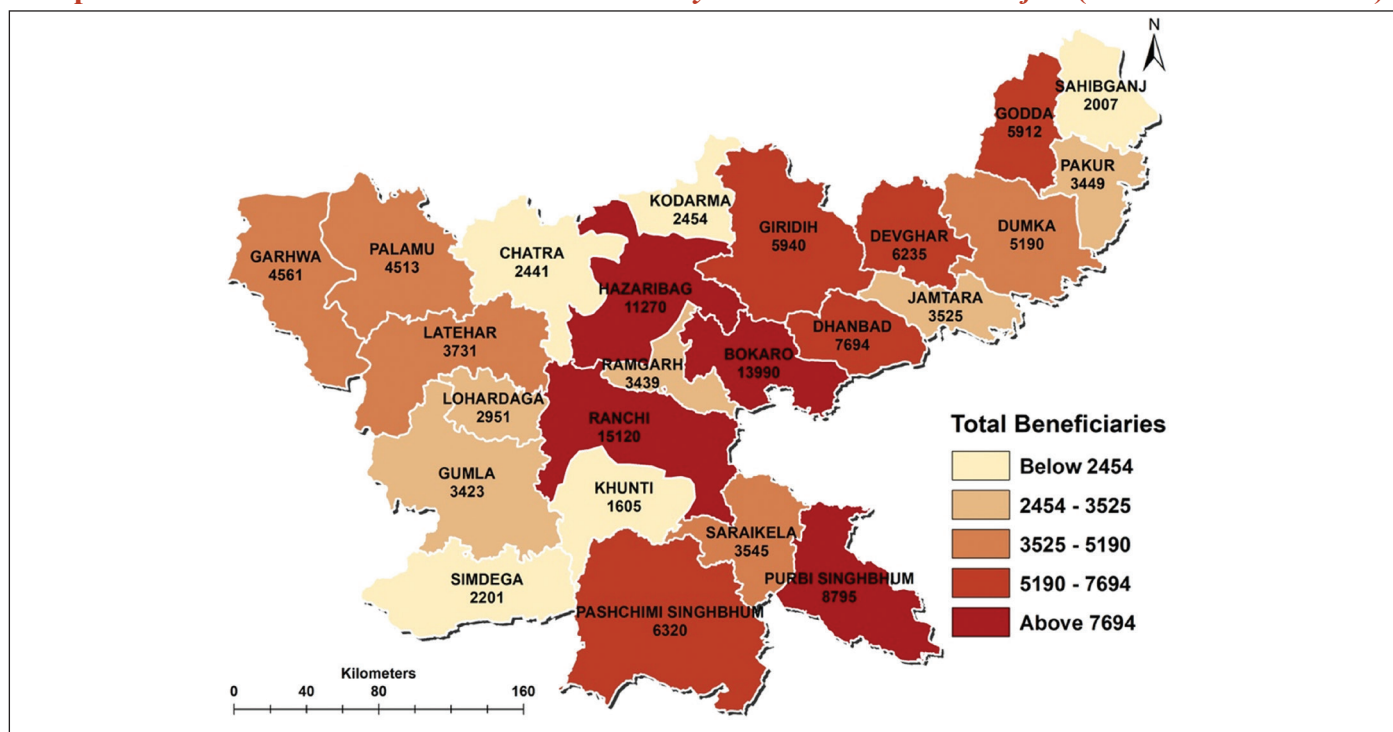
Source: scps.jharkhand.ind.in

4. Mukhyamantri Laxmi Ladli Yojna (MLLY)

The scheme was implemented by the state government to ensure the survival of girl child. Under the scheme, financial assistance is provided to the girl child having her parental income not more than Rs. 72,000/- per annum.

Under the scheme, the state government will deposit Rs. 30000 in the name of the girl child over a span of 5 years in the Post Office. As on December, 2017 ; 130311 girls are benefiting from this scheme. The number of beneficiaries was highest in Ranchi and lowest in Khunti.

Map 14.2: Total number of beneficiaries of Mukhyamantri Laxmi Ladli Yojna (as on December 2017)



Source: Compiled using data from Department of Women, Child Development & Social Security, Government of Jharkhand

5. Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG)-SABLA

The scheme is implemented by the state government with the vision to empower adolescent girls in the age group of 11-18 years by improving their nutritional and health status, up gradation of home skills, life skills and vocational skills. The scheme has two components- nutrition and non-nutrition. Under the supplementary nutrition component, out-of-school girls (11-14 years) and school-going girls (11-18 years) are provided supplementary nutrition in the form of THR or HCM containing 600 calories, 18-20 grams of protein, and micronutrients, per day for 300 days in a year. While under the non-nutrition component, out-of-school girls are given Iron Folic Acid (IFA) supplement; health check-up and referral services; nutrition and health education; Adolescent Reproductive and Sexual Health (ARSH) counselling/guidance on family welfare; life skill education; and guidance on accessing public services and vocational training (16-18-years). The scheme also aimed at encouraging out-of-school adolescent girls into formal/non-formal education. In Jharkhand, the scheme is

implemented in seven districts viz. Ranchi, Hazaribagh, Giridih, Pashchimi Singhbhum, Garhwa, Giridih and Sahibganj, through the ICDS. The Centre-State funding is in the ratio of 50:50 for the nutritional component and 60:40 for the non-nutritional component. But from December 2017, age group of girls has been modified from 11-18 years to 11-14 years and only out-of-school girls will be benefited. Now all districts of the state will come under this scheme.

Table 14.6: Total number of beneficiaries of Nutrition component of SABLA (as on December 2017)

| District | Total number of beneficiaries |
|---------------------|-------------------------------|
| Pashchimi Singhbhum | 63962 |
| Garhwa | 10660 |
| Hazaribagh | 82242 |
| Giridih | 71060 |
| Ranchi | 76159 |
| Gumla | 44737 |
| Sahibganj | 53877 |
| Jharkhand | 402697 |

Source: Department of Women, Child Development & Social Security, Government of Jharkhand

Under the nutrition component of SABLA, 402697 girls are benefitted. The district having the highest number of beneficiaries is Hazaribagh followed by West Singhbhum. While under the non-nutrition component, the total number of beneficiaries is 692498.

Table 14.7: Total number of beneficiaries of Non-Nutrition component of SABLA (as on December 2017)

| District | Total number of beneficiaries |
|---------------------|-------------------------------|
| Garhwa | 45113 |
| Giridih | 131619 |
| Gumla | 72100 |
| Hazaribagh | 135654 |
| Ranchi | 128878 |
| Sahibganj | 90297 |
| Pashchimi Singhbhum | 88837 |
| Jharkhand | 692498 |

Source: Department of Women, Child Development & Social Security, Government of Jharkhand

c. Schemes implemented by Centre and State for the Welfare of Disabled

1. Welfare for Disabled Persons

Under this scheme, the state government provides a special measure for the welfare of the people who are disabled. As a part of the scheme, special equipment for disabled people are purchased, workshop and seminars are organised for them, and their economic and social surveys are conducted among several other measures for their welfare.

2. Scholarship to disabled people

Scholarships are provided to disabled children in schools and colleges. The rates of the scholarship differ across the level of schooling. Scholarship to

students from standard 1 to 8 enrolled in a government school is given Rs. 50 per month, while children from standard 9 to graduation in government schools/colleges received Rs. 250 per month. Postgraduate students in the government colleges received Rs. 260 per month. Residential students of standard 1 to 8 in government colleges received Rs. 100 per month. In addition to this, schools run by registered NGOs, especially working for children with special abilities are required to provide the scholarship to children who are blind, deaf, mute or any other kind of disability. Table 14.8 shows the total number of beneficiaries of the scholarship scheme for the disabled people. In total, 1993 disabled children are availing the scheme.

Table 14.8: Total number of beneficiaries of Scholarships for Disabled (as on December 2017)

| Districts | Total number of beneficiaries |
|---------------------|-------------------------------|
| Chatra | 70 |
| Deoghar | 250 |
| Dhanbad | 392 |
| Garhwa | 74 |
| Giridih | 90 |
| Hazaribagh | 221 |
| Khunti | 236 |
| Latehar | 170 |
| Ranchi | 107 |
| Saraikeela | 25 |
| Simdega | 111 |
| Pashchimi Singhbhum | 247 |
| Jharkhand | 1993 |

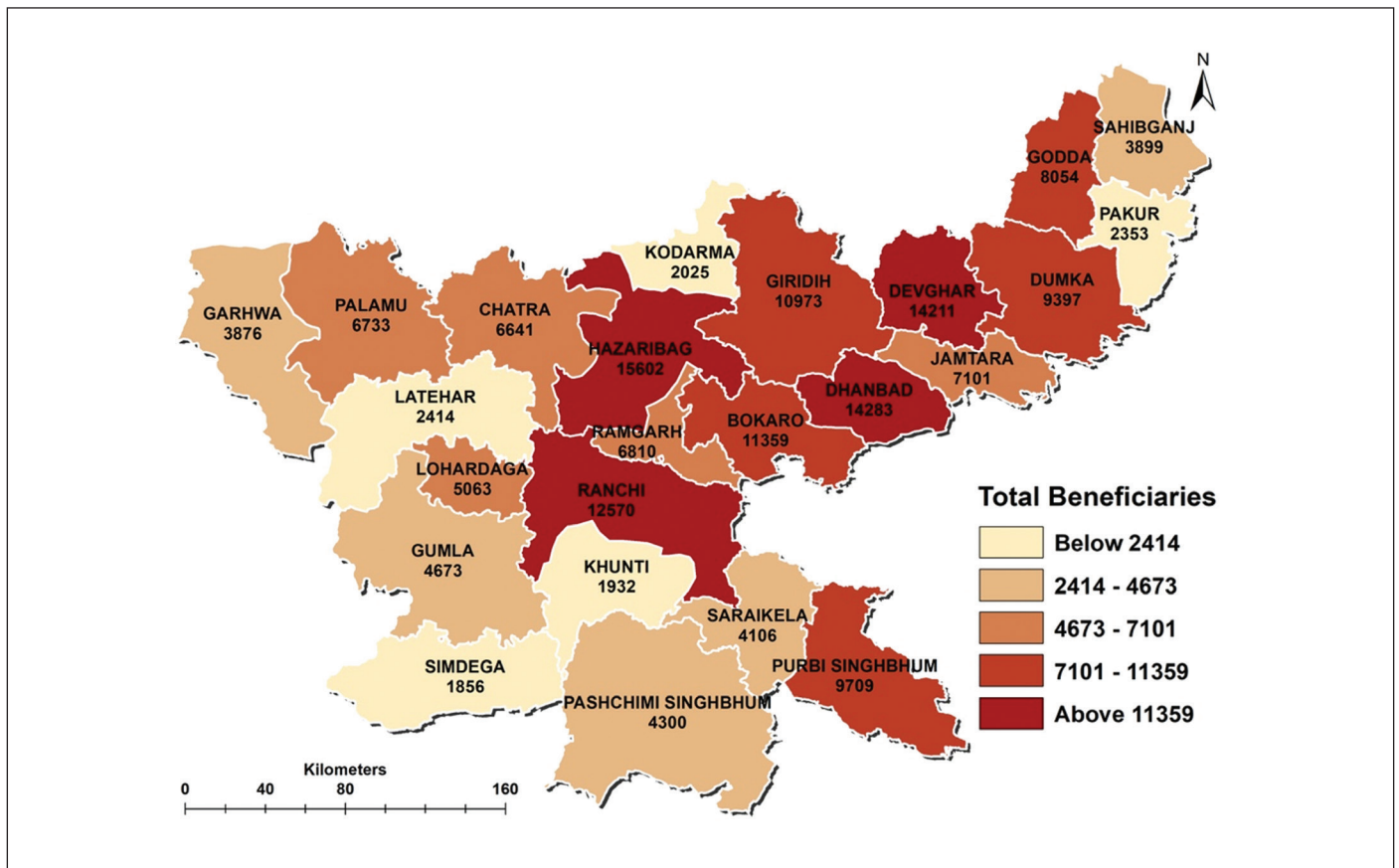
Source: Department of Women, Child Development & Social Security, Government of Jharkhand

3. Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana (SVNSPY)

Under this scheme, a disabled person from any

category residing in the state as per the survey conducted by the Anganwadi Workers are granted an amount of Rs. 600 per month. Under this scheme, 169940 disabled people were benefitted.

Map 14.3: Total number of beneficiaries of Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana (SVNSPY) (as on December 2017)



Source: Compiled using data from Department of Women, Child Development & Social Security, Government of Jharkhand

Schemes implemented for Social Security

The Department of Women, Child and Social Security also takes the responsibility of providing social protection to people against economic and social distress. Social security provides cash benefits to persons with sickness and disability, unemployment, maternity or retirement. Providing social security to people with little

or no regular means of subsistence is vital to poverty and vulnerability. Social security schemes include various pension schemes, social assistance schemes, maternity benefit, etc. The National Social Assistance Programme (NSAP) is one of the oldest social assistance programme introduced in 1995. It is a centrally sponsored scheme that provides financial assistance to the widows, elderly and disabled persons in the form of social pensions.

Table 14.9: List of Centrally sponsored Social Security Schemes (2017)

| Name of the Schemes | Centre Share |
|--------------------------------|--------------|
| National Family Benefit Scheme | 100 |

Source: Planning-cum-Finance Department (Planning Division), Government of Jharkhand

Table 14.10: List of Centre-State sponsored Social Security Schemes (2017)

| Name of the Schemes | Centre-State Share |
|--|--------------------|
| Indira Gandhi National Old Age Pension Scheme (beneficiaries of 60-79 years of age) | 33:67 |
| Indira Gandhi National Old Age Pension Scheme (beneficiaries of above 80 years of age) | 71:29 |
| Indira Gandhi National Widow Pension Scheme | 50:50 |
| Indira Gandhi National Disability Pension Scheme | 50:50 |

Source: Planning-cum-Finance Department (Planning Division), Government of Jharkhand

Table 14.11: List of State-sponsored Social Security Schemes

| Name of the Schemes | State Share |
|--|-------------|
| State Social Security Pension Scheme | 100 |
| Pension Scheme for Primitive Tribal Group | 100 |
| State Widow Pension Scheme | 100 |
| State Pension Scheme for HIV/AIDS affected persons | 100 |

Source: Planning-cum-Finance Department (Planning Division), Government of Jharkhand

Status of Social Security Schemes in Jharkhand – Social Security

1. National Family Benefit Scheme (NFBS)

This scheme is a part of National Social Assistance Programme implemented by the Central government to provide financial assistance to BPL families in the event of the death of an earning member (of age between 18 to 60 years). Under this scheme, a one-time payable sum of Rs. 20,000/- is provided to the bereaved family.

2. Indira Gandhi National Old Age Pension Scheme (IGNOAPS) (beneficiaries of 60-79 years of age)

Under the IGNOAPS, individuals between the age group of 60 to 79 years belonging to BPL families are provided with the pension at the rate of Rs. 600 per month. Of the total amount paid, the state share is Rs. 400/- per month while the centre's share is Rs. 200/- per month. Following the recommendation of Tendulkar Committee report, all persons of age 60 years and above whose annual income is up to Rs. 7995 in rural areas and up to Rs.9974 in urban areas can avail this scheme. The total number of beneficiaries of the central government old age scheme in the state was 862545.

Table 14.12: Total number of beneficiaries of Indira Gandhi National Old Age Pension Scheme (as on December 2017)

| Districts | Total number of beneficiaries | Districts | Total number of beneficiaries |
|-----------------|-------------------------------|---------------------|-------------------------------|
| Bokaro | 31945 | Koderma | 20257 |
| Chatra | 27344 | Latehar | 25533 |
| Deoghar | 29787 | Lohardaga | 9964 |
| Dhanbad | 49000 | Pakur | 18601 |
| Dumka | 43484 | Palamu | 75466 |
| Purbi Singhbhum | 49803 | Ramgarh | 20670 |
| Garhwa | 61425 | Ranchi | 51075 |
| Giridih | 53098 | Sahibganj | 31674 |
| Godda | 50991 | Saraikela | 40719 |
| Gumla | 27278 | Simdega | 20100 |
| Hazaribagh | 41006 | Pashchimi Singhbhum | 29049 |
| Jamtara | 31477 | Jharkhand | 862545 |
| Khunti | 22799 | | |

Source: Department of Women, Child Development & Social Security, Government of Jharkhand

3. Indira Gandhi National Old Age Pension Scheme (IGNOAPS) (beneficiaries of above 80 years of age)

pension at the rate of Rs. 700 per month with the Centre-state share in the ratio of 71:29. The central government scheme for elderly people above 80 years is benefiting 41840 old aged people in Jharkhand.

Individuals above age 80 years are entitled to receive the

Table 14.13: Total number of beneficiaries of the Indira Gandhi National Old Age Pension Scheme 80 (as on December 2017)

| Districts | Total number of beneficiaries | Districts | Total number of beneficiaries |
|-----------------|-------------------------------|---------------------|-------------------------------|
| Bokaro | 1166 | Koderma | 1957 |
| Chatra | 3396 | Latehar | 601 |
| Deoghar | 300 | Lohardaga | 308 |
| Dhanbad | 940 | Pakur | 405 |
| Dumka | 834 | Palamu | 4452 |
| Purbi Singhbhum | 1956 | Ramgarh | 1154 |
| Garhwa | 3708 | Ranchi | 5273 |
| Giridih | 2326 | Sahibganj | 1326 |
| Godda | 1202 | Saraikela | 2345 |
| Gumla | 826 | Simdega | 810 |
| Hazaribagh | 3243 | Pashchimi Singhbhum | 1208 |
| Jamtara | 1495 | Jharkhand | 41840 |
| Khunti | 609 | | |

Source: Department of Women, Child Development & Social Security, Government of Jharkhand

4. Indira Gandhi National Widow Pension Scheme (IGNWPS)

Under this scheme, each widow in a BPL family in the age group between 40 and 79 years is entitled to receive the pension at the rate of Rs. 600 per month. The centre-state funding is in the ratio of 50:50. Following the

recommendation of the Tendulkar Committee report, all the widows in this age category having an annual income up to Rs.7995 in the rural area and up to Rs. 9474 in urban areas can avail the scheme. Under this scheme, 257348 widows are provided pension to meet their expenses during old age.

Table 14.14: Total number of beneficiaries of the Indira Gandhi National Widow Pension Scheme (as on December 2017)

| Districts | Total number of beneficiaries | Districts | Total number of beneficiaries |
|-----------------|-------------------------------|---------------------|-------------------------------|
| Bokaro | 11745 | Koderma | 11288 |
| Chatra | 11966 | Latehar | 8161 |
| Deoghar | 8827 | Lohardaga | 4301 |
| Dhanbad | 17601 | Pakur | 15531 |
| Dumka | 13993 | Palamu | 11406 |
| Purbi Singhbhum | 9162 | Ramgarh | 5973 |
| Garhwa | 10531 | Ranchi | 12817 |
| Giridih | 19477 | Sahibganj | 13108 |
| Godda | 9254 | Saraikela | 11925 |
| Gumla | 6939 | Simdega | 5800 |
| Hazaribagh | 18237 | Pashchimi Singhbhum | 9507 |
| Jamtara | 5121 | Jharkhand | 257348 |
| Khunti | 4678 | | |

Source: Department of Women, Child Development & Social Security, Government of Jharkhand

5. Indira Gandhi National Disability Pension Scheme (IGNDPS)

Under this scheme, all disabled persons belonging to the age group 18-79 years having 80 per cent disability, defined under PWD Act, 1995, and National Trust Act, 1990 and those with an annual income up to Rs.7995 in

rural areas and up to Rs. 9474 in urban areas are eligible to receive the pension at the rate of Rs. 600 per month. The centre-state share is in the ratio of 50:50. The pension scheme for the people with disability is availed by 21146 beneficiaries in the state.

Table 14.15: Total number of beneficiaries of the Indira Gandhi National Disability Pension Scheme (as on December 2017)

| Districts | Total number of beneficiaries | Districts | Total number of beneficiaries |
|-----------------|-------------------------------|---------------------|-------------------------------|
| Bokaro | 772 | Koderma | 439 |
| Chatra | 1413 | Latehar | 499 |
| Deoghar | 1326 | Lohardaga | 57 |
| Dhanbad | 2284 | Pakur | 401 |
| Dumka | 969 | Palamu | 1091 |
| Purbi Singhbhum | 706 | Ramgarh | 96 |
| Garhwa | 1683 | Ranchi | 513 |
| Giridih | 1423 | Sahibganj | 593 |
| Godda | 1120 | Saraikela | 938 |
| Gumla | 548 | Simdega | 415 |
| Hazaribagh | 1784 | Pashchimi Singhbhum | 520 |
| Jamtara | 1035 | Jharkhand | 21146 |
| Khunti | 521 | | |

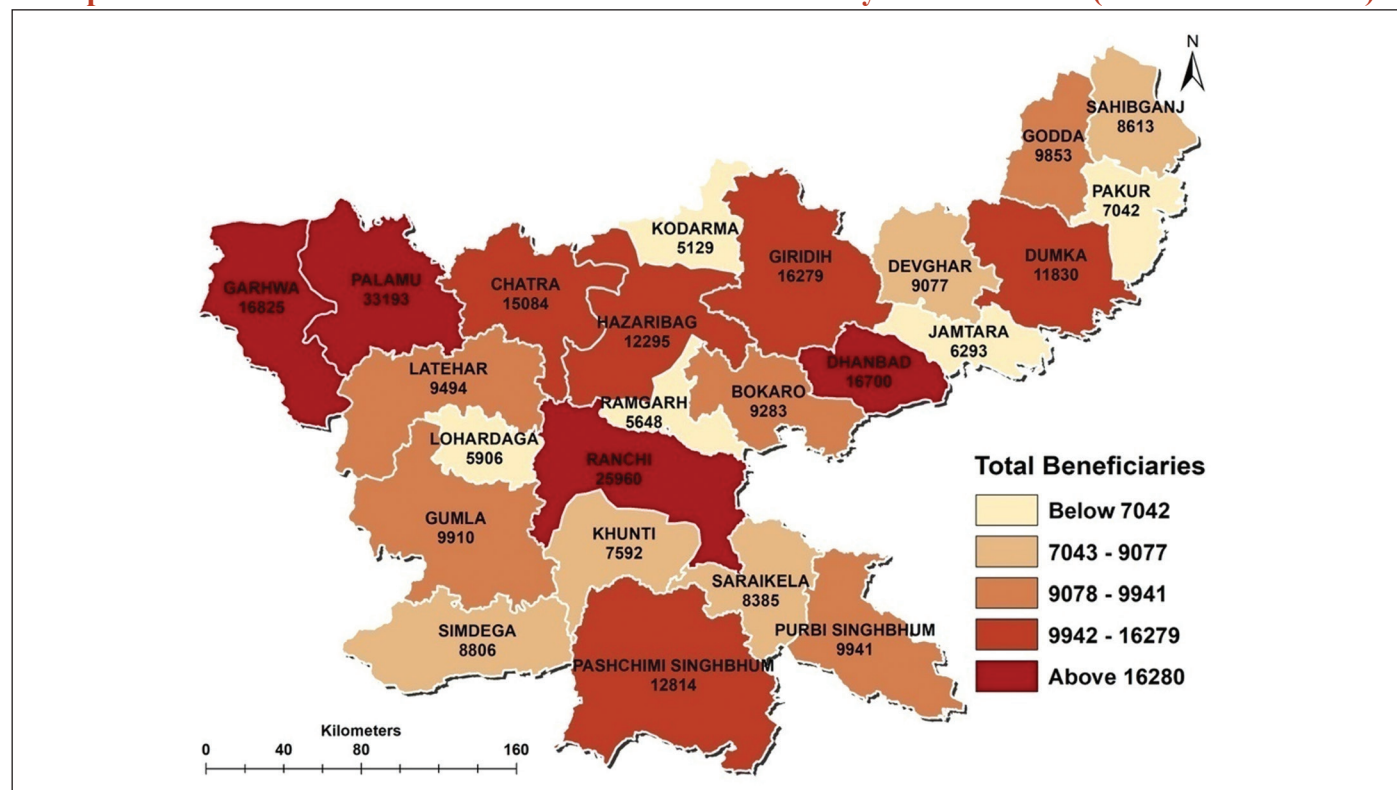
Source: Department of Women, Child Development & Social Security, Government of Jharkhand

6. State Social Security Pension Scheme (SSSPS)

Under this scheme, all widows, disabled persons, and released bonded labourers who are above the 18 years of age and helpless persons of 60 years and above age are receiving state government pension. All non-BPL persons of 60 years and above residing in rural areas with

an annual income of 10500/- and non-BPL persons of 60 years and above in the urban areas having an annual income of 12500/- receive the pension at the rate of Rs. 600/- per month per person by state Government. The number of beneficiaries of the state government pension scheme is highest in the district of Palamu followed by Ranchi.

Map 14.4: Total number of beneficiaries of the State Social Security Pension Scheme (as on December 2017)



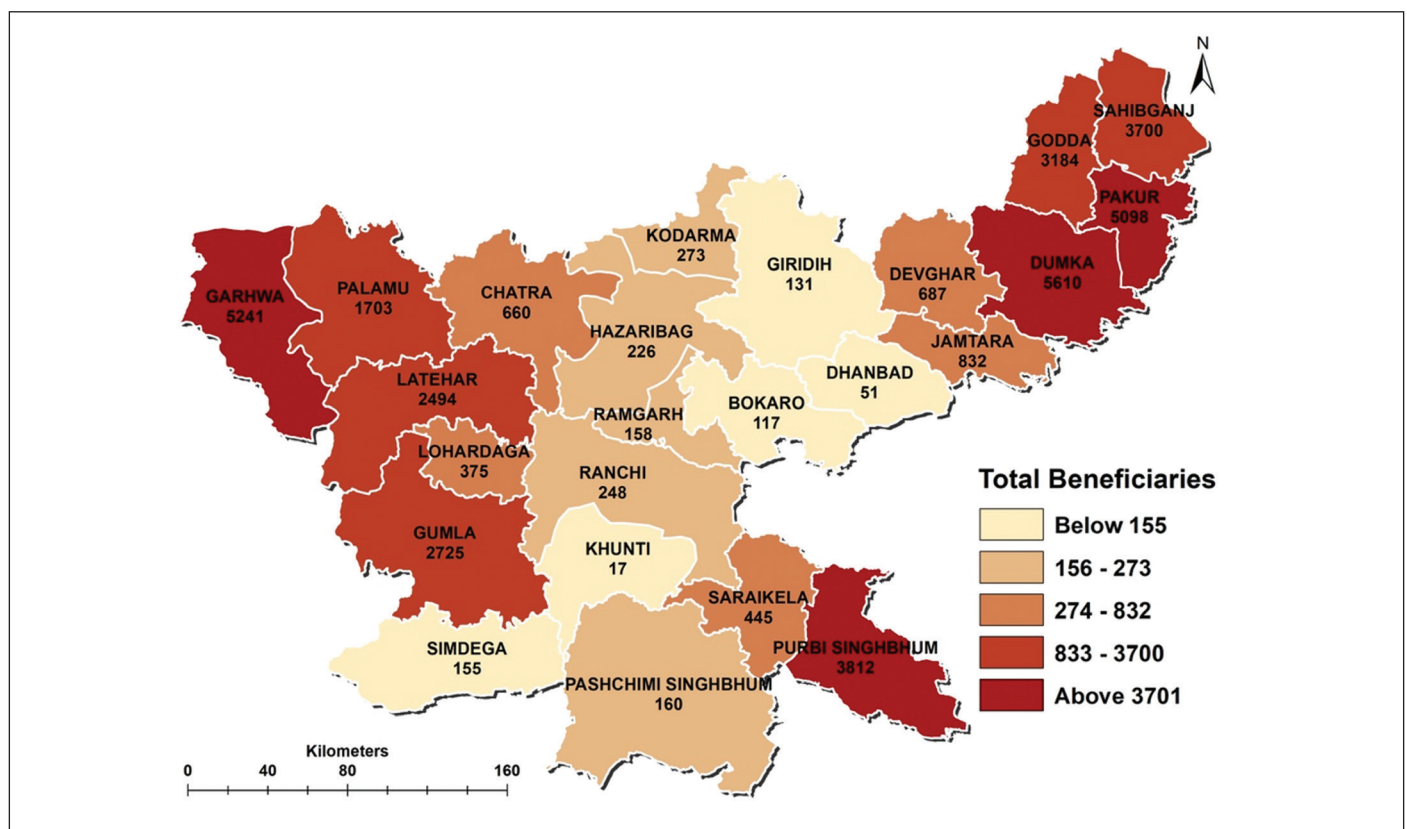
Source: Compiled using data from Department of Women, Child Development & Social Security, Government of Jharkhand

7. Pension Scheme for Primitive Tribal Group/ Aadim JanJati Pension Yojna (PSPTG/AJJPY)

In the state, 8 tribes have been classified as Primitive Tribal Groups, viz. Asur, Birhor, Birajia, Parahiya, Korwa, Mal Paharia, Sauria Paharia and Savar. The Pension Scheme

for Primitive Tribal Group was initiated to promote the development of these 9 tribal communities. Under this scheme, one member of these 8 tribes is entitled to receive the pension at the rate of Rs. 600 per month.

Map 14.5: Total number of beneficiaries of the Pension Scheme for Primitive Tribal Group (as on December 2017)



Source: Compiled using data from Department of Women, Child Development & Social Security, Government of Jharkhand

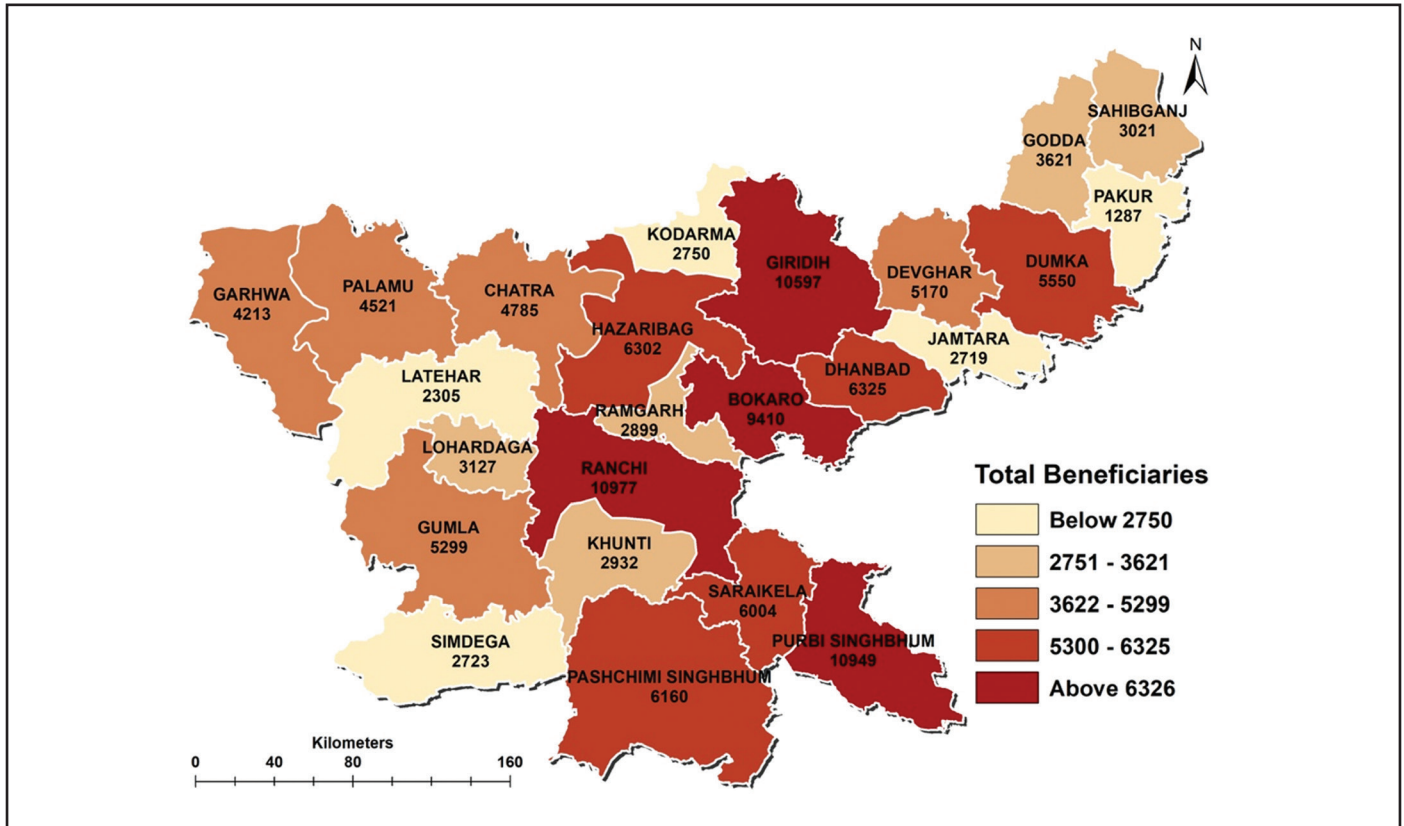
8. State Widow Pension Scheme/Rajya Vidhwa Samman Pension Yojna (SWPS/RVSPY)

Under the scheme, all widows above 18 years of age are entitled to receive a pension to provide financial assistance. According to this scheme, the pension amount at the rate of Rs. 600 per month is provided to all beneficiaries. The total number of beneficiaries under the scheme as on December 2017 is 123646.

9. State Pension scheme for HIV/AIDS Affected persons/Immuno-Deficiency Pension Scheme (IDPS)

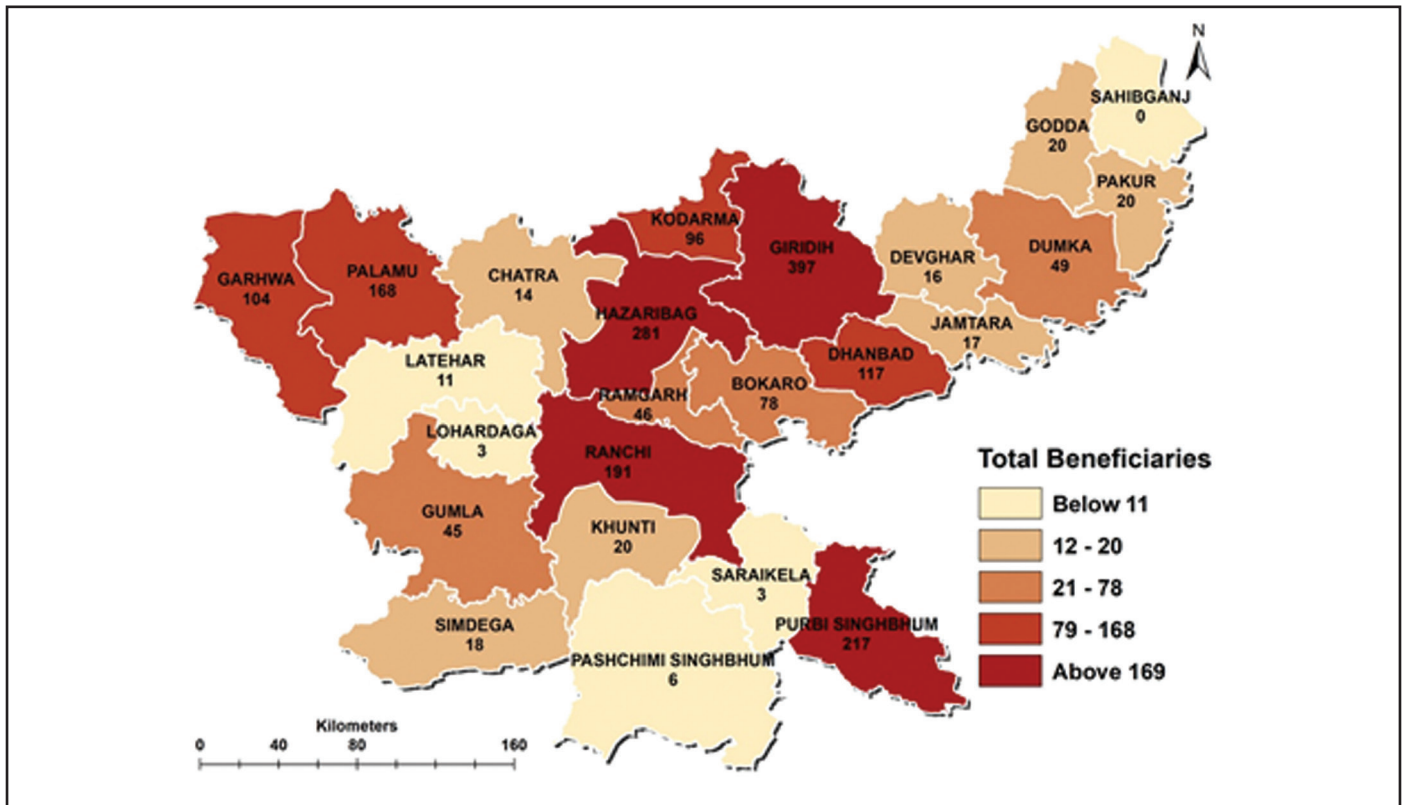
This scheme provides financial assistance to all HIV/AIDS affected persons of all categories at the rate of Rs.600 per month by the state. The total number of beneficiaries under this scheme was 1937. Giridih has the highest number of beneficiaries of this scheme.

Map 14.6: Total number of beneficiaries of the State Widow Pension Scheme (as on December 2017)



Source: Compiled using data from Department of Women, Child Development & Social Security, Government of Jharkhand

Map 14.7: Total number of beneficiaries of the State Pension scheme for HIV/AIDS Affected persons (as on December 2017)



Source: Compiled using data from Department of Women, Child Development & Social Security, Government of Jharkhand

Conclusion

The status of women and children in Jharkhand has improved over the last financial year. The human development indicators reveal the progress of the state. The continuous endeavour on the part of government to empower women and safeguard the rights of the children

is commendable. However, a considerable number of women and children are economically deprived. Women and children in the state continue to face discrimination and lack access to basic facilities. Hence, a more focused intervention by the government is required to ensure inclusive development of the state.

XV

**TRIBAL
WELFARE AND
INTERVENTIONS
FOR THE
UNDERPRIVILEGED**



Around 91 per cent of the tribal population in Jharkhand resides in the rural areas. Of this tribal population, 81 per cent of the ST rural households continue to live with a monthly income below Rs. 5000. Also 34 per cent of the rural ST households have no literate adults above 25 years.

As per the Census of India, 2011, the population of

Scheduled Tribes in Jharkhand is 8.65 million, which is 26.2 per cent of the total population of the state. Of the total Tribal population, 4.32 million are males and 4.33 million are females. Table 15.1 gives the demographic statistics of the STs in Jharkhand for 2001 and 2011. The decadal growth of ST population in the state was 22 per cent.

Table 15.1: Demographic Statistics of STs in Jharkhand (2011)

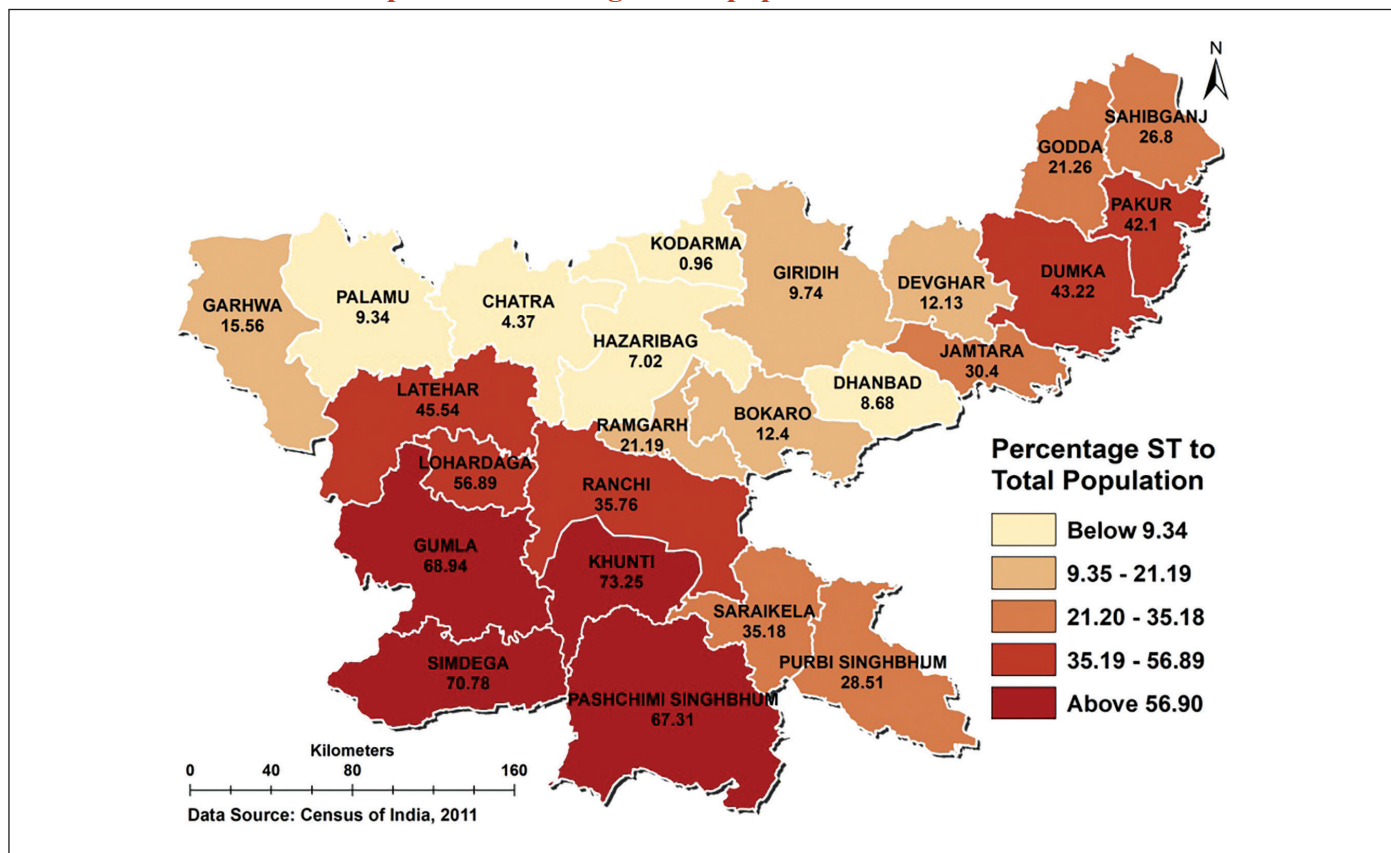
| State | Year | Jharkhand |
|---|------|------------|
| Total Population | 2001 | 26,945,829 |
| | 2011 | 32,988,134 |
| Decadal Growth in Per cent | 2001 | 22.4 |
| ST Population | 2001 | 7,087,068 |
| | 2011 | 8,645,042 |
| Total Male Population | 2011 | 4,315,407 |
| Total Female Population | 2011 | 4,329,635 |
| Decadal Growth in Per cent | 2011 | 22 |
| Per cent STs in State to total population of State | | 26.2 |
| Per cent STs in the State to total ST population in India | | 8.3 |

Source: Census of India, 2001 and 2011

The majority of the tribal population in Jharkhand resides in the rural areas, i.e., 91 per cent. The proportion of tribal population across the districts is shown in Map 15.1. The districts having a high concentration of tribal communities are Khunti, Simdega, Gumla and Paschimi Singhbhum.

Alternatively, Koderma has the lowest proportion of ST population in the state followed by Chatra. In total, there are 32 tribes in the state of Jharkhand. Among these tribes, 8 tribes are identified as Particularly Vulnerable Tribal Groups (PVTGs).

Map 15.1: Percentage of ST population in Jharkhand



Source: Compiled using Census of India, 2011

The Scheduled Castes constitute 12 per cent of the total population in Jharkhand, comprising of 2 million males and 1.94 million females (Census, 2011). The

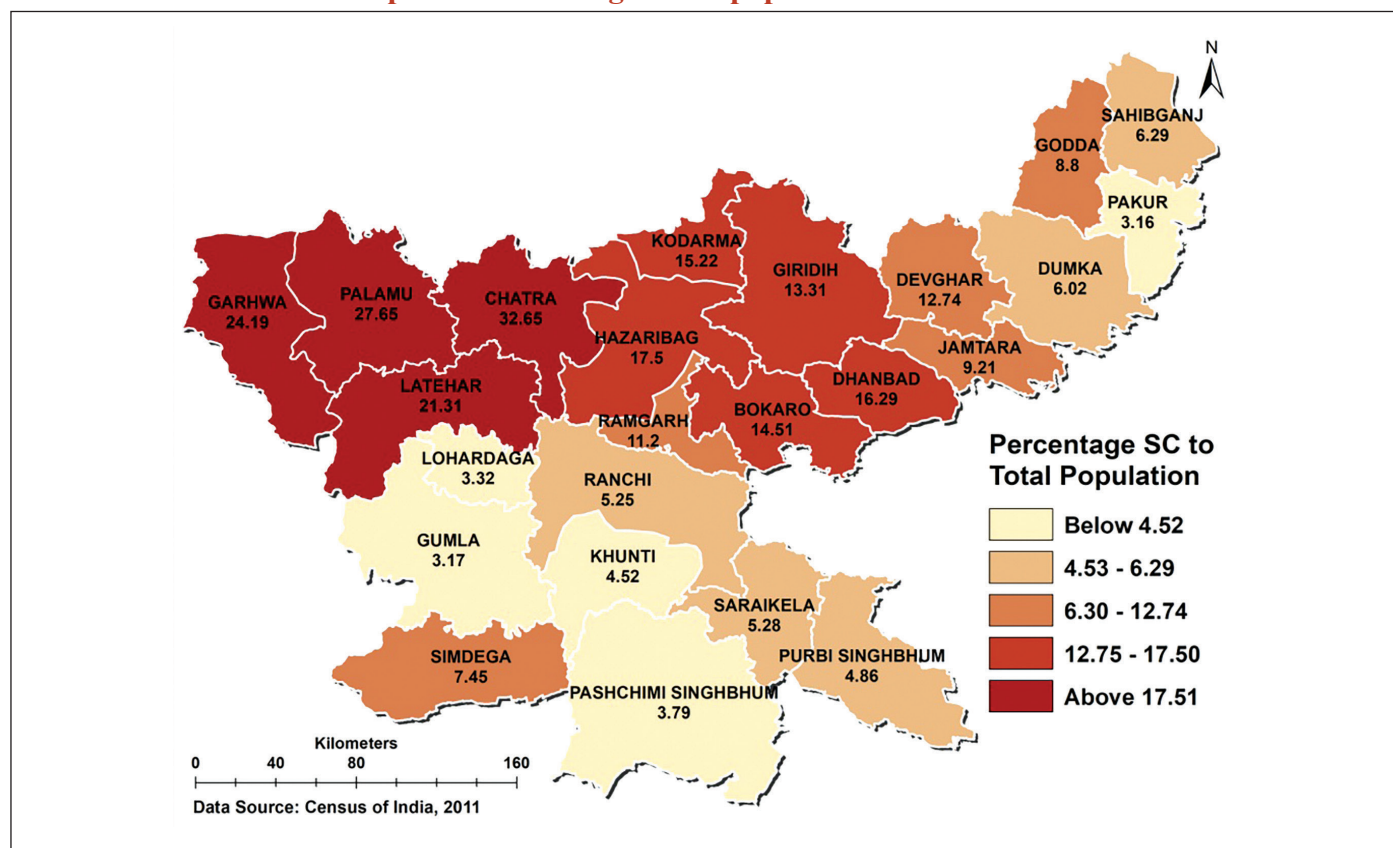
rural-urban distribution of SC population in the state was 79 per cent and 21 per cent respectively (Census, 2011).

Table 15.2: Demographic Statistics of SCs in Jharkhand

| State | Year | Jharkhand |
|---|------|------------|
| Total Population | 2001 | 26,945,829 |
| | 2011 | 32,988,134 |
| Decadal Growth in Per cent | 2001 | 22.4 |
| SC Population | 2001 | 3,189,320 |
| | 2011 | 3,985,644 |
| Total Male Population | 2011 | 2,043,458 |
| Total Female Population | 2011 | 1,942,186 |
| Decadal Growth in Per cent | 2011 | 25 |
| Per cent SCs in State to total population of State | | 12.08 |
| Per cent SCs in the State to total SC population in India | | 2 |

Source: Census of India, 2001 and 2011

Map 15.2: Percentage of SC population in Jharkhand



Source: Compiled using Census of India, 2011

Table 15.3: Distribution of Minority population across districts (2011) (%)

| Districts | Muslim | Christian | Sikh | Buddhist | Jain | Minority Proportion |
|-----------------|--------|-----------|------|----------|------|---------------------|
| Garhwa | 14.72 | 1.30 | 0.01 | 0.03 | 0.00 | 16.05 |
| Chatra | 11.19 | 0.63 | 0.09 | 0.00 | 0.01 | 11.92 |
| Koderma | 14.94 | 0.17 | 0.13 | 0.00 | 0.14 | 15.38 |
| Giridih | 20.80 | 0.60 | 0.04 | 0.03 | 0.06 | 21.52 |
| Deoghar | 20.28 | 0.40 | 0.01 | 0.01 | 0.02 | 20.73 |
| Godda | 22.02 | 2.88 | 0.01 | 0.01 | 0.01 | 24.92 |
| Sahibganj | 34.61 | 7.23 | 0.02 | 0.02 | 0.01 | 41.89 |
| Pakur | 35.87 | 8.43 | 0.04 | 0.03 | 0.02 | 44.39 |
| Dhanbad | 16.08 | 0.42 | 0.36 | 0.01 | 0.05 | 16.92 |
| Bokaro | 11.71 | 0.67 | 0.20 | 0.09 | 0.10 | 12.77 |
| Lohardaga | 20.57 | 3.63 | 0.01 | 0.01 | 0.00 | 24.23 |
| Purbi Singhbhum | 8.89 | 1.32 | 1.68 | 0.04 | 0.07 | 12.00 |
| Palamu | 12.28 | 0.32 | 0.04 | 0.01 | 0.01 | 12.66 |
| Latehar | 9.60 | 6.55 | 0.02 | 0.02 | 0.00 | 16.19 |
| Hazaribagh | 16.21 | 0.99 | 0.08 | 0.00 | 0.10 | 17.38 |
| Ramgarh | 13.59 | 0.76 | 0.54 | 0.01 | 0.06 | 14.96 |

| Districts | Muslim | Christian | Sikh | Buddhist | Jain | Minority Proportion |
|---------------------|--------|-----------|------|----------|------|---------------------|
| Dumka | 8.09 | 6.54 | 0.02 | 0.02 | 0.01 | 14.68 |
| Jamtara | 20.78 | 0.56 | 0.07 | 0.01 | 0.10 | 21.52 |
| Ranchi | 14.09 | 6.66 | 0.17 | 0.03 | 0.09 | 21.04 |
| Khunti | 2.47 | 25.65 | 0.01 | 0.05 | 0.03 | 28.21 |
| Gumla | 5.02 | 19.75 | 0.02 | 0.05 | 0.00 | 24.84 |
| Simdega | 2.52 | 51.14 | 0.01 | 0.13 | 0.02 | 53.81 |
| Pashchimi Singhbhum | 2.54 | 5.83 | 0.06 | 0.03 | 0.00 | 8.46 |
| Saraikela-Kharsawan | 5.97 | 0.76 | 0.10 | 0.02 | 0.01 | 6.86 |
| Jharkhand | 14.53 | 4.30 | 0.22 | 0.03 | 0.05 | 19.12 |

Source: Census of India, 2011

The minority religious communities in India which comprise of Muslims, Sikhs, Christians, Buddhists, Zoroastrians (Parsis) and Jains are notified as minority communities by Government of India in Gazette under Section 2(c) of the National Commission for Minorities Act, 1992.

Of the total population in Jharkhand, 19 per cent belong to religious minorities. The proportion of minorities across the districts of Jharkhand is shown in the Table 15.3.

Among the minority groups, the population of Muslims is the highest in the state followed by Christians. The proportion of Muslims was highest in Pakur followed by Sahibganj, while Simdega district had the highest proportion of Christians. The other

three minority communities, i.e., Sikhs, Buddhists and Jains, were meagrely distributed across the districts of Jharkhand. The districts with greater concentration of minority population in Jharkhand were Simdega (53.81 per cent), Pakur (44.39 per cent), Sahibganj (41.89 per cent) and Khunti (28.21 per cent).

The total number of Disabled Persons in India was reported to be 26.81 million, with 7 lakhs disabled residing in Jharkhand (Census, 2011). The per cent of disabled persons by type of disability is shown in the Table 15.4. The proportion of disabled persons who were vision impaired (23.47 per cent) was the highest in the state followed by those with hearing impairment (21.54 per cent).

Table 15.4: Total number of Disabled Persons with type of Disability

| India/ State | Total number of Disabled Persons | Type of Disability | | | | | | | |
|-----------------|--|--------------------|---------------|--------------|----------------|-----------------------|-------------------|--------------|------------------------|
| | | In seeing | In Hearing | In Speech | In Movement | Mental Retardation | Mental Illness | Any Other | Multiple Disability |
| India | 26814994 | 5033431 | 5072914 | 1998692 | 5436826 | 1505964 | 722880 | 4927589 | 2116698 |
| Jharkhand | 769980 | 180721 | 165861 | 46684 | 147892 | 37458 | 20157 | 112372 | 58835 |
| Per cent | | 23.47 | 21.54 | 6.06 | 19.21 | 4.86 | 2.62 | 14.59 | 7.64 |

Source: Census of India, 2011

Table 15.5: Total number of Disabled Persons by sector (Rural+Urban) with type of Disability

| India/State | Sector | Type of Disability | | | | | | | |
|-------------|--------|--------------------|------------|-----------|-------------|--------------------|----------------|-----------|---------------------|
| | | In seeing | In Hearing | In Speech | In Movement | Mental Retardation | Mental Illness | Any Other | Multiple Disability |
| India | Rural | 18.80 | 18.21 | 7.00 | 21.66 | 5.50 | 2.66 | 17.67 | 8.50 |
| | Urban | 18.71 | 20.53 | 8.49 | 17.13 | 5.87 | 2.78 | 19.98 | 6.51 |
| Jharkhand | Rural | 23.76 | 21.21 | 5.78 | 19.90 | 4.80 | 2.54 | 14.02 | 7.98 |
| | Urban | 22.45 | 22.69 | 7.04 | 16.80 | 5.08 | 2.90 | 16.58 | 6.46 |

Source: Census of India, 2011

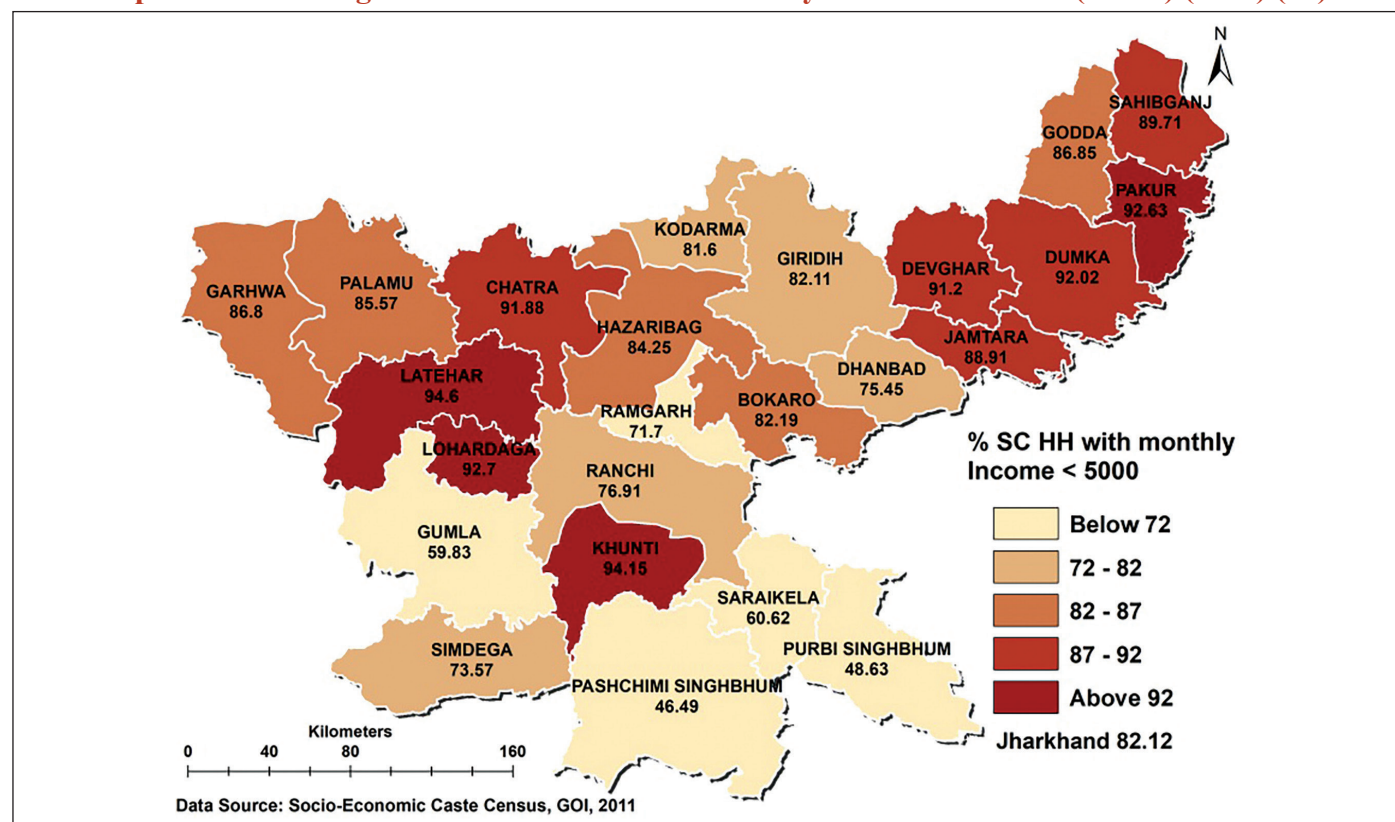
Table 15.5 details the proportion of disabled persons across the two sectors in India and Jharkhand. The proportion of disabled persons was more or less the same across the sectors in India. However, for Jharkhand, the proportion was slightly higher in the rural areas compared to urban areas. In Jharkhand, persons suffering from sight disability were higher in the rural areas, while those suffering from hearing disability were higher in the urban areas. The other forms of disability across the two sectors showed little variation.

Socio-economic status of SCs/STs in rural Jharkhand

Economic Status of SCs/STs

Map 15.3 shows the SC households in rural Jharkhand which have a monthly income of less than Rs. 5000 rupees. On an average, 82 per cent rural households in Jharkhand are living with subsistence income. The districts having more than 92 per cent households with a monthly income less than Rs. 5000 were Latehar, Khunti, Lohardaga and Pakur.

Map 15.3: Percentage of SC households with monthly income Rs. <5000 (Rural) (2011) (%)

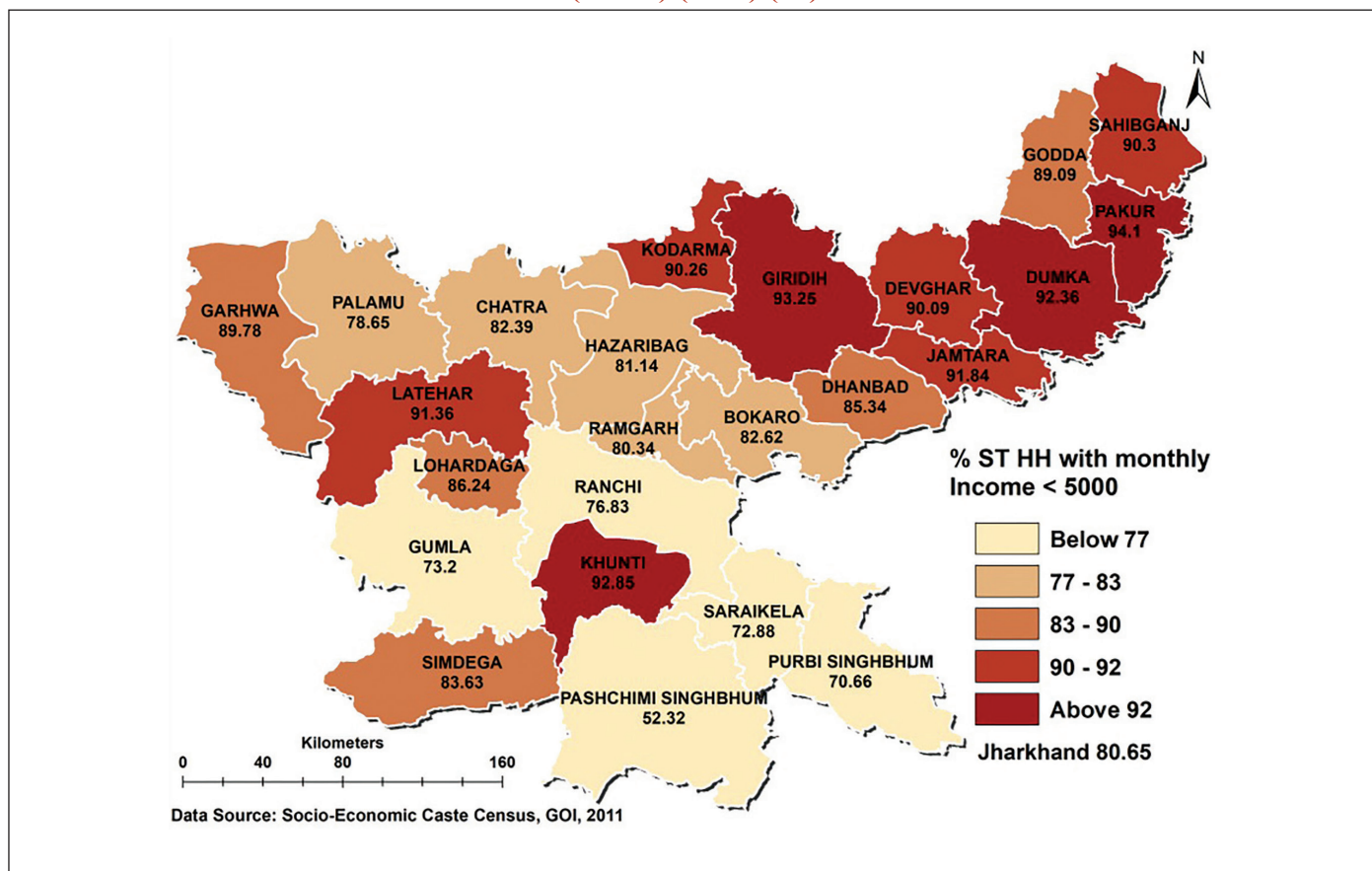


Source: Compiled using Socio-Economic Caste Census, 2011

Though the rural ST households, compared to the rural SC households in Jharkhand, reveal a better picture evident from the state average, the disparity across the districts is disheartening. Districts like

Pakur, Dumka, Giridih, Khunti have more than 92 per cent rural ST households with a monthly income below Rs. 5000, which is much higher than the state average (82 per cent).

Map 15.4: Percentage of ST households with monthly income Rs. <5000 (Rural) (2011) (%)



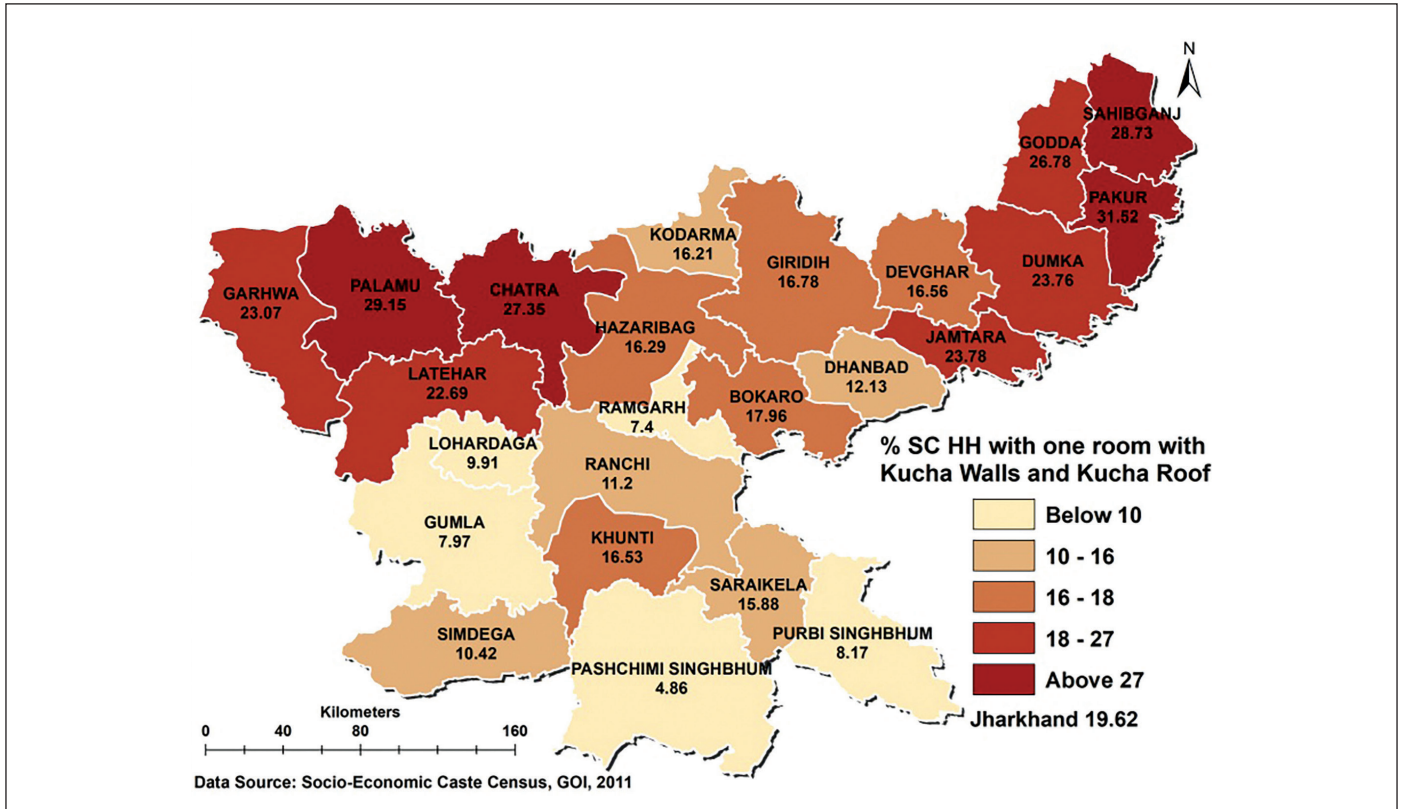
Source: Compiled using Socio-Economic Caste Census, 2011

Housing Conditions of SCs/STs

Almost 20 per cent of rural SC households in Jharkhand live in one room with Kutcha walls and

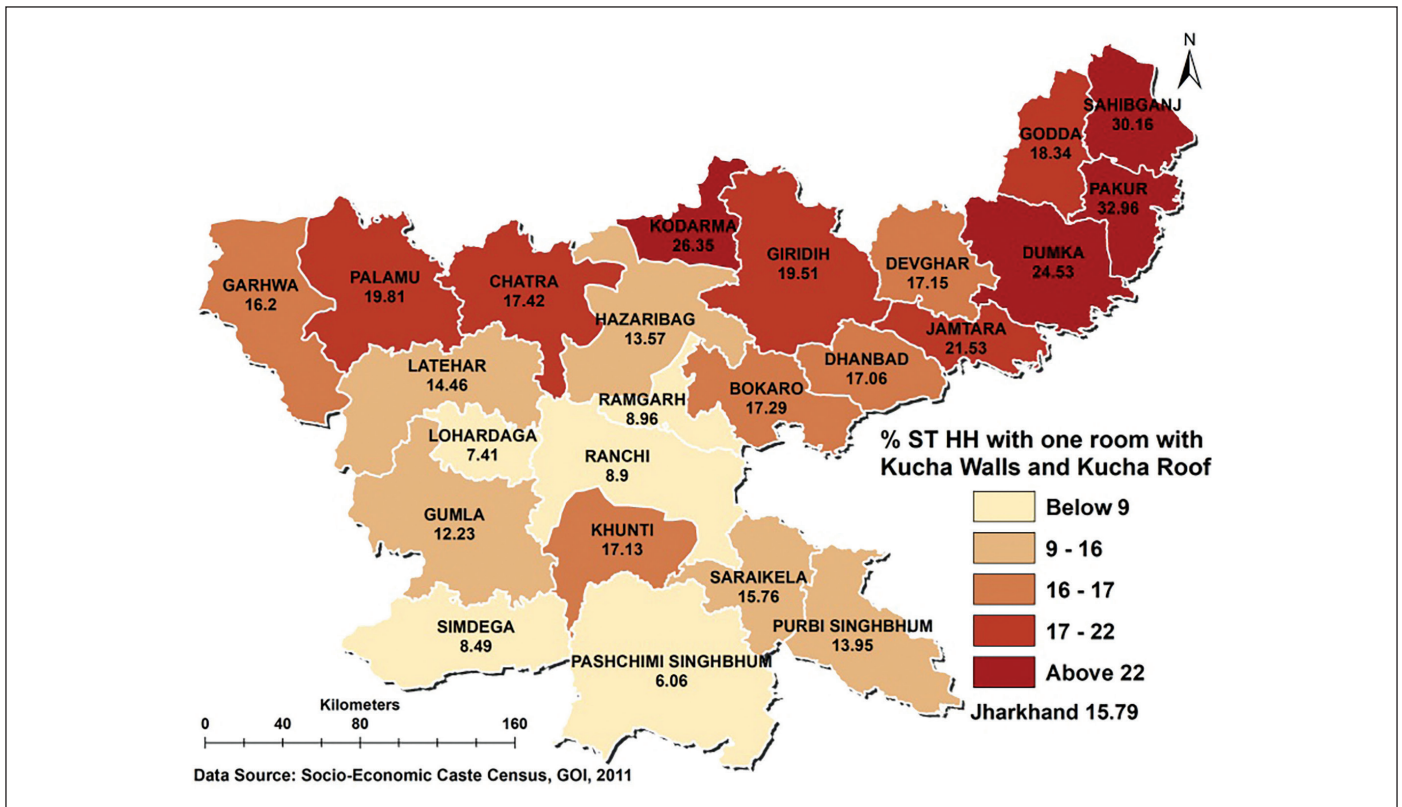
Kutcha roofs. The proportion of rural SC households living in such conditions was high in the districts of Pakur, Sahibganj, Palamu and Chatra.

Map 15.5: Percentage of SC households with one room with Kutch walls and Kutch Roofs (Rural) (2011) (%)



Source: Compiled using Socio-Economic Caste Census, 2011

Map 15.6: Percentage of ST households with one room with Kutch walls and Kutch Roofs (Rural) (2011) (%)



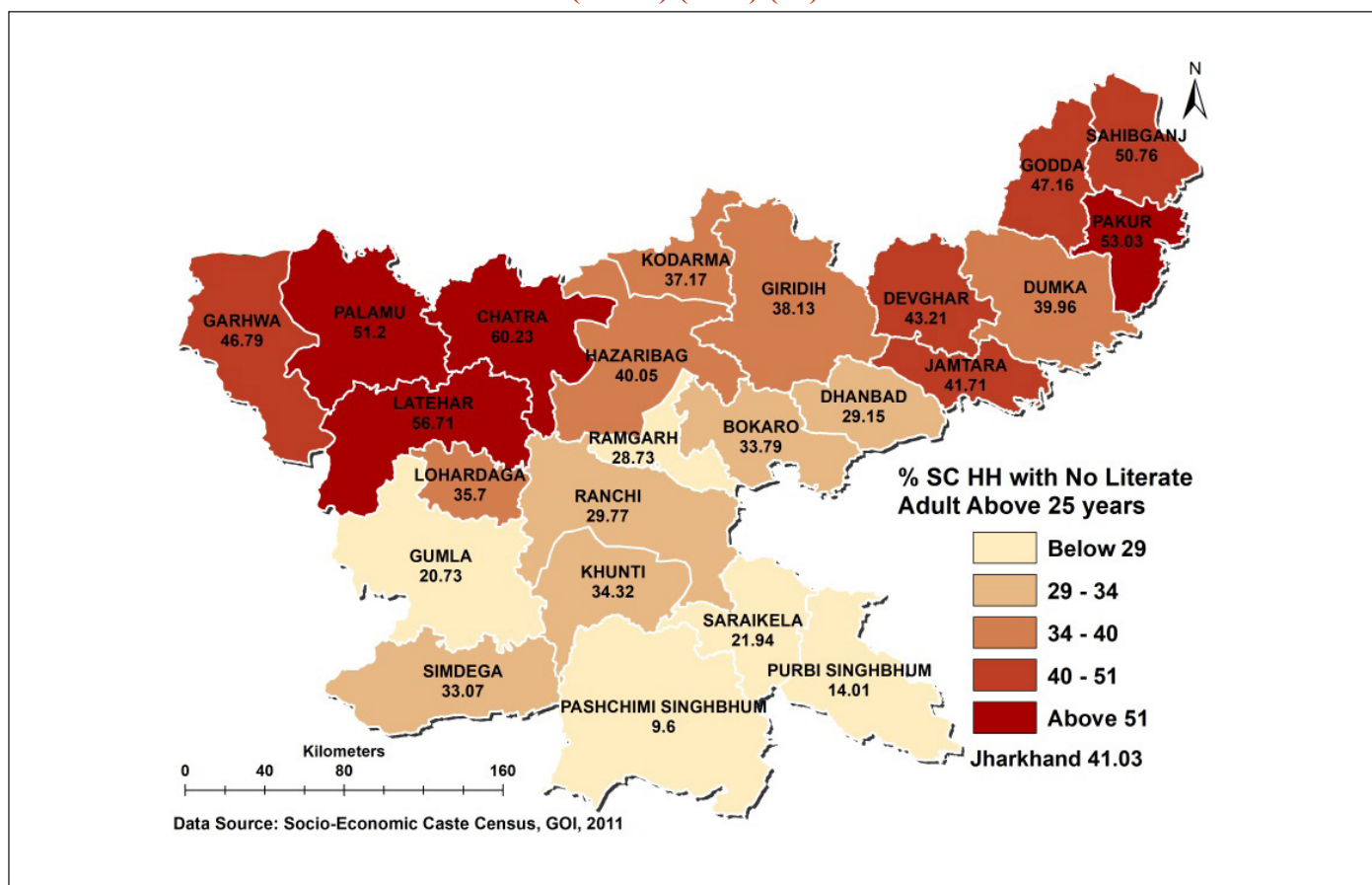
Source: Compiled using Socio-Economic Caste Census, 2011

Even after 17 years of formation of the state, the tribal households in the rural Jharkhand (around 16 per cent) are living in one room with Kutcha walls and Kutcha roofs. The district with greater proportion of rural ST households living in one room with Kutcha walls and roofs is Pakur (32 per cent), followed by Sahibganj (30 per cent).

Educational status of SCs/STs

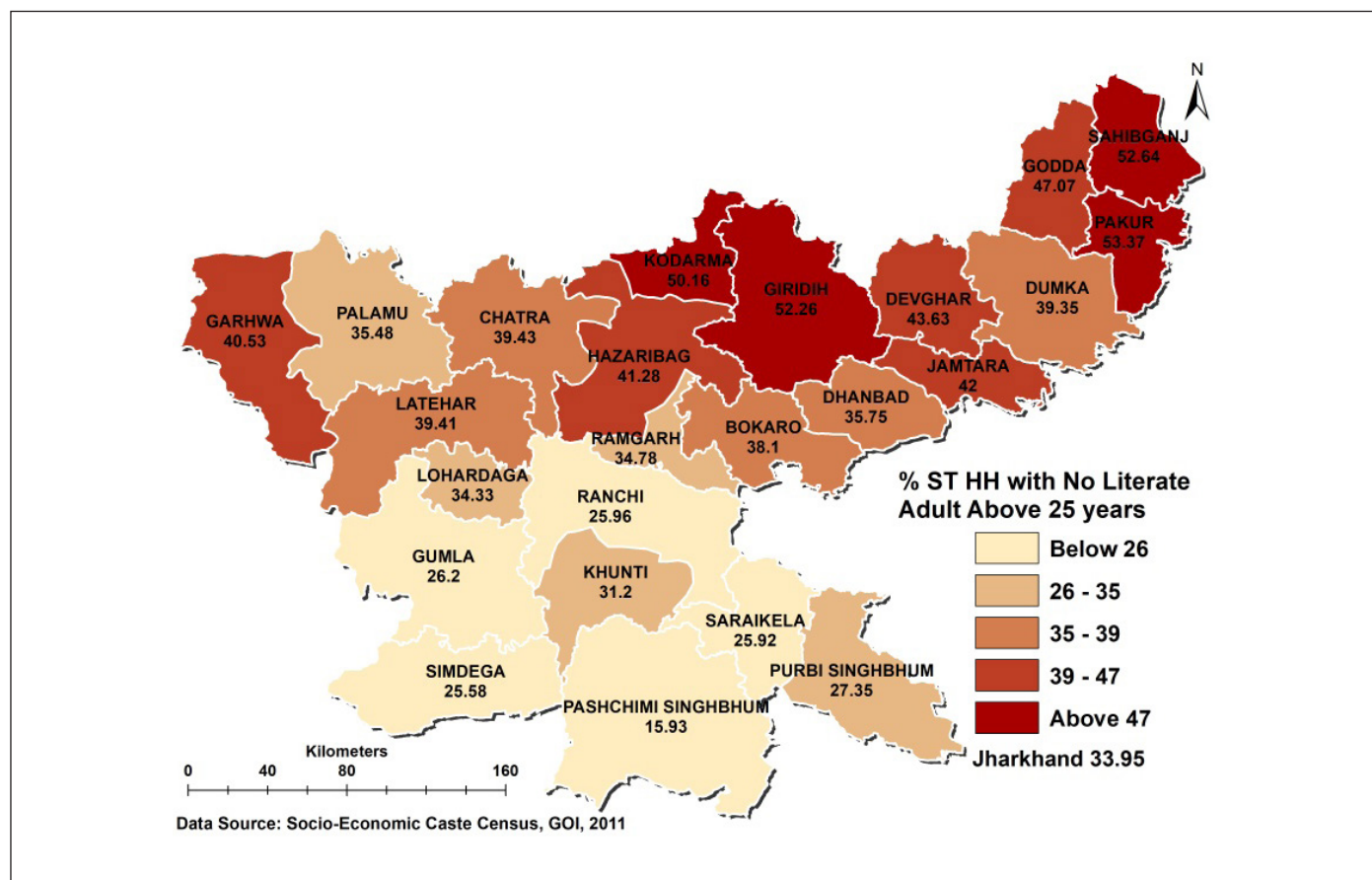
In Jharkhand, 41 per cent rural SC households have adults above 25 years with no literacy. Chatra has the highest proportion of SC households with non-literate adults followed by Latehar. On the other hand, Paschimi Singhbhum district had the lowest proportion of SC households with non-literate adults.

Map 15.7: Percentage of SC households with No literate adults above 25 years (Rural) (2011) (%)



Source: Compiled using Socio-Economic Caste Census, 2011

Map 15.8: Percentage of ST households with No literate adults above 25 years (Rural) (2011) (%)



Source: Compiled using Socio-Economic Caste Census, 2011

The proportion of rural ST households with no literate adults above 25 years was highest in the district of Pakur followed by Sahibganj. The proportion of ST households with no literate adults in these districts was much higher than the state average of 34 per cent.

Welfare Department, Government of Jharkhand

The Department of Welfare is mandated to work towards the welfare of the most underprivileged sections of the society, namely, the Scheduled Tribes, Scheduled Castes, Backward Classes and Minorities, and bring about an all-round development of these sections.

Welfare Schemes for the Tribal and other vulnerable groups in Jharkhand

The Scheduled Tribes (STs), Scheduled Castes (SCs), Other Backward Classes (OBCs), Religious Minorities, Senior citizens or Aged persons, Differently-abled etc. are considered as the vulnerable or disadvantaged groups of the society in terms of education, health, social security etc. This section seeks to portray a status report of the various schemes initiated by the Central/State Governments which were operational during the year 2017-18 and review their performance.

i. Education-related Welfare Schemes for the Vulnerable Groups:

- **Scholarship:** The Scheduled Tribes (STs), Scheduled Castes (SCs) and Other Backward

Classes (OBCs) have poor educational attainments as well as poor access to educational infrastructures at all educational levels. To encourage their enrolment, the government provides scholarships at Pre-and Post-Matric levels.

- **Pre-Matric Scholarship Scheme:** The objective of the scheme is to ensure continuing school education of all the students belonging to ST/SC/OBC up to class X and reduce dropout. Following is the financial provision under Pre-Matric Scholarship Scheme.

Table 15.6: Financial provision under Pre-Matric Scholarship Scheme

| Category of Classes | Hosteler (Amount in Rs. Per month) | Day Scholar (Amount in Rs. Per month) | Duration |
|------------------------|------------------------------------|---------------------------------------|-----------|
| Primary (Class I – IV) | 150 | 50 | 10 months |
| Middle (Class V – VI) | 150 | 100 | 10 months |
| High (Class VII – X) | 200 | 150 | 10 months |

Source: Department of Welfare, Government of Jharkhand

- **Post-Matric Scholarship Scheme:** The scholarship is introduced to encourage and enable the students to avail opportunities for higher and technical education thereby gradually increasing the Gross Enrolment Ratio (GER) at par with national average. The financial assistance grant helps the students belonging to ST/SC/OBC to maintain the continuum up to higher education within and outside state and have better career prospects.
- **Merit cum Means Scholarship:** The scholarship is offered to students from the minority communities in the technical institutions. The students whose family income is (or less than) Rs 2.5 lakh per annum are eligible to avail this scholarship. Scholarship is provided for education in professional & technical colleges. In total 1525 and 1596 scholarships were renewed in 2016-17 and 2017-18 respectively. The total number of fresh scholarship applied in 2016-17 and 2017-18 was 3901 and 2817.
- **Reimbursement of examination fees:** This is a state initiated scheme aimed to promote education among the students of the deprived communities of ST, SC and OBC. They are exempted from the examination fees in matriculate and Intermediate examinations conducted by the Jharkhand Academic Council. This encourages the students to continue their schooling, who would have otherwise dropped out due to their inability to pay the examination fees. They are exempted from paying Rs. 125 in matriculation and Rs. 175 in intermediate level.
- **Cycle Distribution Scheme:** The scheme aims to provide an incentive of Rs. 3000/- through Aadhar-enabled Direct Benefit Transfer (DBT) for cycle to the students belonging to ST/SC/OBC/Minority of class VIII so as to ensure transition from middle school to secondary school thereby reducing dropout rate. The details of students incentivized under scholarship and cycle distribution scheme is given in Table 15.7.

Table 15.7: Number of students incentivized under scholarship and cycle distribution Scheme

| Schemes | 2015-16 | 2016-17 | 2017-18* |
|-------------------------|---------|---|--|
| Pre-Matric Scholarship | 724454 | 1211763 | 1869121 |
| Post-Matric Scholarship | 195587 | 260188 | Verifications of institutions done; verification of application submitted by 2.72 Lakh students is completed |
| Cycle Distribution | 233484 | 317700 (including liability of last year) | 257082 |

Source: Department of Welfare, Government of Jharkhand

Note: *As of 30th November 2017; benefits are being given through Aadhar Enabled DBT

- Pahariya Mid-Day Meal Scheme:** The scheme aims to provide the Particularly Vulnerable Tribal Groups (PVTGs) namely *Pahariya* with good education and nutrition. The 32 *Pahariya* schools in the *Santhal Pargana* provide books, copies, stationary and other study material. Under this scheme, nutritious mid-day meals are provided to the students. The scheme provides Rs. 10.90 per meal per child, promoting education and health in the tribal areas of Santhal Pargana.
 - Education Loan Guarantee Scheme:** The scheme aims for alleviating the problem of accessing credit facilities from banks for higher education. The government has launched this scheme to provide guarantee against the provision of education loan through the banks to such students.
- ii. Healthcare related Welfare Schemes for the Vulnerable Groups:**
- Medical Aid:** This scheme provides for assistance to the poor families of ST/SC/OBC for immediate medical help. The District Welfare Officer provides a maximum of Rs. 3000 and Deputy Commissioner provides Rs. 10,000.
 - Pahariya Health Scheme:** The health condition among the tribals of *Santhal Pargana* is poor. They often remain excluded and find it difficult to access the medical facilities. This scheme makes medical facilities accessible as well as affordable to them. There are 18 *Pahariya* health-care centres opened in the *Pargana* area by the Welfare Department. The centres provide the facilities of medical checkups, Auxiliary Nurse Midwife (A.N.M.), Male Health Specialists and medicines. A total of Rs. 3,66,392 has been allotted to each medical centre in the *Santhal Pargana*.
 - Rural Hospital:** The ST, SC and other minority groups often live in geographically remote areas, making basic facilities such as health mostly inaccessible. Therefore, the scheme aims to provide health facilities in such rural areas by establishing hospitals with both OPD and IPD. Currently, 9 rural hospitals are functional and aiming to make additional 5 rural hospitals functional in 2018.

iii. Welfare Schemes of Housing for the Vulnerable Groups:

- **Birsa Awas Yojna:** The objective of the scheme is to provide quality housing especially for Particularly Vulnerable Tribal Groups (PVTGs) and comprises of 100% grant for construction of house to the tune of Rs. 1,31,500/- per unit.

iv. Welfare Schemes for Social Security and Social Protection of the Vulnerable Groups:

The STs and SCs are considered vulnerable not just in educational or economic terms, but also because they face immense social discrimination and exploitation. The government implements the following Acts to protect them from the acts of atrocity.

- **ST Pension Scheme:** This scheme provides a monthly pension of Rs. 600 to the 8 tribes: *Asur, Parhaiya, Birhor, Birjia, Korwa, Mal Pahadiya, Sariya Pahariya* and *Sabar*.
- **Prevention of ST/SC Atrocity Act (PoA):** The age-old oppression of SCs and STs by the upper-class people is one of the major reasons for their present social problems. Hence, the Parliament of India in 1989 enacted the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, to prevent atrocities against Scheduled Castes and Scheduled Tribes. The department is committed to strengthen the effective implementation of the act by capacity building and sensitization of concerned officials on a

regular basis. State and district level monitoring cum vigilance committees have been established for quick disposal of compensation claims of affected persons. The department is regularizing the meetings of district level monitoring cum vigilance committees and also trying to set up exclusive courts in selected districts having high incidence of cases under PoA.

- **Saheed Gram Vikas Yojna:** Considering the incredible role of Tribal Martyrs who have fought the Indian War of Independence against British, the department of welfare has worked out a scheme called **SHAHEED GRAM VIKAS YOJNA** to pay tribute to those tribal martyrs. The objective of the scheme is to make the identified villages of Tribal Martyrs as model by provisioning basic amenities like, housing, drinking water, electricity, renovation of memorial/statue of tribal martyrs situated in the parental village and other basic facilities.
- **Forest Right Act, 2006:** The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, is a key piece of forest legislation passed in India on 18 December 2006. It has also been called the Forest Rights Act. The law concerns the rights of forest-dwelling communities to land and other resources, denied to them over decades as a result of the continuance of colonial forest laws in India. The enactment of the “Scheduled Tribes and Other Traditional Dwellers (Recognition of Forest Rights) Act, 2006, popularly called the

Forest Rights Act (FRA)” is a revolutionary step taken by the central government. Forest Rights Act recognizes and vests forest rights in the scheduled tribes and other traditional forest dwellers who have been residing in forests for generations but whose rights could not be recorded. It provides a framework for recording of the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land. Forest Rights Act is a means to address some of the pressing issues affecting livelihood and conservation. In this Act, the recognized rights of forest dwelling Scheduled Tribes and other traditional forest dwellers also include responsibilities for sustainable use, conservation of biodiversity and maintenance of ecological balance for strengthening the conservation regime of the forests while ensuring livelihood and forest security for the forest dwelling Scheduled Tribes and other traditional forest dwellers.

- **Protection of Civil Rights Act, 1955:** The Act aims at better governance and prevention of discrimination against the members of ST and SC at public places. It criminalises discriminatory entry at restaurants, hotels, worship places etc. The Deputy Commissioner is expected to spread awareness through hoardings and street-plays.
- **SCA to TSP/Article 275(1):** The objective of the SCA to TSP/Article 275(1) is to address the regional disparity and bridge the gap between Scheduled Tribe including PVTGs

(ST) population & others by accelerating the development of STs/PVTGs pertaining to education & health services, enhancement of quality of life by providing basic amenities in tribal areas, reduction in poverty and unemployment, creation of productive assets and income generating opportunities etc.

v. Welfare Schemes for Livelihood security among the Vulnerable Groups:

- **Skill Development:** Department of Welfare through its Special Purpose Vehicle namely ***PReJHA Foundation*** is implementing self-sustainable skill development initiatives to provide gainful employment to the marginalized sections of community. Till date, PReJHA Foundation has set up 18 Kalyan Gurukul across Jharkhand, out of which 14 Kalyan Gurukuls are functional. The foundation is also aiming to make the Kaushal Colleges operational in the month of February 2018. The overall aim of this initiative is to ensure skilling of 7500-10000 youth & their gainful employment through Kalyan Gurukul and Kaushal Colleges.
- **Jharkhand Tribal Empowerment & Livelihoods Project (JTELP):** The overall goal of JTELP is to improve the living conditions of tribal people in general and PVTGs in particular. This is sought to be achieved by “organizing and enabling the communities to adopt sustainable and productive natural resource management regimes, adopt market-oriented production systems

and learn the skills and gain the experience of planning and implementing development plans relevant to their villages”. JTELP will seek to foster strong community-based institutions that empower local communities, especially women, introduce productive and sustainable systems of natural resource management and enhance food and nutrition security and cash incomes, respectively, by introducing more productive farming technologies and promoting locally proven production technologies. Taken as a set of interventions the proposed activities begin to build community and ecological resilience to climate change. Several of them were explicitly designed as adaptation responses to climate change. JTELP is being implemented in 1254 villages (having more than 50 per cent ST population) in 30 blocks across 14 TSP districts of Jharkhand.

vi. Welfare Schemes for Reduction of Poverty among the Vulnerable Groups:

- **Targeting the Hardcore Poor Project:** Department of Welfare in collaboration with Abdul Latif Jameel Poverty Action Lab (J-PAL) South Asia and Bandhan-Konnagar, has rolled out the THP programs with an aim to graduate 2,000 of the poorest of the poor women headed households out of poverty in Dumka (Dumka Sadar & Masalia block) and West Singhbhum (Tonto & Jhinkpani block). The project aims to graduate ST and PVTG households out of extreme poverty focusing on asset transfer, capacity building,

regular coaching/mentorship with a tune of Rs. 27,000 per household and support of a defined 24-month program that includes technical and self-employment skills training. In 2018-19, the department has provisioned adequate budgetary support to integrate Targeting the Hardcore Poor Approach in the implementation of Jharkhand Tribal Empowerment & Livelihoods Project (JTELP). As part of this integration, 5000 PVTGs families are to be covered over a period of 4 years. The objective of this project is to graduate these families out of extreme poverty and vulnerabilities.

- **National Family Benefit Scheme:** This scheme aims to reduce poverty among the BPL families whose primary earner has died. It prevents the families from slipping into poverty, by providing a sum of Rs. 20,000.

vii. Welfare Schemes for the Aged Persons/Senior Citizens:

- **Schools, hostels, old-age homes:** The poor, old, weak, disadvantageous, widows, orphans, differently-abled are to be cared for by providing them old-age homes, hospitals, remand homes, children and women homes, and working women hostels.
- **State Pension scheme for HIV/AIDS Affected persons:** The persons affected with HIV/AIDS are socially dejected which often results in less economic opportunities. Therefore, the scheme

provides monthly Rs. 600 to the affected persons. 1434 persons have been benefitted from this scheme in 2017.

- **State Social Security Pension Scheme:** The scheme is for the welfare of the disadvantaged groups such as widows, differently-abled, people freed from bonded labour and other weak groups. Persons belonging to such groups who are above the age of 60 can avail the benefits of the scheme. They are provided with financial assistance of Rs. 600 per month. In 2015, 1,25,846 persons were benefitted from this scheme. The number of the beneficiaries increased to 2,76,733 in 2017.
- **Indira Gandhi National Old Age Pension Scheme:** A monthly pension of Rs. 600 is given to the persons who are 60 years or above with a maximum income of Rs. 7995 in rural areas and Rs. 9974 in urban areas. In 2015, 7,22,053 persons benefitted from the scheme. The number of the beneficiaries has increased to 9,04,270 in 2017. Also, new old age homes have been established in Deoghar, Pakur and Godda. A proposal of 100-beds old age homes has been made in Ranchi, Saraikela and Jamtara. The first part of the construction of 50-beds old age home has been initiated. An “After Care Home” has been inaugurated in Dumka.
- **Indira Gandhi National Widow Pension Scheme:** The scheme was implemented on the recommendations of the Tendulkar Committee. A monthly pension of Rs. 600 can be availed by

the widows between the age group 40-79 years. The BPL widows are covered under this scheme.

- **State Widow Pension Scheme:** It is a state-initiated scheme which provides a pension of Rs. 600 per month to the widows above the age of 18 years. The total number of beneficiaries in 2017 was 1,06,828 widows.
- **Employees State Insurance Scheme:** The beneficiaries are the workers of the organized sector which employs a minimum of 10 workers. The workers whose monthly income is or less than Rs. 15,000 can avail the benefits of the scheme. It provides health insurance.

viii. Welfare Schemes for the Differently-abled Persons:

- **Differently-abled Welfare Scheme:** The differently abled, intellectually, visually or physically challenged can avail the benefits of this scheme. The scheme provides them appropriate technological assistance, organizes special workshops and implements measures for their social and economic inclusion.
- **Education** is encouraged among the differently-abled by providing them scholarships. The **Scholarship for the Differently-abled** provides scholarships to children in schools and colleges. Further, the scheme aims to promote education by providing **hostels for the differently-abled**. The hostels will be provided to the school and college going students, who are affected by different disabilities.

- Indira Gandhi National Disability Pension Scheme:** The poor differently-abled persons whose income in rural areas is less than Rs. 7996 or Rs. 9975 in urban areas per year, and is affected by 80 per cent disability is awarded a monthly pension of Rs. 600. In 2015, the number of persons who benefitted from the scheme was 17,147. The number of the beneficiaries increased to 19,953 in 2017.
- District Disability Rehabilitation Centre:** A centre is to be established in each state to provide assistance and advice to the differently-abled

persons. The centre has been established in 6 districts of Jharkhand, namely, Ranchi, Dumka, Palamu, Hazaribagh, Jamshedpur and Dhanbad. The centre especially assists in rehabilitation, awareness programs and informing about the various welfare schemes. A **Composite Rehabilitation Centre** will be launched in Ranchi for the education of the differently abled children. **UDID program** has been launched to provide them with disability recognition identity cards. These cards facilitate the procurement of benefits of welfare schemes.

Table 15.8: Progress in the Social Welfare Schemes (2015 and 2017)

| Social Welfare Schemes | Number of Beneficiaries | |
|--|-------------------------|--------|
| | 2015 | 2017 |
| State Social Security Pension | 125846 | 276733 |
| Swami Vivekananda Differently-able Self-Reliant Encouragement Scheme | - | 167241 |
| Indira Gandhi National Differently-abled Pension Scheme | 17147 | 19953 |
| Indira Gandhi National Old Age Pension Scheme | 722053 | 904270 |
| State Widow's Honour Pension Scheme | - | 106828 |
| Pension Scheme for the HIV/AIDS persons | - | 1434 |

Source: Department of Welfare, Government of Jharkhand

- Swami Vivekanand Self-reliance Encouragement Scheme for Differently Abled:** This is a state-initiated scheme which provides monthly Rs. 600 to the differently abled persons. The scheme covers persons from different categories to make most differently abled self-reliant. In total, 1,67,241 persons have benefitted from the scheme in 2017.
- Minority Committee:** A Jharkhand Minority Committee has been formed for the welfare of the religious minority community. In 2016, 2854 persons have been sent to the *Haz* pilgrimage. The number rose to 3133 *Haz* pilgrims in 2017. Scholarship applications of 44,396 minority students have been sent to the central government in 2016-17. It has been targeted to provide scholarships to 90570 students in 2017-18.

Conclusion:

The status of underprivileged in Jharkhand is not very impressive. The state government has implemented various schemes to improve the status of SC/ST and other underprivileged groups. However, these efforts have not succeeded in improving the status of underprivileged across the state. A large proportion of SCs/STs in rural Jharkhand continue to live with a

monthly income below Rs. 5000. Most importantly, despite various education-oriented schemes implemented by the government, the proportion of illiterates among the SC and ST community in rural Jharkhand is high. Therefore, in order to improve the development indicators of the underprivileged groups, the State requires focusing on specific domains of development.

XVI

**NATURAL
RESOURCES:
FOREST, WATER
AND MINERAL
RESOURCES**



The State of Jharkhand, which occupies the Chota Nagpur Plateau, has been blessed abundantly by Mother Nature wherein the natural resources comprising of forests and wildlife, water and mineral resources are ubiquitously prevalent across the length and breadth of the state. While the densely vegetated plateaus are home to a wide range of flora and fauna, they are also extremely rich in mineral wealth. The three major natural resources, forest, water and mineral resources have been dealt in greater details here as they are of immense significance to the economy of the state which relies to a great extent on the '*jal, jungle and jameen*'.

Apart from the economy, these resources, especially the forests are an integral part of the culture and livelihood of the indigenous population residing in this part of the country. The 'sacred groves' are their places of worship and the minor forest produce from these jungles are a major source of their livelihood. The natural and cultural habitat of the tribes in this region revolves entirely around these forests and water bodies.

Forest Resources of Jharkhand

Forests are an integral part of the natural resources that have been bestowed upon the state of Jharkhand. They play a significant role in managing the environmental and ecological balance. The forest resources of Jharkhand are abundantly distributed over the Chota Nagpur Plateau region and constitutes a critical lifeline for the indigenous forest dwellers, especially the particularly vulnerable tribal groups, by offering them sustenance and livelihood. The state of Jharkhand has a diverse variety of forest cover consisting of Dry peninsular Sal Forest, Northern dry mixed Deciduous Forest, Moist Peninsular Sal Forest, Dry Deciduous Scrubs and Dry bamboo brake. According to the India State of Forest Report

(ISFR) 2015, the Dry Peninsular Sal forest and Dry Mixed Deciduous Forest in Jharkhand comprised of 45.03 per cent and 41.21 per cent respectively of the total forest area. While the major and minor forest produce and forestry-based products i.e. timber, NTFPs, etc. obtained altogether contribute significantly to the economy of the state, the forests play a vital role in safeguarding the environment through carbon sequestration and watershed management. Due to the growing population in the state, there is tremendous pressure on the natural resources including the forests and agricultural land for the purpose of development activities such as industrial, commercial and residential requirements. In order to conserve the biodiversity, the Jharkhand Forest Department actively engages in matters relating to forests and forestry, which also includes protecting and conserving forest & wildlife resources of Jharkhand through scientific forest management practices within the realm of prevailing policies, acts, and rules.

Area under Forests in Jharkhand

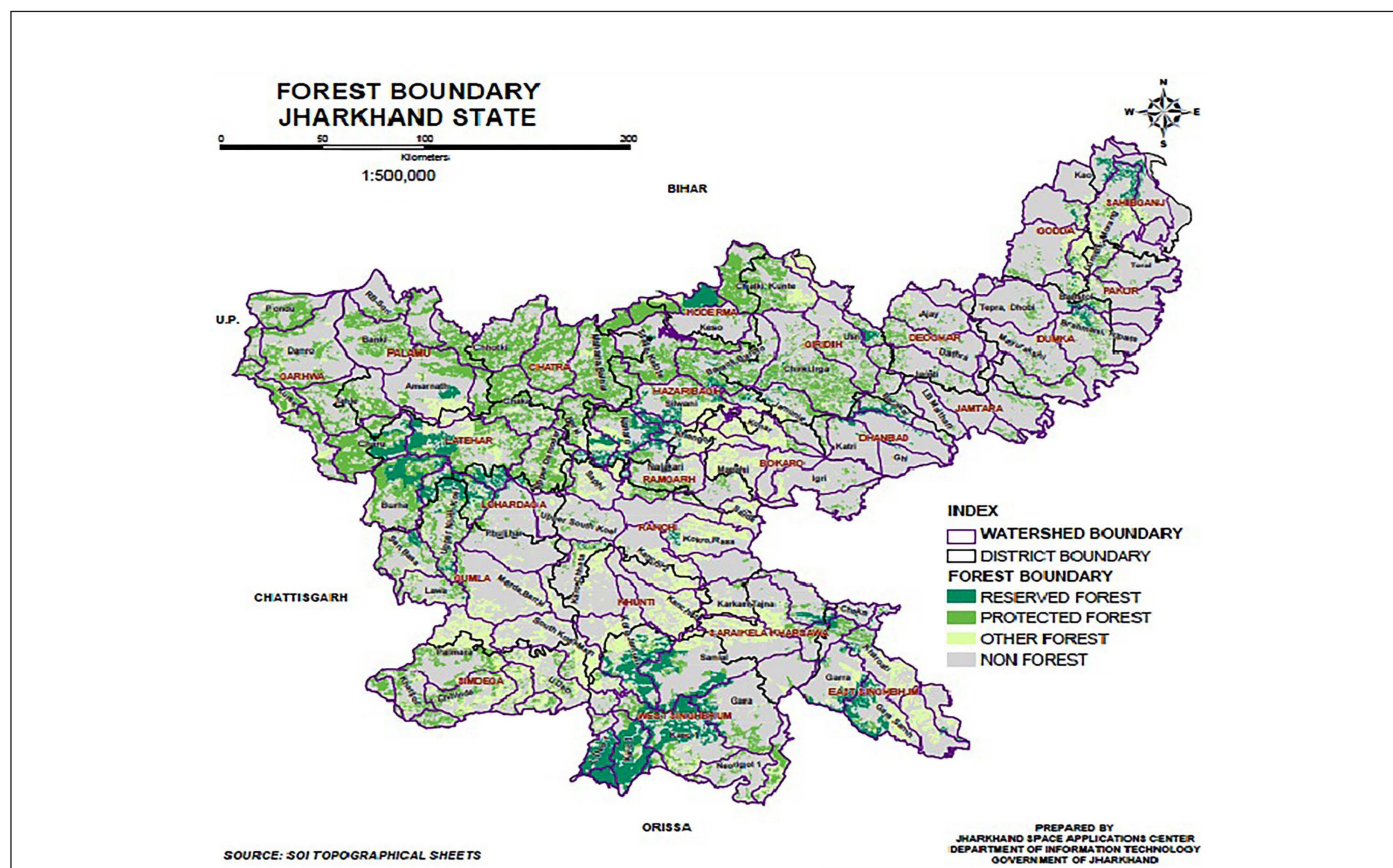
The Recorded Forest Area (RFA) of the state of Jharkhand as reported by the Annual Report, 2016-17, Department of Forest, Environment and Climate Change and Government of Jharkhand was 23,605 square kilometres which covered 29.61 per cent of the total geographical area of Jharkhand. This amounts to 3.06 per cent of the total forest area of the country. The Reserved Forest (RF) in Jharkhand constitutes 4,387 sq. km which is 18.5 per cent of the total RFA, the Protected Forests (PF) constitutes 19,185 sq. km which is 81.28 per cent of the total RFA and Unclassified Forests constitutes 33 sq. km which is 0.14 per cent of the total RFA of the state (Table: 16.1). The growing stock in Recorded Forest Area is 122.00 million cum.

Table: 16.1 Classification of Forest and its Coverage

| Recorded Forest | Area (km ²) | Percentage |
|---------------------|-------------------------|--------------|
| Reserved Forest | 4,387.00 | 18.58 |
| Protected Forest | 19,185.00 | 81.28 |
| Unclassified Forest | 33.00 | 0.14 |
| Total | 23,605.00 | 29.61 |

Source: Annual Report, 2016-17, Department of Forest, Environment and Climate Change, Government of Jharkhand

Map: 16.1 Classification of Forests and Forest Boundaries in Jharkhand



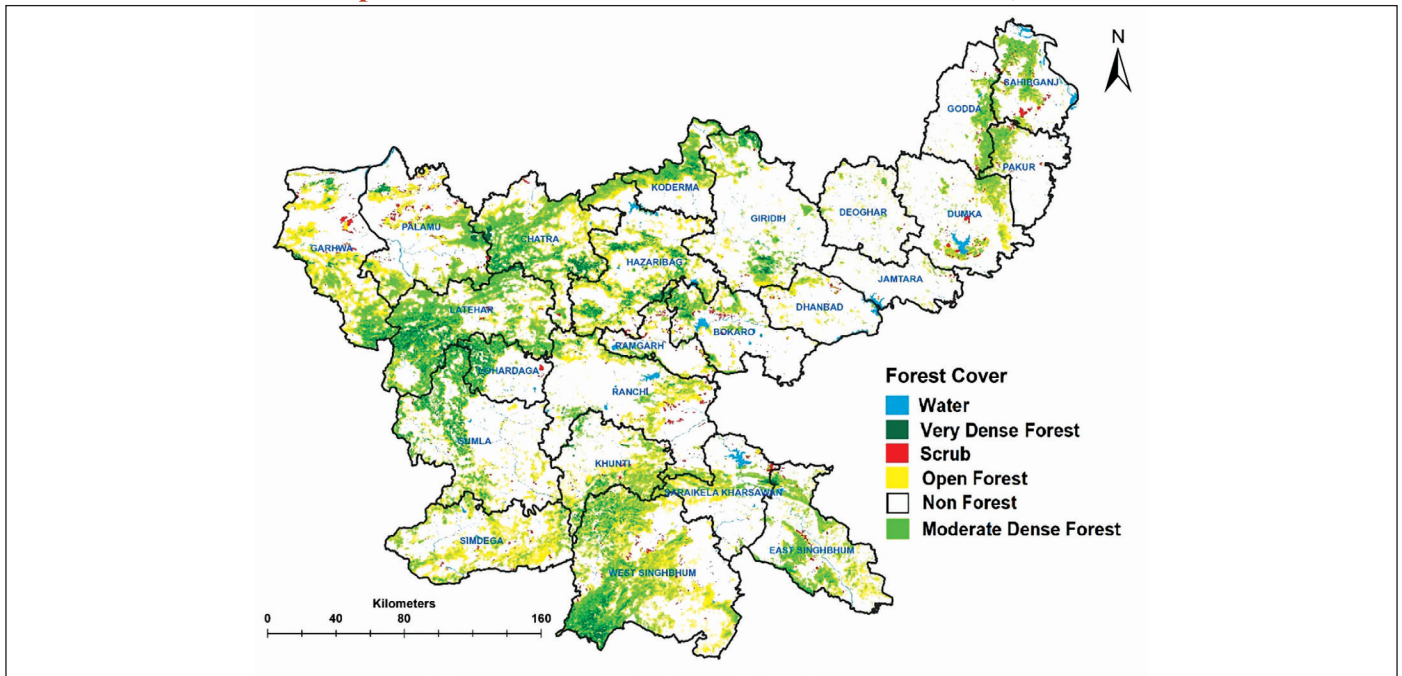
Source: Jharkhand Space Applications Centre (JSAC), Government of Jharkhand

Forest Cover in Jharkhand

The estimates of Forest Survey of India (FSI, 2015) on the basis of satellite data shows that the Forest Cover and Tree cover in the state of Jharkhand encompasses a total area of 23,478 sq. km and 2,783 sq. km respectively, which is 29.45 per cent and 3.49 per cent of the state’s total geographic area. Altogether the total area of Forest and Tree cover

in Jharkhand is 26,261 sq. km, which cover 32.94 per cent of the total geographical area of Jharkhand. In terms of forest canopy density classes, 2,588 sq. km area of Jharkhand comes under the Very Dense Forest (VDF) cover; 9,663 sq. km area comes under the Moderately Dense Forest (MDF) cover and 11,227 sq. km area comes under the Open Forest (OF) cover.

Map: 16.2 District-wise Forest Cover in Jharkhand, 2015



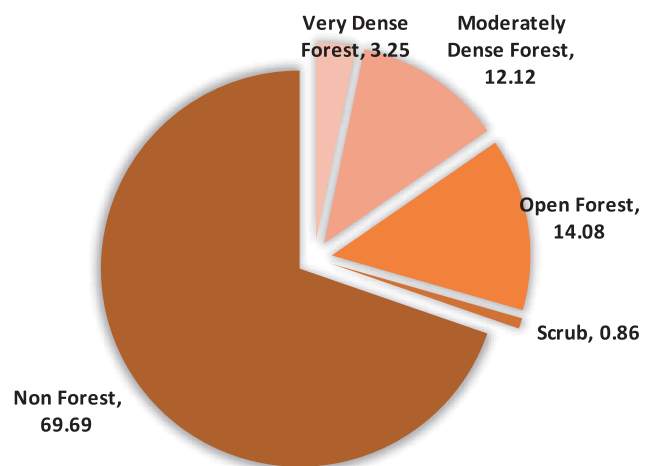
Source: Adapted from India State of Forest Report (ISFR), 2015, Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

The share of the state vis-à-vis the country in terms of the area under total forest cover has increased from 3.33 per cent to 3.35 per cent during 2003 to 2015 (Table 16.2). The assessment of forest cover, categorized on the basis of forest canopy density, shows that the state has 11.02 per cent of Very Dense Forest (forest canopy density more than 70 per cent), 41.16 per cent of Moderately Dense Forest (forest canopy density 40-70 per cent) and 47.82 per cent of Open Forest (forest canopy density 10-40 per cent) (Table 16.3).

Jharkhand has witnessed an increase in the total area under forest cover which rose from 22,569 sq. km during 2003 to 23,478 sq. km as estimated in 2015, thereby marking a total areal increase of 947 sq. km during this period. The percentage of area under forest coverage to a total geographical area of the state has increased from 28.3 per cent in 2001 to 29.48 per cent in 2015. The area under Very Dense Forest cover has increased from 2544 sq. km in 2003 to 2588 sq. km in 2015, but in terms of the proportion of VDF cover to the total forest area, Jharkhand has

witnessed a slight decline from 11.42 per cent in 2003 to 11.02 per cent in 2015. The area under Open Forest cover has undergone an increase from 10949 sq. km. to 11227 sq. km. during 2003 to 2015, and the proportion of Open Forest to total forest area has also witnessed an increase from 45.04 per cent in 2003 to 47.82 per cent in 2015.

Figure: 16.1 Forest Cover by forest canopy density classes in Jharkhand, 2015



Source: India State of Forest Report (ISFR), 2015, Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

Table: 16.2 Total Forest Cover in Jharkhand and India, 2003 to 2015

| State/India | Total Forest Cover (in Sq. Km) | | | | | |
|---|--------------------------------|--------|--------|--------|--------|--------|
| | 2003 | 2005 | 2009 | 2011 | 2013 | 2015 |
| Jharkhand | 22569 | 22722 | 22896 | 22977 | 23473 | 23478 |
| India | 677816 | 690171 | 692394 | 692027 | 697898 | 701673 |
| <i>Percentage forest cover of Jharkhand vis-a vis India</i> | 3.33 | 3.29 | 3.31 | 3.32 | 3.36 | 3.35 |

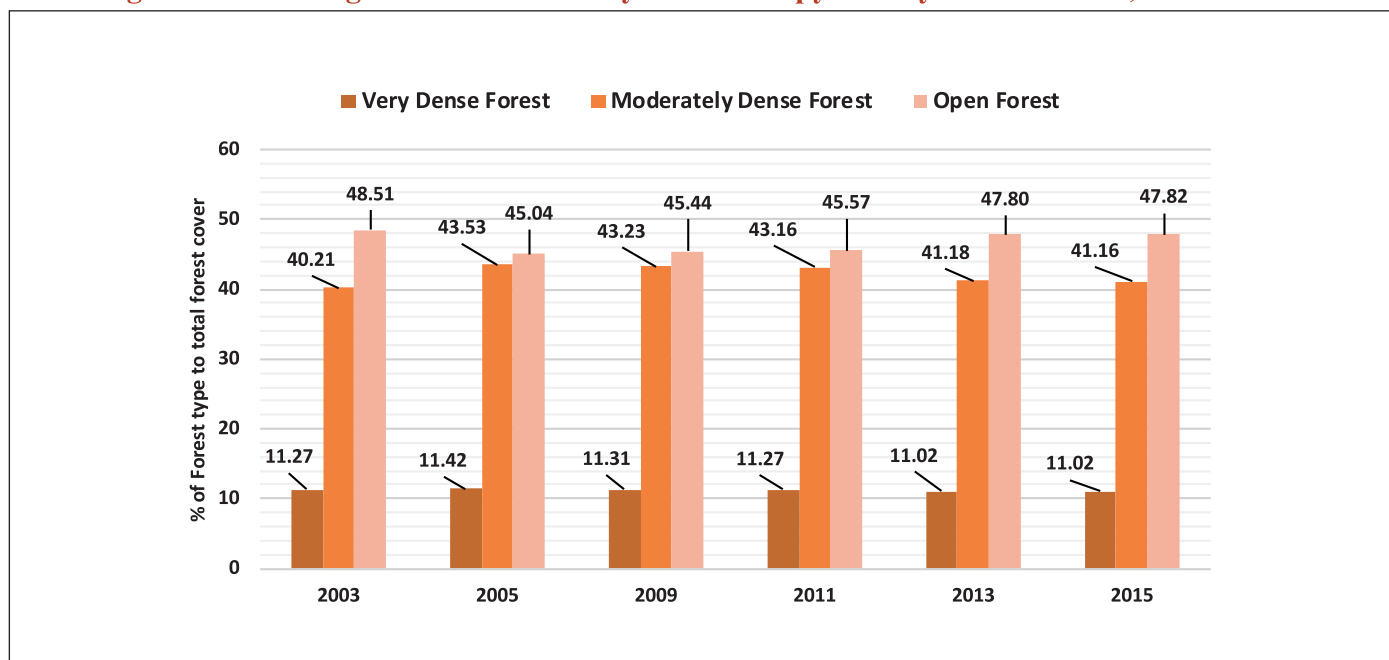
Source: India State of Forest Reports (ISFR), Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

Table: 16.3 Area and Proportion of Forest Cover by forest canopy density in Jharkhand, 2003 to 2015

| Year | Forest cover (Sq. Km) | | | | Percentage of Geographical Area | % Forest type to total Forest | | |
|------|-----------------------|-------------------------|-------------|-------|---------------------------------|-------------------------------|-------------------------|-------------|
| | Very dense forest | Moderately dense forest | Open forest | Total | | Very dense forest | Moderately dense forest | Open forest |
| 2003 | 2544 | 9076 | 10949 | 22569 | 28.31 | 11.27 | 40.21 | 48.51 |
| 2005 | 2595 | 9892 | 10235 | 22722 | 28.5 | 11.42 | 43.53 | 45.04 |
| 2009 | 2590 | 9899 | 10405 | 22896 | 28.72 | 11.31 | 43.23 | 45.44 |
| 2011 | 2590 | 9917 | 10470 | 22977 | 28.82 | 11.27 | 43.16 | 45.57 |
| 2013 | 2587 | 9667 | 11219 | 23473 | 29.45 | 11.02 | 41.18 | 47.80 |
| 2015 | 2588 | 9663 | 11227 | 23478 | 29.48 | 11.02 | 41.16 | 47.82 |

Source: India State of Forest Reports (ISFR), Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

Figure: 16.2 Change in Forest Cover by forest canopy density in Jharkhand, 2003 to 2015



Source: India State of Forest Reports (ISFR), Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

Changes in Forest Cover of Jharkhand

The state of Jharkhand has effectively protected its forest cover through the plantation and conserving activities initiated by the state government. Jharkhand stands very close to achieving the required 33 per cent benchmark of the proportion of forest area to total geographical area as per the National Forest policy, 1998.

Since the forest-based products, both major and minor, mainly timber and fuelwood have domestic as well as commercial viability and demand, it is imperative to evaluate the forest cover of the state both spatially and temporally in order to assess the forest resources. The evaluation of the forest cover, according to the ISFR 2015, reveals that the

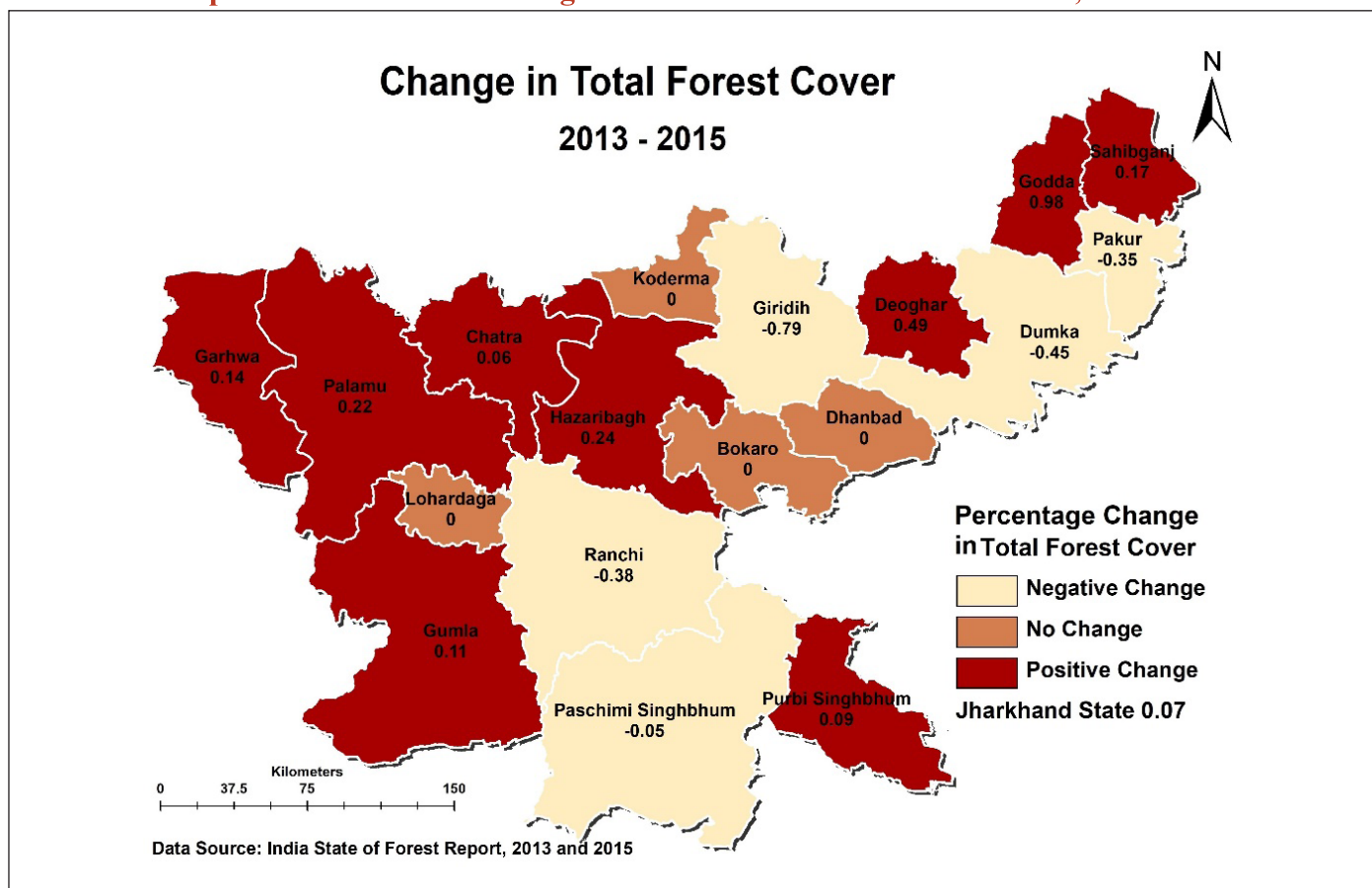
percentage of the total area under forest cover out of the total geographical area of the state has increased slightly from 29.45 per cent in 2013 to 29.48 per cent during 2015. The percentage change in total forest cover during 2013 and 2015 has been an increase of 0.02 per cent. During the same period, a positive change in total forest cover has been observed in nine districts of Jharkhand i.e. Garhwa, Palamu, Chatra, Hazaribagh, Gumla, Purbi Singhbhum, Deoghar, Godda, and Sahibganj. Wherein, a decline or negative change in total forest cover has been witnessed in the five districts of Jharkhand i.e. Ranchi, Pashchimi Singhbhum, Giridih, Dumka, and Pakur. The other districts of Lohardaga, Bokaro, Koderma, and Dhanbad showed no percentage change in forest cover during 2013 to 2015.

Table: 16.4 Forest Cover Change Matrix of Jharkhand, 2013 to 2015

| Canopy Cover Classes | 2015 Assessment | | | | | Total ISFR 2013 |
|-------------------------|-----------------|--------------|---------------|------------|---------------|-----------------|
| | VDF | MDF | OF | Scrub | NF | |
| Very Dense Forest | 2,587 | 0 | 0 | 0 | 0 | 2,587 |
| Moderately Dense Forest | 1 | 9,658 | 4 | 2 | 2 | 9,667 |
| Open Forest | 0 | 5 | 11,205 | 8 | 1 | 11,219 |
| Scrub | 0 | 0 | 12 | 657 | 1 | 670 |
| Non-Forest | 0 | 0 | 6 | 18 | 55,547 | 55,571 |
| Total ISFR 2015 | 2,588 | 9,663 | 11,227 | 685 | 55,551 | 79,714 |
| Net Change | 1 | -4 | 8 | 15 | -20 | |

Source: India State of Forest Report (ISFR), 2015, Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

Map: 16.3 District-wise Change in Total Forest Cover in Jharkhand, 2013-2015

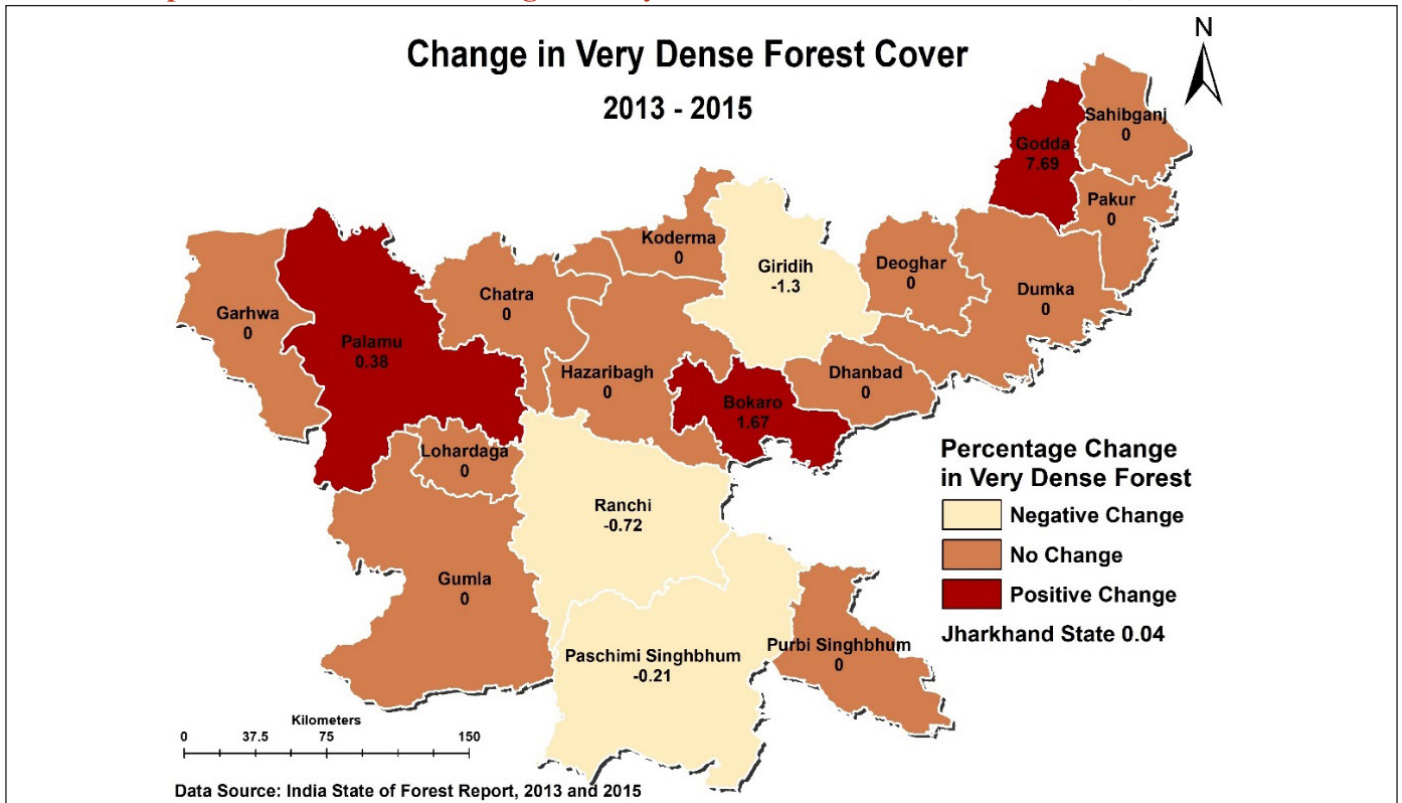


Source: Compiled from India State of Forest Report (ISFR), 2013 and 2015, Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

The proportion of area under Very Dense Forest cover to the total area under forest in Jharkhand was 11.021 per cent during 2015 and during 2013 it was 11.023 per cent. The percentage change in this category of forest cover during 2013-15 has been an increase of 0.04 per cent. During the same period, a positive change in the Very Dense Forest cover category has been observed in three districts of Jharkhand i.e. Bokaro Palamu, and Godda. Whereas, a negative change in this category of the forest has been observed in the three districts of Jharkhand i.e. Ranchi, Paschimi Singhbhum, and Giridih. The other twelve districts i.e. Lohardaga, Koderma, Dhanbad, Pakur, Gumla, Deoghar, Dumka, Chatra, Garhwa, Hazaribagh, Purbi Singhbhum, and Sahibganj witnessed no change during 2013 and 2015.

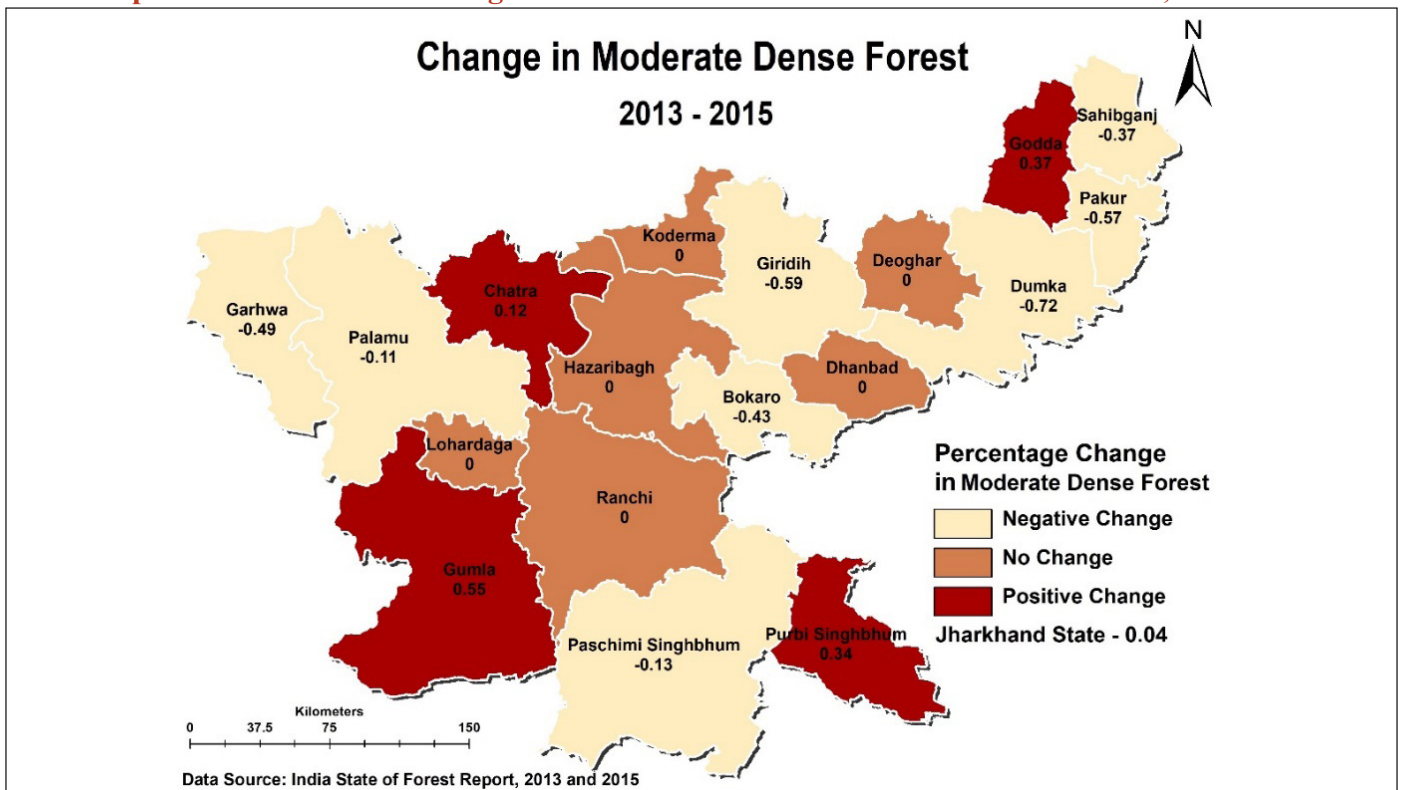
The proportion of area under moderately dense forest cover to the total forest area was 41.16 per cent during 2015 and during 2013 it was 41.18 per cent. The percentage change in this category of forest cover during 2013-15 has been a negative change by 0.04 per cent. During the same period, a positive change in moderately dense forest cover has been marked in four districts of Jharkhand, i.e. Chatra, Gumla, Purbi Singhbhum, and Godda while negative change under this category of forest has been observed in Pakur, Dumka, Bokaro, Giridih, Palamu, Garhwa, Pashchimi Singhbhum, and Sahibganj. The remaining districts of Lohardaga, Ranchi, Hazaribagh, Koderma, Deoghar, and Dhanbad have witnessed no change during 2013 and 2015.

Map: 16.4 District-wise Change in Very Dense Forest Cover in Jharkhand, 2013-2015



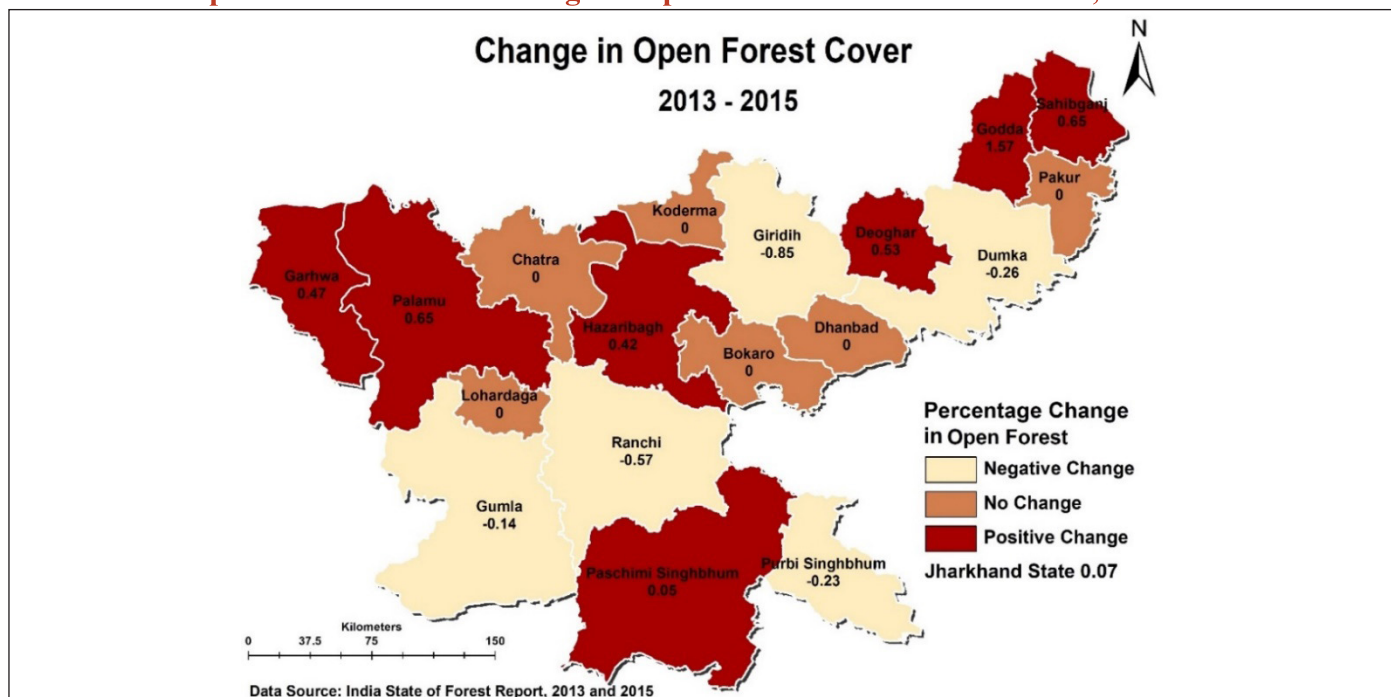
Source: Compiled from India State of Forest Report (ISFR), 2013 and 2015, Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

Map: 16.5 District-wise Change in Moderate Dense Forest Cover in Jharkhand, 2013-2015



Source: Compiled from India State of Forest Report (ISFR), 2013 and 2015, Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

Map: 16.6 District-wise Change in Open Forest Cover in Jharkhand, 2013-2015



Source: Compiled from India State of Forest Report (ISFR), 2013 and 2015, Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

The proportion of area under Open Forest cover to total forest area was 47.80 per cent in 2013 which increased to 47.82 per cent in 2015 thereby marking an increase of 0.07 per cent. During this period a positive change in area under open forest cover category has been observed in seven districts of Jharkhand i.e. Garhwa, Palamu, Paschimi Singhbhum, Hazaribagh, Deoghar, Sahibganj, and Godda. Whereas a negative change has been witnessed in the five districts of Jharkhand i.e. Gumla, Ranchi, Purbi Singhbhum, Dumka, and Giridih. The remaining six districts, i.e. Chatra, Lohardaga, Bokaro, Dhanbad, Koderma, and Pakur have undergone no change during 2013-15.

The Vulnerability of Forest Resources to Forest Fire in Jharkhand

The State of Jharkhand has been gifted with immense forest resources which are constantly under threat from various natural as well as anthropogenic factors. Forest fires are one of the major threats

which render the forest resources vulnerable to destruction. The occurrence of major and minor forest fires throughout the year have consumed vast tracts of prevailing forest area which has also escalated soil degradation. The general causes of a forest fire can be both natural and anthropogenic but most forest fire incidences are generally associated with the anthropogenic factors. In many cases, the vegetation and grasses in the form of undergrowth in the forest are burned down by people so that fresh fodder for their livestock may grow. Forest fires are also mistakably caused by people while collecting forest produce. In Jharkhand, the natural factor which mostly causes forest fires are the high wind condition during the summer months which results in collision of the bunches of dry bamboos in the areas covered with bamboo mixed forest type¹. The deciduous forest type is generally very prone to forest fire and in Jharkhand, such type of forest constitutes 41.21 per cent which renders the forest

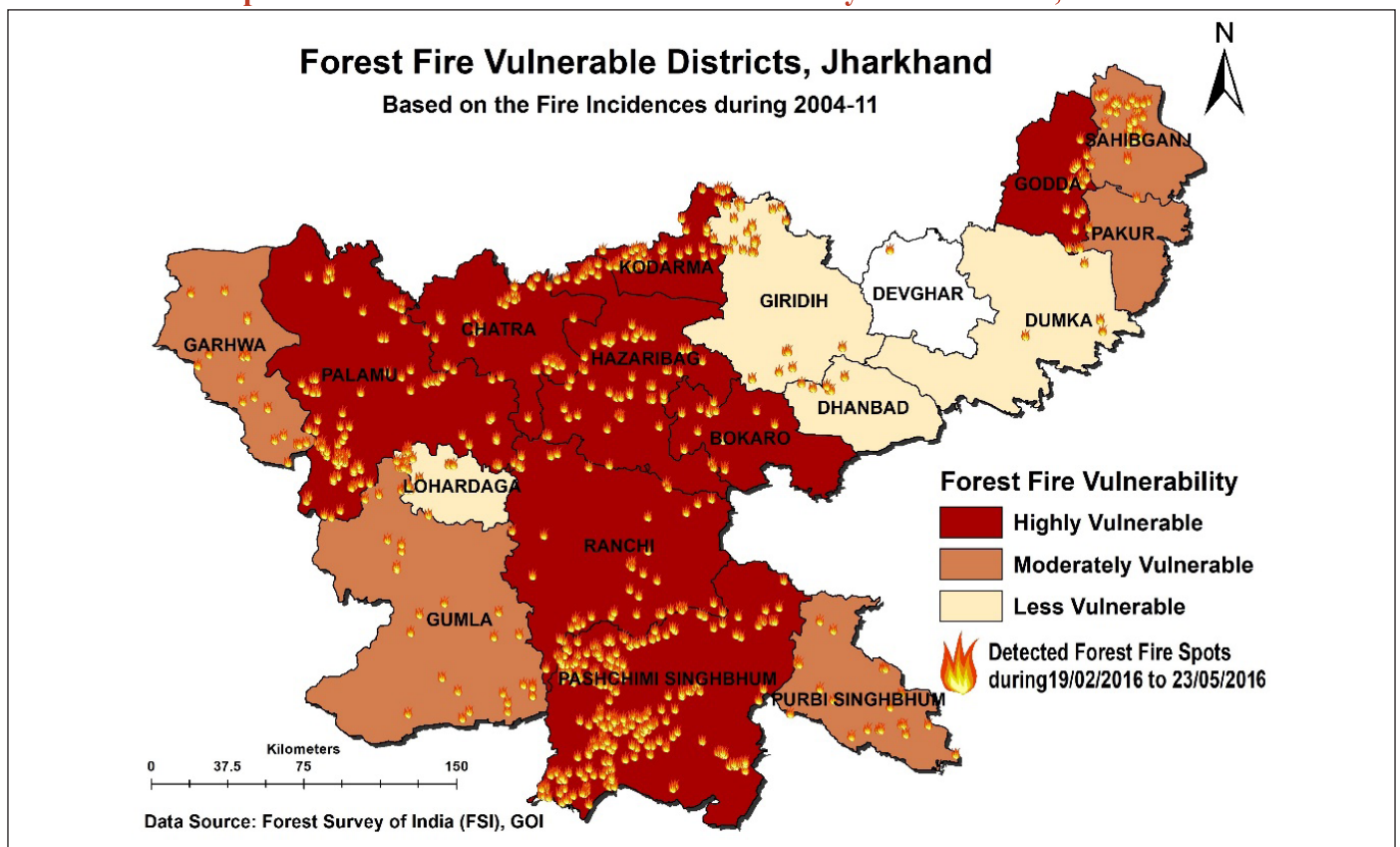
1 Ahmad, F., & Goparaju, L. (2017). Geospatial Assessment of Forest Fires in Jharkhand (India). Indian Journal of Science and Technology, 10(21).

resources in the state vulnerable to forest fires.

The summer season is the most vulnerable to forest fire and its spread. Most of the forest fire incidents which occurred in Jharkhand were observed during the 1st week of March to 3rd week of April. According to the regionalization of forest fire zones in Jharkhand as per the FSI report, the districts have been classified into three categories according to their levels of vulnerability viz. highly vulnerable, moderately vulnerable and less vulnerable. The district wise

information is based on the fire incidences reported during 2004-11. There were eight districts i.e. Palamu, Chatra, Koderma, Hazaribagh, Bokaro, Ranchi, Pashchimi Singhbhum, and Godda, which were categorized as highly vulnerable to forest fire. The districts which were categorized as moderately vulnerable to forest fire were Garhwa, Gumla, Purbi Singhbhum, Pakur, and Sahibganj. The districts which were categorized as less vulnerable to forest fire were Giridih, Dhanbad, and Dumka. No data was available for Deoghar and Lohardaga.

Map: 16.7 District-wise Forest Fire Vulnerability in Jharkhand, 2004-2011



Source: Compiled from *Vulnerability of India's Forests to Fires*, 2012 Report, Forest Survey of India, Ministry of Environment, Forest & Climate Change, Government of India

According to the Forest Survey of India (FSI), which records forest fire information based on the satellite data, the maximum frequency of forest fire occurrences was observed in the Pashchimi Singhbhum district where the satellite detected 357 incidences of forest fires between February to May 2016. According to ISFR 2015, about 39 per cent of

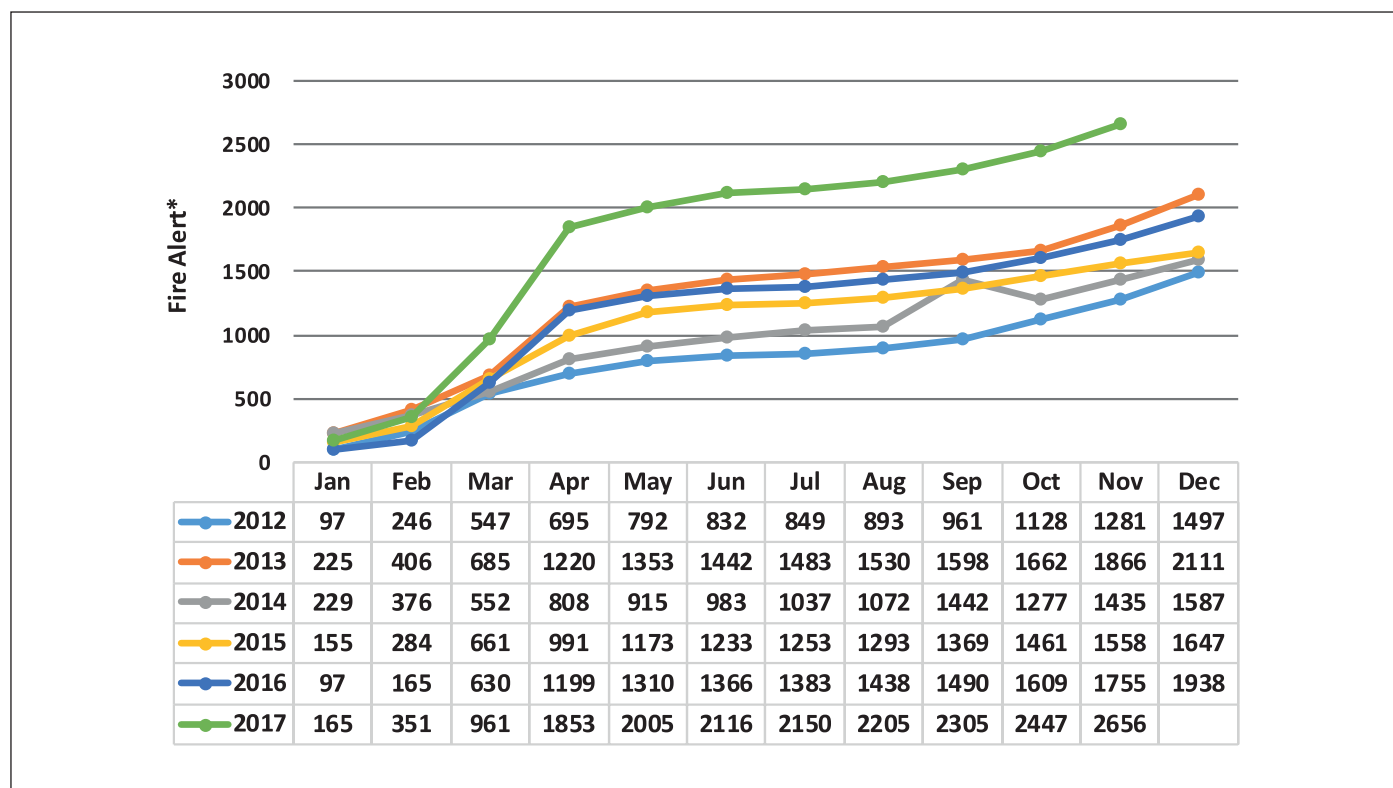
the total geographical area of Pashchimi Singhbhum district was under forest cover. It constitutes about 17 per cent of Jharkhand's total forest cover which is the highest among all districts of Jharkhand. The forest fire threat in this district is a major concern as the extensive forest cover in this part of the state, which is known for its distinctive ecosystem

of Sal forest in the Saranda hill region, is the most vulnerable to destruction which may result in loss of biodiversity.

The NASA based Fire Information for Resource Management System (FIRMS) for Active Fire detection is based on the MODIS satellite that has approximately 1km resolution with effective

algorithm to detect true fires alert. The fire alert data for Jharkhand obtained from FIRMS for the period of 2012 to November 2017 reveal an increasing trend of occurrences of fire in the state over the period of time. It can be further observed that March to April is the crucial period of fire occurrences in Jharkhand. The highest number of fire occurrences have been recorded during the year 2017.

Figure: 16.3 Fire Alerts in Jharkhand, 2012 to 2017 (up to November 2017)



*based on satellite data MODIS

Source: NASA Fire Information for Resource Management (FIRMS) Active Fire Data

Therefore, the vulnerability of the forests due to the forest fires has become a looming threat to the forest resources of Jharkhand. Thus, it's imperative for the state government to conserve and manage the existing forest cover and replenish the lost green cover by implementing innovative afforestation programmes. In the state, the Department of Forest under the guidance of Ministry of Forest and Environment plans and implements a number of programmes that lead to conservation and replenishment of the green cover.

Flagships schemes for Conservation of Forest Resources

The key directive of the Forest Department is to protect, conserve and develop the forests and wildlife of Jharkhand. This will help in establishing the environmental stability and ecological balance. The Department follows the prime objectives of the National Forest Policy, 1988, which envisaged ensuring the environmental stability and maintaining the ecological balance as essential tools for the sustenance of all life forms, human, animal, and

plant. Recently, the Forest Department has launched a scheme i.e. Mukhya Mantri Jan-Van Yojana, which is largely purposed for taking up afforestation in the areas outside forests or Raiyati land (Private land).

Mukhyamantri Jan Van Yojna

Considering the significance of farm forestry or agroforestry in improving and securing the livelihood and income of the rural households as well as expanding the forest cover to the targeted mark of 33 per cent as set by the National Forest Policy, the Jharkhand Forest Department has launched a scheme 'Mukhya Mantri Jan-Van Yojana' to improve the livelihood condition of the rural people. The key objectives of the scheme are to build the forest cover and improve the environmental condition of the state; conserve soil and moisture through different plantation exercises on land outside forests; to expand the tree cover outside the forest area thus reducing the pressure on the existing notified forests; to augment the farm income through farm forestry which will provide a livelihood security and to include individuals in empowering forestry exercises.

To achieve the above objectives for the year 2017-18, an area of approximately 5000 acres was proposed to be taken up on private land for plantation of fruit trees and another equivalent stretch of the area was proposed to be taken up for plantation of trees for timber. So, a total of 800,000 fruit trees (160 per acre) and 22,25,000 timber trees (445 per acre) were proposed to be planted to boost the tree cover outside the forests as well as to ensure livelihood security for the rural populace.

Afforestation & Soil Conservation on Notified Forest Land

The forests get degraded because of different reasons i.e. illicit felling, grazing, fire and so forth.

The degraded forests have stunted tree growth with sufficient rootstocks, which are capable of growing into trees. Such degraded forests are taken up for restoration under this plan, wherein the exiting low-grade natural vegetation is curtailed along with plantation on the vacant areas with indigenous species. It was proposed, during 2017-18, to complete the assigned works under the on-going projects. Under this plan, expanding the plantation of host plants for *Kusumi Lac*, *Rangeeni Lac*, *Tasar silk*, and so on are proposed to supplement the existing stock of trees. According to this scheme, specific afforestation plan on notified forest land has been proposed which includes - rehabilitation of the indigenous forests, soil and land conservation, encouraging the swift growing plants and *Tasar* afforestation. In the financial year 2016-17, a budget of 10891.084 lakh Rupees was sanctioned against which Rs. 4412.29 lakhs were spent until 15th January 2017. Under this scheme, afforestation during the monsoon season was done for the financial year of 2016-17 and the remaining afforestation was in progress. The details about the progress of the project are given in Table 16.5.

During 2016-17, advance work on an area of 10474 Ha was carried out in block plantation and 143,33,122 plants were to be planted during the monsoon season of the year 2017. Moreover, the plantation was completed on 6674.63 Ha for nearly 108,71,348 plants during 2016-17, the first maintenance of which was proposed to be done during 2017-18. The second maintenance is to be carried out on 10031.9 Ha land for nearly 120,19,927 plants. Similarly, in the financial year 2017-18, advance work on nearly 11,896 Ha land was to be taken up under the scheme which amounts to the plantation of nearly 227,35,776 plants which are to be planted under this scheme during the succeeding year.

Table: 16.5 Progress on Afforestation and Soil Conservation on Notified Forest Land in Jharkhand, 2016-17

| Work | Plantation Achievement | | Progress of Advance Work | |
|--|------------------------|--------------------------|--------------------------|---|
| | Area (ha) | Planted plants (numbers) | Area (ha) | Possible number of plants to be planted |
| Soil Conservation and Afforestation (1666 per Ha.) | 1,391 | 23,17,406 | 3,317 | 55,26,122 |
| Restoration of Degraded Forest (1000 per Ha) | 3,196.63 | 31,96,630 | 6,307 | 63,07,000 |
| Plantation Quick Growing Plants (2500 per Ha) | 1,505 | 37,62,500 | 750 | 18,75,000 |
| Lac Plantation (2500 per Ha) | 200 | 5,000 | -- | -- |
| Sisam Plantation (6150 per Ha) | 100 | 6,15,000 | 100 | 6,15,000 |
| Sal plant trial afforestation (1666 per Ha) | 30 | 49,980 | 30 | 49,980 |
| Total | 6,422.63 | 9,946,516 | 10,504 | 143,73,102 |

Source: Department of Forest, Environment and Climate Change, Government of Jharkhand, 2016-17

Afforestation on Land outside Notified forest

This scheme mainly aims to construct a green belt outside the notified forest areas particularly in and around the urban areas. Under this scheme, for the purpose of providing a clean, healthy and comfortable environment for the common citizens, the plantations will be done along the state/ National Highways and other roads such as linear plantation, gabion plantation, and long tree plantation. The institutional premises such as schools, colleges, universities,

hospitals, government offices/institutions, industrial areas, etc. are also to be covered under this scheme. It also aims to incorporate the maintenance/upgradation of parks i.e. Bio-diversity Park, Shri Krishna Park and Raj Bhawan and Nepal House Secretariat, Gardens (Ranchi), Muri Tungri in Ranchi district, Ghorabandha Park (Jamshedpur), Ambedkar Park at Silli (Ranchi) and Oxygen Park at Morhabadi Park in Ranchi district. In the financial year of 2016-17, the budget provision of Rs. 6780320 lakhs were sanctioned under this scheme.

Table: 16.6 Targets for Afforestation on Land outside Notified forest in Jharkhand, 2016-17

| Financial Target (in Rs. Lakh) | Work | Physical Target | | |
|--------------------------------|--|--------------------------------|-----------------------|-------------------------|
| | | Affirmation (2nd and 4th Year) | Completion (2nd Year) | Advance Work (1st Year) |
| 6780.32 | Bamboo Gabion Plantation (Pathway and Institute Complex) | 3,74,398 | 2,05,627 | 1,86,925 |
| | Iron Plantation (Advance cum Finishing Work) | | | 17,727 |
| | Plantation of Long Plants in Institutes | | | 30,750 |
| | Iron Plantation on Non-forest land | | | 554 ha. |

Source: Department of Forest, Environment and Climate Change, Government of Jharkhand, 2016-17

Permanent Nurseries & Seed Orchards

This scheme has proposed the creation, development, and maintenance of permanent nurseries in order to enhance the capacity with respect to afforestation. In 2016–17, it was proposed to build clonal seed orchards for the supply of quality seeds and planting materials for afforestation projects and development of specific permanent nurseries for raising tall plants to be utilized in urban tree plantations. The research wing of the Forest Department is proposed to undertake the improvement of the permanent nurseries. During 2017-18, afforestation was to be undertaken during the rainy season and maintenance for about 250000 plants was proposed to be taken up while nearly 2460000 tall plants were proposed to be raised.

Development of Minor Forest Produce (MFP)

To strengthen the livelihood security and income of the rural households, the development and processing of Minor Forest Produce (MFP)/Non-Timber Forest Produce (NTFP) such as *Lac*, *Tasar*, Sal seeds, *Mahua* seeds, Bamboo, Medicinal plants, etc. (other than *Kendu* leaves) as well as edible fruits/ flowers (mango, *Jamun*, *Kathal*, *Mahua*,) gums resins and plants has been proposed. These are considered as value additions for livelihood and income of rural households. Requisite training and equipment are to be provided to the primary collectors/JFMCs/SHGs as part of this scheme. In 2017–18, on-going work programmes of lac production through JFMCs, SHGs of lac growers and lac/*Tasar*-host plantations were proposed to be continued along with new works which aim at augmenting MFP/NTFP-based (production and value addition) rural income/employment through relevant skill development. The necessary tools and equipment will also be provided.

It is proposed to carry out Lac Cultivation (Kusumi and Rangini) through the SHGs. About 1500 SHGs are targeted during the financial year 2017-18.

Green India Mission

The National Mission for Green India is one of the centrally sponsored schemes which is also one of the eight missions under the National Action Plan on Climate Change (NAPCC). This scheme considers climate change as a phenomenon which can have serious consequences on the livelihood of the people. Under this mission the term “greening” or afforestation plans have been intended to enhance ecosystem services like carbon sequestration and storage, hydrological services and biodiversity; along with provisioning services like fuel, fodder, small timber, and NTFPs. It also plans to enhance the activities like landscape development through eco-restoration and afforestation. Steps such as improvement in forest-based livelihood in and around the forested areas and encouraging the alternative fuel will also be taken up.

The total budget of Rs 134.10 lakhs is approved for this scheme, out of which 60 per cent is the centre’s share and 40 per cent is the state’s share. For the year 2016-17, the amount of Rs. 1043.769 lakh has been sanctioned for this scheme.

Table: 16.7 Financial and Physical Targets for Green India Mission in Jharkhand, 2016-17

| Financial Target (Rs. Lakh) | Work | Physical Target |
|-----------------------------|------------------|-----------------|
| 413.470 | Grow tall plants | 350000 plants |

Source: Department of Forest, Environment and Climate Change, Government of Jharkhand, 2016-17

The details of physical and financial targets are given in the Table 16.7 for the financial year 2016-17. The budget provision of Rs. 200 lakhs have been

proposed under this scheme for the financial year of 2017-18.

Intensification of Forest Management Schemes

This is a Centrally Sponsored Scheme on 60:40 sharing basis (Centre: state). Under this, the works such as infrastructure improvement, fire protection, construction of boundary pillar, and conservation of sacred groves are proposed. The other key derivable of this scheme is the management of bamboo forests and forest invasive species. It's a Centrally sponsored scheme under which the work plan of Rs. 451.83 lakhs were allocated. During the financial year 2016-17, the Government of India had released an amount of Rs. 274 lakhs out of which Rs. 269 lakhs was approved for this scheme.

National Afforestation Programme

This is a centrally sponsored scheme, where 60 per cent of the total cost will be borne by the central government and 40 per cent by the state government. The Forest Development Agency (FDA) has been considered and recognised as an association of Joint Forest Management Committees (JFMCs) at the Forest Division level to commence all-inclusive development in the forestry sector with people's participation. Such decentralization in the form of two-tier institutional structure (FDA and JFMC) allows greater participation of the community, both in planning and implementation, and aims to improve forests and livelihood of the people, who are relying on the forest resources. The two-tier approach, apart from building capacities at the grassroots level, considerably empower the local people to participate in the decision-making process. Under Entry Point Activities, community assets are created with a 'care and share' concept. In the financial year 2017-18, there is a proposal for the budget provision of Rs.

280 lakh under this scheme.

Silvicultural Operation

In the working plans of respective Forest Division, the various Silvicultural operations have been carried out for better scientific management of forests. The area selected for Silvicultural operations and Soil conservation work is 10026 hectares. In the financial year 2016-17, the 3500-hectare forest land is proposed for the promotion of forests, natural regeneration, and water and land conservation. During the financial year 2017-18, the budget provision of Rs. 2000 lakhs have been proposed.

Digitization and Consolidation of Forest Boundary & Records

A budget provision of 4200 lakhs is proposed under this scheme. The total area of the state is 79714 sq.km out which 23605 sq.km is covered with forest area. There are about 1223843 lakh forests Boundary Pillars (BPs) marked/erected along the boundaries of the forests in the state. However, after the formation of the state, nearly 157804 RCC BPs were constructed and there is a need to construct the remaining 1091196 boundary pillars. During the financial year 2015-16, 80088 boundary pillars and during 2016-17, 104884 boundary pillars were constructed and the remaining are proposed to be constructed in a phased manner over the succeeding 8 years.

The works related to Survey, Demarcation, and Consolidation of Forest Boundary are proposed to be done in two stages. In the first stage, GPS/DGPS Survey of the Forest Boundaries are to be done to mark the actual line of boundaries of the forests. The patches of forests near the towns are also vulnerable to encroachment problems, thus, it has been proposed to delineate such boundaries with GPS/DGPS Survey and consequently the boundary

walls will also be built in the second stage.

Modernization & IT enabled Services for Forest Offices

The Department of Forest, Environment and Climate Change inevitably requires keeping pace with the changing circumstances particularly in the utilization of Information and Communication Technology (ICT). To equip the offices and the officials of the Forest Department right from the Headquarters level to the Beat and Sub-beat level with modern facilities including computers and web facilities, telephones, portable applications, fax machines, photocopy machines, and so on, a new plan 'Modernization and IT-enabled Services for Forest Offices' was initiated during the budgetary year 2015-16. During the year 2015-16, apart from computers and other extras, solar-powered stations were built in remote forest offices where electricity facility was not accessible. During 2016-17, an emphasis was given to the Modernization and providing IT-enabled infrastructure to the respective offices to ensure a compelling work environment. The use of modern technology for effective forest security and administration are also considered under this scheme.

Flagship schemes for Conservation of Wildlife

Palamu Tiger Reserve (60:40)

This is a Centrally Sponsored Scheme on 60:40 sharing basis (Centre: State) which was started by the Government of India in 1974. The Palamu Tiger Reserve is distributed across an area of 1026 sq.km. The objective of this scheme is to maintain and develop the tiger habitat which will provide an affable environment for the Tigers. There has been considerable development in the ecology of the Tiger

Reserve/ National Park after the commencement of this scheme. The scheme remains operational in 2017-18 as well. In the financial year 2016-17, an amount of Rs. 109.7910 lakhs were approved under this scheme which involves recurring expenditure related to maintenance in Palamu Tiger Reserve. Under this scheme, there is a provision of non-recurring expenditure as well. During the financial year 2017-18, a budget provision of Rs. 160 lakhs were proposed for this purpose.

Palamu Tiger Reserve (50:50)

This is a Centrally Sponsored Scheme on 50:50 sharing basis (Centre: State) which was started by the Government of India in 1974. The Palamu Tiger Conservation Foundation, as a state-level trust for conservation, management and development of Tiger and its habitat in the state has been notified by the Government of Jharkhand vide its Notification No. WL-1 of 2008-2009/274/Va. Parya, Ranchi dated 20-01-2014. The Foundation will have administrative autonomy as delegated by the state government for protection of Tigers and biodiversity in the reserve, its development and related activities involving the local people. With the creation of Palamu Tiger Conservation Foundation, grant-in-aid received from the state government will be managed by the Foundation. In the financial year 2016-17, an amount of Rs. 185 lakhs have been approved under this scheme which is to take into account the recurring expenditure related to maintenance of Palamu Tiger Reserve. In the financial year 2017-18, a budget of Rs. 200 lakhs have been proposed for this scheme.

Project Elephant

Project Elephant was propelled in 1992 by the Ministry of Environment, Forest, and Climate Change, Government of India to give financial and technical support to the respective states for wildlife management endeavours for their free-ranging population of wild Asian Elephants. The project plans to guarantee the long-haul survival of reasonable conservation dependent populations of elephants in their regular habitats by securing the elephants, their habitats, and migration corridors. This project also aims at supporting exploration of the ecology and management of elephants, making conservation mindfulness among neighbourhood individuals and giving enhanced veterinary care to captive elephants.

In 2017-18, 60 per cent of the total cost of the scheme was to be borne by the central government and 40 per cent by the state government. Under this scheme, the work related to the development of habitat and development of Elephant Corridor will be undertaken as per the requirement of Singhbhum Ganj Reserve and other districts of the state. In the financial year 2017-18, the budgetary provision of Rs. 90 lakh (states) was proposed for this scheme.

Integrated Development of Wildlife Habitat

Under this scheme, the management and development of all Wildlife Sanctuaries (wildlife habitats) of the state are carried out for in-situ conservation and development of wildlife. The works include protection of wildlife from poaching as well as protection of their habitat from illicit felling, fire, encroachment, etc., management (creation/

upgradation/ upkeep) of grassland, water holes and other infrastructure, eco-development activities and awareness generation.

This is a Centrally Sponsored Scheme, which has a total budget of Rs. 158.27 lakhs sanctioned and 60 per cent cost will be borne by the Centre and 40 per cent will be borne by the respective state governments. In the financial year 2016-17, a budget of Rs. 63.306 lakh (state) was sanctioned under this scheme. In the financial year of 2017-18, a budget provision of Rs. 100 lakh (state) was proposed under this scheme for the development and maintenance of one national park and 11 wildlife sanctuaries in the state.

National Plan for Conservation of Aquatic Eco-systems (NPCA)

The primary goal of the scheme is all-encompassing conservation and restoration of lakes and wetlands for accomplishing preferred water quality along with the improvement in biodiversity and ecosystem through an integrated and multidisciplinary approach with a common regulatory framework. Apart from the implementation of comprehensive Management Action Plans, this scheme on conservation and management of lakes and wetlands shall also cover within its scope the management of an inventory of information system on lakes and wetlands. The capacity building at state government and local body levels will also be evaluated.

It is a centrally sponsored scheme and its cost will be borne 60 per cent by the Centre and 40 per cent by the state governments. The budget provision of Rs. 8 lakh (state) under this scheme was proposed in the financial year 2017-18. The works related to the protection and development of Udyva and other wetlands of the state is to be undertaken.

Box: 16.3 Jharkhand: The Plastic Free State

The Cabinet has put a ban on manufacture, import, storage, transportation, sale and usage of plastic bags in the State of Jharkhand. However, the packaging of various food materials, milk and milk products and containers to raise plants in the nurseries made up of plastics will not be treated as plastic carry bags. The Cabinet stated that earlier the use of plastics was banned in eco-sensitive areas, biological parks and in Rajrappa Temple. But the rampant use of it has resulted in degradation of the environment, thus causing environmental pollution. The Cabinet has confirmed that any violation of the proposed provisions is punishable under the section 15 of the Environment (Protection) Act, 1986.

Water Resources of Jharkhand

The development of available water resources of any region is crucial for the livelihood of the people and to meet the challenge of food security. Agriculture utilizes approximately 80 per cent of the water resources which is more or less constant. The dynamic demand-supply balance has to be maintained by managing demand as well as ensuring supply in a more efficient way i.e. increasing water use efficiency by growing transferral efficiency and on-farm application efficiency.

The State Water Resources Department in Jharkhand is mainly engaged in the development of all types of water resources in the state. Jharkhand has a total agricultural area of about 29.74 lakh hectares. The ultimate irrigation potential that can be created is on 24.25 lakh hectares of the area. As per the estimation of 2nd Bihar Irrigation Commission Report (1994), the 12.765 lakh hectares of irrigation potential is to be created through Major & Medium Irrigation Projects and the rest of the potential is to be created

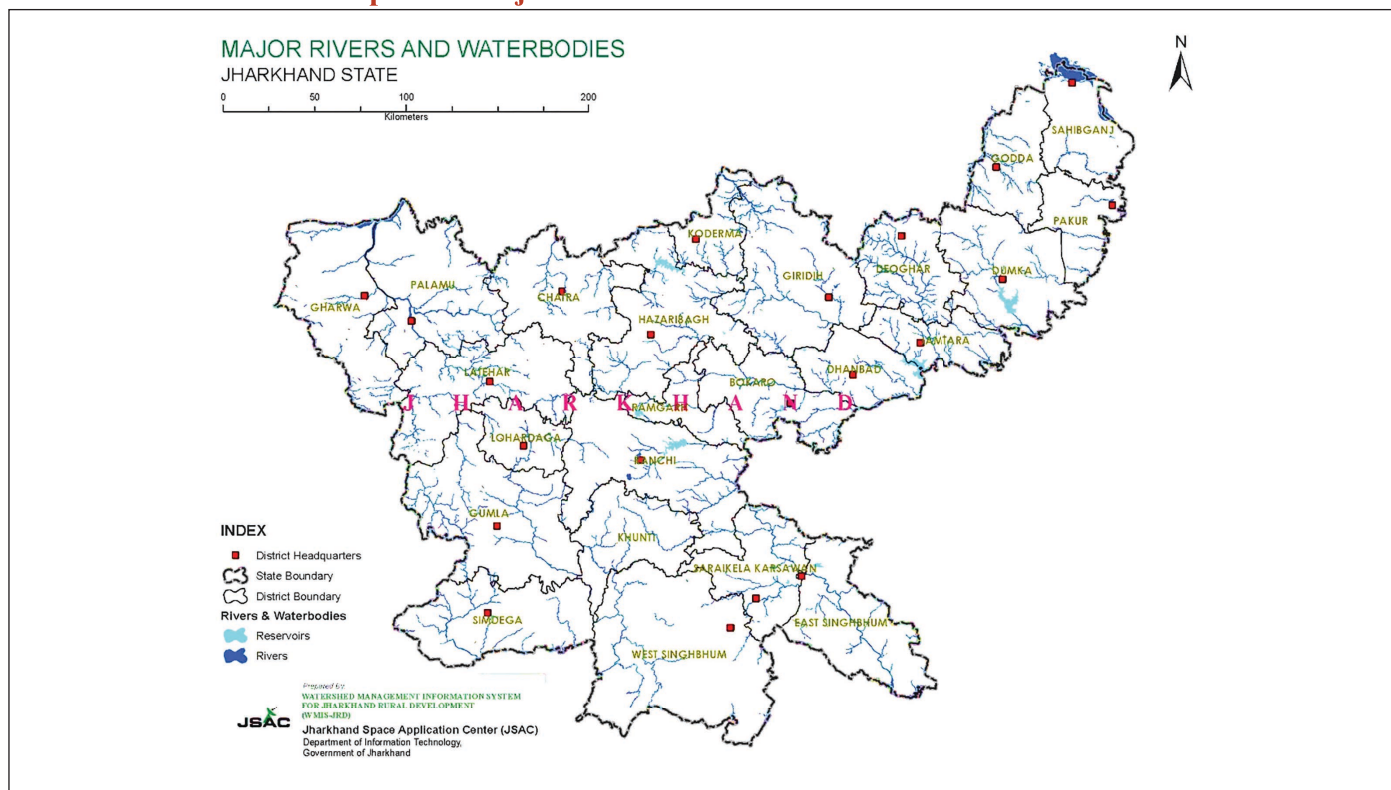
through Minor Irrigation Projects. The objectives of the Water Resources Department of Jharkhand is to – enhancing the irrigation coverage; making the existing irrigation network more efficient; improving and making effective the participatory irrigation management; emphasizing on minor and lift irrigation projects as they are more suitable and economical and have low gestation period; recharging and replenishing the decreasing groundwater table; and providing industrial water to prospective industries and inter-river basin transfer of water.

Availability and Status of Surface Water Resources in Jharkhand

According to the assessment of central & state Ground Water Board Directorate, the total availability of water in Jharkhand was 32779 million cubic meter (MCM) out of which 27528 MCM was available in the form of surface water and 5251 MCM was available in the form of groundwater. As per the estimation of 2nd Bihar Irrigation Commission Report, 1994 the surface water availability in Jharkhand was 27528 MCM out of which the 11335 MCM of surface water was allocated for irrigation purpose, 5321 MCM was allocated for industry and drinking purpose, 3361 MCM was for the purpose of transfer to other basins, and 7511 MCM of surface water was allocated for river releases.

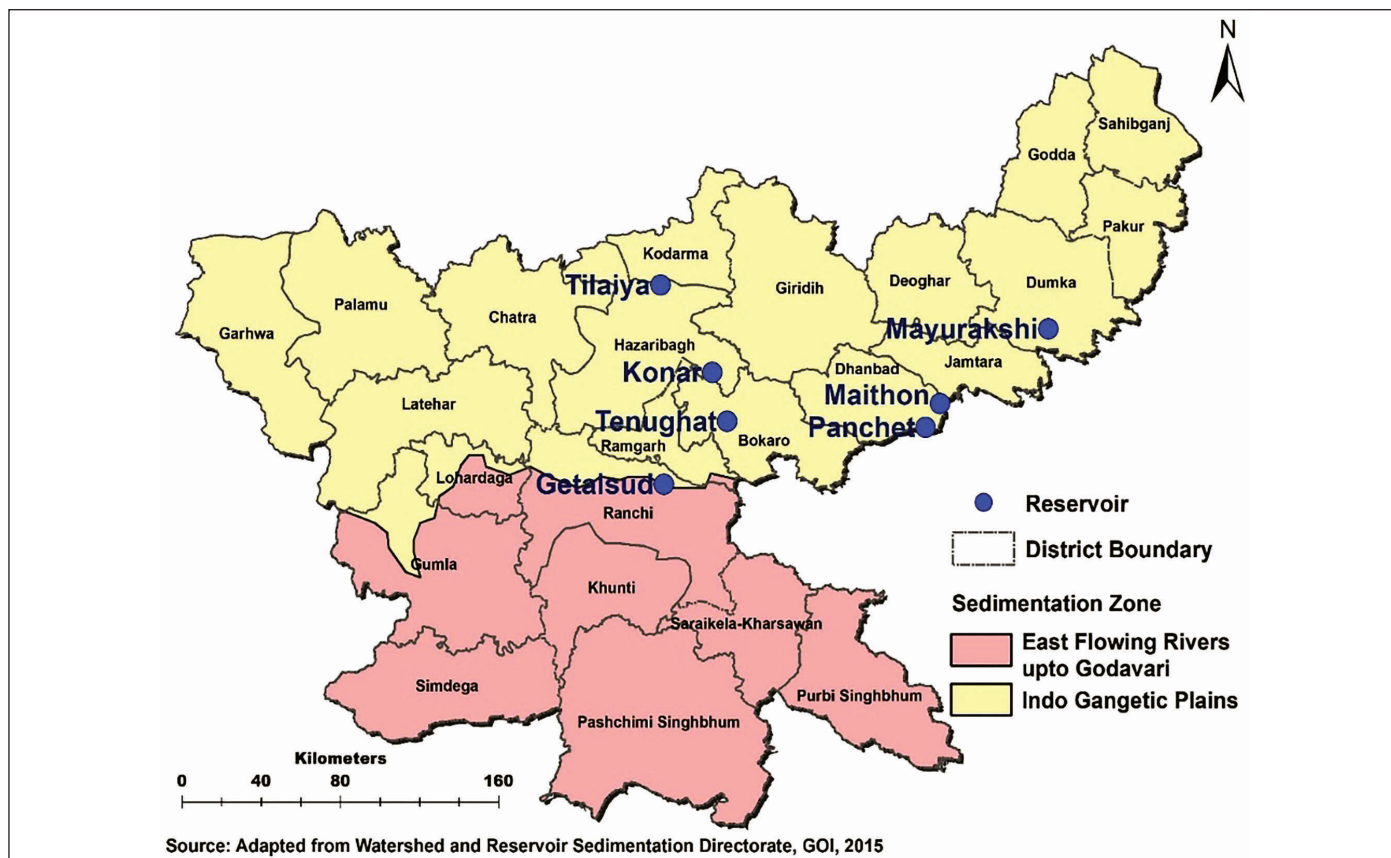
The availability of water is important for irrigation which helps in raising productivity in the agriculture sector. The development of both the groundwater and surface water resources has assisted in raising the cultivated area under irrigation in the state. The culturable area in Jharkhand is 29.74 lakh hectares against the total geographical area of 79.72 lakh hectares. Irrigation potential has been created in 10.0064 lakh hectares of land till November 2017. More irrigation potential can be created up to 24.25 lakh hectares of agriculture land.

Map: 16.8 Major Rivers and Waterbodies in Jharkhand



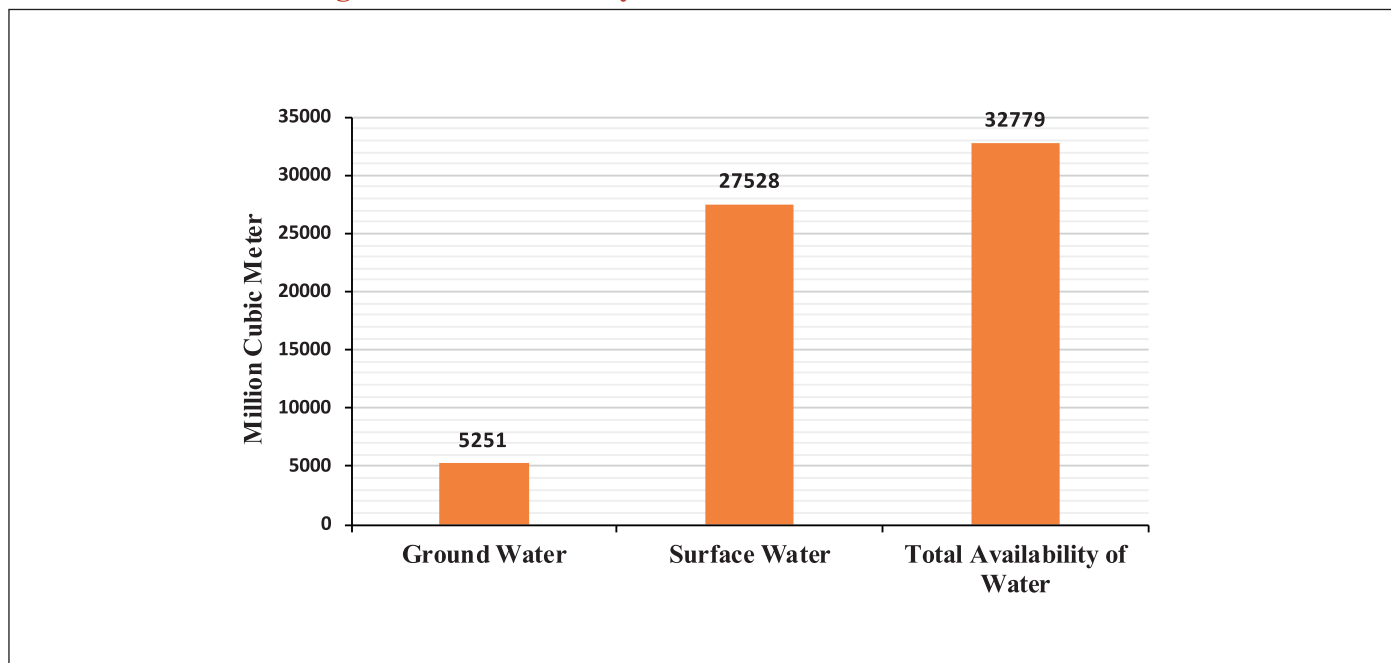
Source: Jharkhand Space Applications Centre (JSAC), Government of Jharkhand

Map: 16.9 Major Reservoirs and Sedimentation zones in Jharkhand



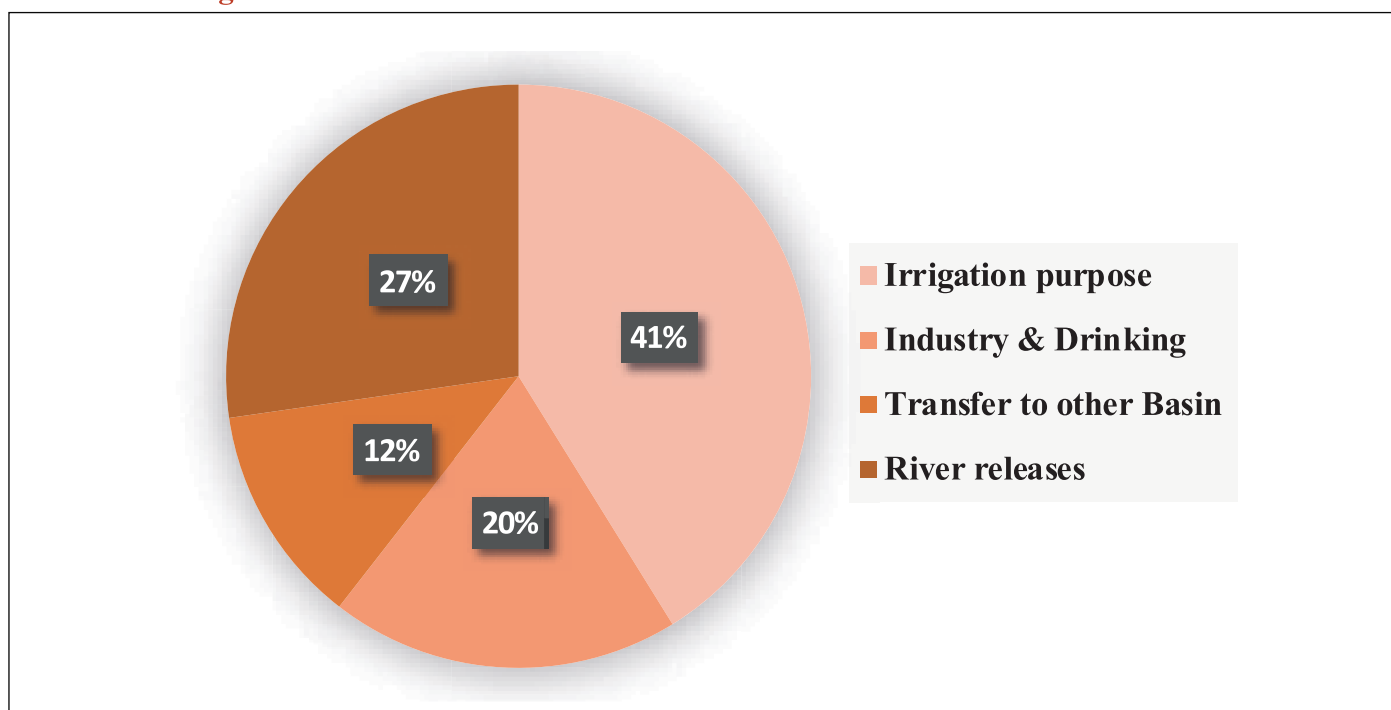
Source: Compiled from Watershed and Reservoir Sedimentation Directorate, Government of India, 2015

Figure: 16.4 Availability of Water Resources in Jharkhand



Source: Planning-cum-Finance Department, Planning Division, Government of Jharkhand

Figure: 16.5 Utilization of Available Surface Water Resources in Jharkhand



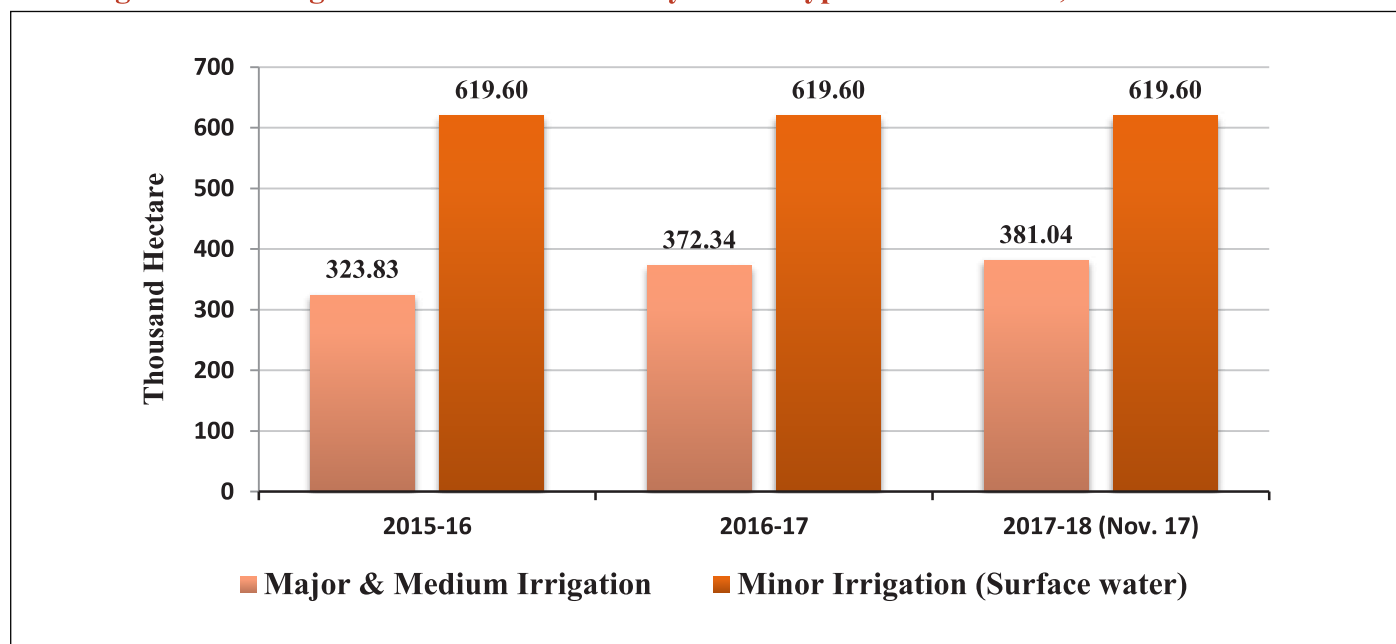
Source: Planning-cum-Finance Department, Planning Division, Government of Jharkhand

Irrigation Potentials of Jharkhand

The surface water irrigation projects are classified into the major, medium and minor irrigation projects based on the cultivated command area generated by them. The irrigation potential created through Major

& Medium Irrigation projects was 381.04 thousand hectares. Whereas, the irrigation potential created through Minor Irrigation projects was 619.60 thousand hectares during 2017. The total irrigation potential of Jharkhand in 2017 was 1000.64 thousand hectares.

Figure: 16.6 Irrigation Potential Created by Source types in Jharkhand, 2015-16 to 2017-18



Source: Water Resources Department, Government of Jharkhand

The irrigation potential created through major and medium projects in Jharkhand has witnessed an 18 per cent increase from 2015-16 to 2017-18 (till November 2017). Wherein, the irrigation potential created through minor irrigation has witnessed no change from 2015-16 to 2017-18 (till November

2017). During 2017-18, the targeted additional irrigation potential of 17,900 hectares was proposed to be created by completing/partially completing the following schemes under Major and Medium Irrigation Sector (Table: 16.8)

Table: 16.8 Targets for Major and Medium Irrigation Schemes in Jharkhand, 2017-18

| Name of Scheme | Proposed Targets in ha. |
|--|-------------------------|
| Subarnarekha Multipurpose Project (Partial creation) | 8000 |
| Upper Shank Reservoir Project | 2400 |
| Sonua Reservoir Project | 3000 |
| Panchkhero Reservoir Project | 1500 |
| Ramrekha Reservoir Project | 1000 |
| Gumani Barrage Scheme | 2000 |
| Total | 17900 |

Source: Planning-cum-finance Department, Planning Division, Government of Jharkhand

Similarly, during 2017-18, the targeted additional irrigation potential of 15,994 hectares was proposed

to be created through Minor Irrigation Schemes.

Table: 16.9 Proposed Targets for Minor Irrigation Schemes in Jharkhand, 2017-18

| Name of Scheme | Proposed Targets in ha. |
|---|-------------------------|
| Construction of Minor Irrigation Schemes, Check Dam & Series Check Dam Schemes, Construction of Lift and Micro-Lift Irrigation Schemes & other Minor Irrigation Schemes | 15994.00 |
| Total | 15994.00 |

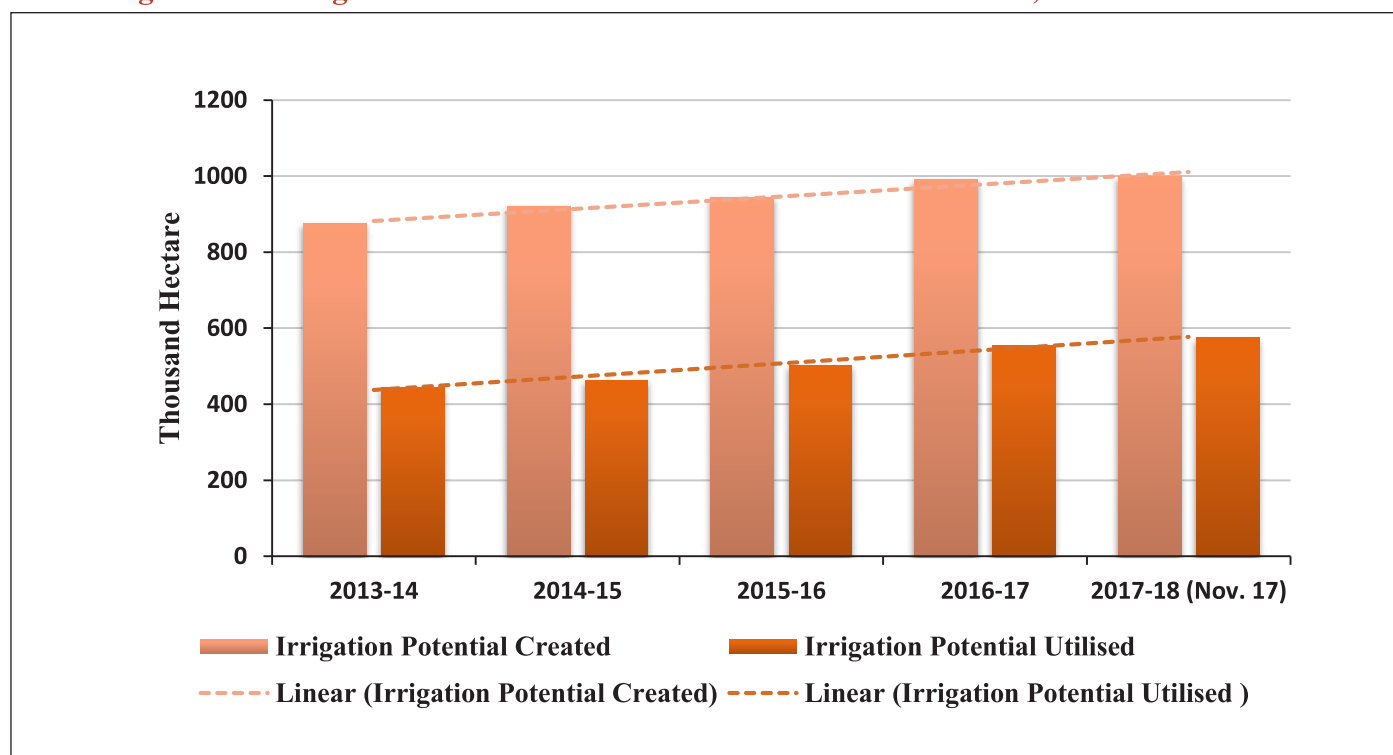
Source: Planning-cum-finance Department, Planning Division, Government of Jharkhand

The temporal development of overall irrigation potential created in Jharkhand from 2013-14 till November 2017-18 have witnessed an increasing trend. In 2013-14 the irrigation potential created in Jharkhand was 876.46 thousand hectares which increased to 1000.64 thousand hectares during 2017-18 (till November 2017). Therefore, an increase of 14.17 per cent has been observed in the total irrigation potential created from 2013-14 to 2017-18.

Similarly, the utilization of irrigation potential

has also witnessed a rising trend during the period 2013-14 to 2017-18. During 2013-14, the irrigation potential utilised in Jharkhand was 444.42 thousand hectares i.e. about 51 per cent of the created irrigation potential was utilised in 2013-14. In 2017-18 (till November 2017) the irrigation potential utilised in Jharkhand was 574.07 thousand hectares i.e. about 57 per cent of the created irrigation potential was utilised. An increase of 29.17 per cent has been noted in the utilisation of irrigation potential in Jharkhand during 2013-14 to 2017-18.

Figure: 16.7 Irrigation Potential Created and Utilised in Jharkhand, 2013-14 to 2017-18



Source: Water Resources Department, Government of Jharkhand

Table: 16.10 Extent of Irrigation Potential Utilised in Jharkhand, 2013-14 to 2017-18

| | Irrigation Potential Created (‘000 ha.) | Irrigation Potential Utilised (‘000. ha.) | % Irrigation Potential Utilised |
|-------------------|--|--|------------------------------------|
| 2013-14 | 876.46 | 444.42 | 50.7 |
| 2014-15 | 919.87 | 463.32 | 50.4 |
| 2015-16 | 943.43 | 501.52 | 53.2 |
| 2016-17 | 991.94 | 553.06 | 55.8 |
| 2017-18 (Nov. 17) | 1000.64 | 574.07 | 57.4 |

Source: Water Resources Department, Government of Jharkhand

Major and Medium Irrigation Projects

During the financial year 2017-18, the work components of the following Major and Medium Irrigation Projects were as follows:

Subarnarekha Multipurpose Project

The Subarnarekha Multipurpose Project is an inter-state project of Jharkhand, Odisha and West Bengal for which tripartite agreement was signed between undivided Bihar, Orissa and West Bengal on 7th August 1978. The administrative approval was granted for Rs. 128 crores. In 2011, the revised administrative approval of amount Rs. 6613 crores were provided, under which the work of this project was undertaken. On this project, so far, Rs. 4,900 crores have been spent until January 2017.

In 2016-17, the construction of Chandil Dam was completed. The work on the main canal of Chandil left is also almost completed. At present, 99,560 hectares of irrigation potential has been generated from this canal system. The remaining work of its distribution system is in progress. The construction work of Galudih Barrage has also been completed and the main canal of Galudih right is almost completed. The canal water is shared with the state of Odisha. In Jharkhand, 7766 hectares of irrigation potential has been created from this canal. The work on its distribution system is in progress. The construction of the main canal on the left was in progress. It is proposed to generate 10465 hectares of irrigation

capacity. While the construction of Kharkai Barrage is in progress, the construction of Icha Dam was proposed to start. The construction of the left and the right main canals were in progress.

The plan has been set to be completed in 2019-20 for which the amount will be provided in the ratio of 60:40 under the Accelerated Irrigation Benefits Programme (AIBP) by the central government. For the project, the central government had granted Rs 335.54 crores in the year 2011-12, Rs 515.72 crores in 2012-13, Rs 281.62 crores in the year 2015-16 and Rs 145.75 crores in the year 2016-17. Thus, a total amount of Rs 1278.63 crores has been granted so far. Apart from this, an amount of Rs 987.8956 crores was received from the Government of Odisha/West Bengal till 2015-16 and another Rs 26 crores was received in 2016-17 which amounts to a total of Rs 1013.8956 being granted for this project.

Ajay Barrage Project

Ajay Barrage is located in Deoghar and Dumka districts of Jharkhand. Under this project, a barrage has been built on the Ajay River near Sikati village under Sarath block of Deoghar district. Through the main canal and its branch canals of 110.80 km length, irrigation can be provided for total 40510 hectares of land (Kharif 36460 hectares and Rabi 4050 hectares) in Jamtara, Nala and Kundhit blocks. The head works i.e. barrage and gates are 100 per cent completed. The work on the main canal and

its branch canals are also being completed while the work on the distribution system is 100 per cent completed. The latest administrative approval was for Rs. 351.84 crores against which an expenditure of Rs. 361.03 crores have been incurred up to March 2016. It has been targeted to complete the balance work of the project by March 2018.

Amanat Barrage Project

This project proposes the construction of a barrage across river Amanat close to Panki block in Palamu district. The ultimate irrigation potential proposed to be created through this project amounts to 25000 hectares, the revised estimated cost of which was Rs. 341.11 crores. The expenditure (up to March 2016) for this project was Rs. 262.08 crores. The construction work on the barrage was completed while the work on afflux bundh at the headworks had been stopped due to public protest. The Department of Water Resources has been working to settle down the various issues raised during the implementation of this project viz. the canal work was held up due to the lack of forest clearances for which a proposal had already been sent to the Government of India. In the financial year 2017-18, the target was to complete the balance work on the canal after obtaining forest clearance. For this project, first administrative approval was given in the year 1983 for Rs. 125.40 crores. Its revised administrative approval was provided for Rs. 341.11 crores in the year 2003 under which the work on this project was undertaken. On this plan, Rs. 262.23 crores have already been incurred until January 2017. On completion, this project is proposed to provide 25,000 hectares of irrigation facility.

Gumani Barrage Project

The project proposes the construction of a Barrage on the river Gumani at village Petkhasa in Sahibganj

district. It has one main canal which is 33 km long which provides irrigation facility to 16,190 hectares of land in Barhait, Patana, Barharwa, Litipara and Hirapur blocks of Sahibganj and Pakur districts. The work on the barrage and spillway was 100 per cent completed while the construction of stop log gate gantry crane and hoisting arrangement was proposed to be done. Land acquisition was under process for the extension of Left Afflux Bundh. The main canal work was 100 per cent completed while work on the branch canal and its distribution system were 85 per cent completed. The recent administrative approval amount for this scheme was Rs. 162.59 crores, against which an expenditure of Rs. 166.34 crores have been incurred up to March 2016. The balance work on Barharwa Branch Canal, Distribution System and Left Afflux Bundh are targeted to be completed in the financial year 2018-19.

Konar Irrigation Project

The project is located on the river Konar in village Banaso of Bishnugarh block in Hazaribagh district. This project constitutes the approach channel, intake structure, tunnel work, 9.2 km lined main feeder canal and 97.28 km unlined canal including branch canal and distributaries. This project irrigates 62790 hectares area in Bishnugarh block (Hazaribagh), Bagodar and Dumri Block (Giridih) and Nawadih block of Bokaro district. Administrative sanction was given for the first time in the year 1975 for Rs 11.43 crores. Its revised administrative approval was provided for Rs 348.38 crores in the year 1999 under which the work on this project was undertaken. On the project Rs. 342.36 crores have been spent until January 2017. The target of water supply through the main canal and the branch canals of a total length of 70 kilometres is to be fixed by June 2018 which is proposed to irrigate 10,000 hectares of land.

North Koel Reservoir Project

Under this project, a dam was built on North Koel River near Mandal village of Latehar district and construction of a barrage at a distance of 96 km from the dam was also in the process on the same river. The North Koel Project is a joint project of Jharkhand and Bihar and a Memorandum of understanding (MOU) was signed between the states in June 2006. In 1970, the amount of Rs. 30 crores grant was approved. Further in 1998, the administrative approval of Rs 814.73 crores was granted for this project under which the work on this project was undertaken. The expenditure on this scheme till January 2017 was Rs. 768.35 crores. The project consists of the following components:

- Composite dam across river North Koel near village Kutku,
- A barrage on the same river, 96 km downstream of the Kutku dam,
- Two main canals on Left and Right taking off from the Mohammad Ganj barrage.

The length of the right main canal is 109 km out of which 31 km is in Jharkhand and 78 km is in Bihar. Canal irrigation was proposed to be provided on 12470 hectares of land in Palamu district of Jharkhand. The length of the left main canal was 11.81 km in Jharkhand which irrigates 2320 hectares. the area in Garhwa district. Partial irrigation was also provided through Mohammad Ganj barrage. The work on the Dam was also complete. Now, the balance work of the project is to be completed by MoWR, GOI.

Bateswarsthan Pump Canal Project

This is an interstate project and its head works are situated in Bihar. Under this project, the water for irrigation was proposed to be lifted by high capacity

electric pumps to be installed on river Ganga near village Sheikhpura or Kahalgaon. The total length of the main canal is 47.26 km out of which 14.36 km is in Jharkhand and rest 45.73 km is in Bihar.

Under this project, the 4,887-hectare area has been proposed to get irrigation benefit in Meharna and Mahagama blocks of Godda district in Jharkhand. An estimated cost of this project in Jharkhand was Rs. 100.31 crores. The expenditure up to January 2017 was Rs. 51.27 crores while the work on the portion of the Main canal situated in Jharkhand was in process.

Upper Shank Reservoir Project

It's a medium irrigation project in the state of Jharkhand wherein an earthen dam of 1068 m length across the Sankh River in Tangal village of Dumaria block in Gumla district has been constructed. The two Main canals are also included in this project i.e. the left main canal with a length of 14.04 km and the right main canal with a length of 13.10 km. This project is proposed to irrigate 7070 hectares of the area in Dumri and Chainpur blocks of Gumla district. The work on the dam and both the canals have been completed and its distribution network has been partially completed. The provision for partial irrigation of 1500 hectare area has been done through supplying the water to the tail end of the Left Main Canal of Upper Shank Reservoir in Gumla district. The recent administrative approval was for Rs. 141.19 crores against which an expenditure of Rs. 147.47 crores were incurred up to March 2016. The balance distribution system is targeted to be completed in the financial year 2018-19.

Sonua Reservoir Project

It's a medium irrigation project in the state of Jharkhand wherein an earthen dam across Sanjay River near village Parsua of Sonua block in Pashchimi

Singhbhum district has been constructed. The project contains 19.05 km long left main canal and 11.70 long right main canal and their distributaries. It has supplied water for irrigation to 8008 hectares area in Sonua block of Pashchimi Singhbhum district. The headworks and main canal of the project are completed and the distribution system is 20 per cent completed. The recent administrative approval is for Rs. 82.65 crores against which an expenditure of Rs. 77.12 crores have been incurred up to March 2016. The residual work of the distribution system is targeted to be completed during 2017-18.

Minor Irrigation Scheme

Check dam / Series check dam

Under the Minor Irrigation schemes, the administrative sanction for the construction of 500 check dam/series check dam was issued amounting to a total of Rs 340.784 crores. In the year 2017-18, it has been targeted to complete about 40 of these schemes. These schemes will provide additional irrigation capacity for 29.570 hectares of area.

Weir

A detailed project report of 50 Weir Irrigation Plans is being prepared under the minor Irrigation projects. Out of these schemes, the administrative clearance of 36 schemes has been accorded and have a work plan to complete about 40 per cent of it in the year 2017-18. These schemes will provide additional irrigation capacity in 6,174 hectares of area.

New irrigation schemes (2017-18)

Sone Pipeline Scheme

In Jharkhand, Garhwa and Palamu districts are drought-prone areas due to their unique geographical settings and irregular rainfall pattern. Similarly, due to inadequate water in the reservoirs,

the infrastructure like dams and canal network system are also not fully utilized in these districts. However, if such reservoir is constructed, then it will develop the agricultural activities along with assuring drinking water supply and will diminish the vulnerability in terms of a drought. As per the Annual Plan Report of Government of Jharkhand, 2017-18, the estimated water requirement for drinking purpose is 5.57 million cubic meter (MCM) and for irrigation purpose it is 64.44 MCM which can be supplemented through pipeline projects, which is being prepared for carrying water from Kanhar River and Sone River through the pipeline. After preparation of Detailed Project Report (DPR) for Rs 1064 crores, the administrative approval has been accorded. Now, the E.P.C (Engineering, Procurement & Construction) tender is being invited to execute the project.

Other proposed new schemes

The DPR of Rarhu Reservoir Scheme and Kanhar Reservoir Scheme has been prepared and submitted to Central Water Commission, New Delhi for the approval. Similarly, the Tardiha Reservoir and Siwane Reservoir Scheme are in distinct phases of preparation. After preparation of DPR, the required approval will be obtained on these projects. The administrative approval on DPR of 5 new schemes namely Burhai Reservoir Scheme, Dugani Irrigation Scheme has been accorded. The work of 30 schemes has been completed for restoration out of 102 irrigation schemes up to March 2017. Further, 48 schemes have been sanctioned amounting to Rs 1432.58 crores and out of which work of 25 schemes is going on. This will restore 73,250 hectares lost irrigation potential. DPR of rest 23 schemes has been prepared and under checking for sanction in 2018-19. This will restore 24,000 hectare irrigation potential.

Extension Renovation & Modernization (ERM) work of complete macro and medium irrigation scheme

The work on 5 out of 30 schemes was completed in 2015-16 for the restoration of the 102 irrigation potential schemes of the department. Out of the remaining 25 schemes, 15 schemes were completed in 2016-17 at a cost of Rs. 77.44 crores. This is proposed to rebuild the 17,943 hectares of irrigation capacity. The remaining 10 schemes are proposed to be completed in 2017-18. In the year 2016-17, 15 revival/ERM schemes have been approved at the cost of Rs 637.11 crores. After the tender, the work has begun on these projects. Apart from this, 10 other ERM schemes have been approved this year. Their cost is Rs.22, 2.74 crores whose tenders are under process. After the completion of this work, 14,800 hectares capacity will be restored.

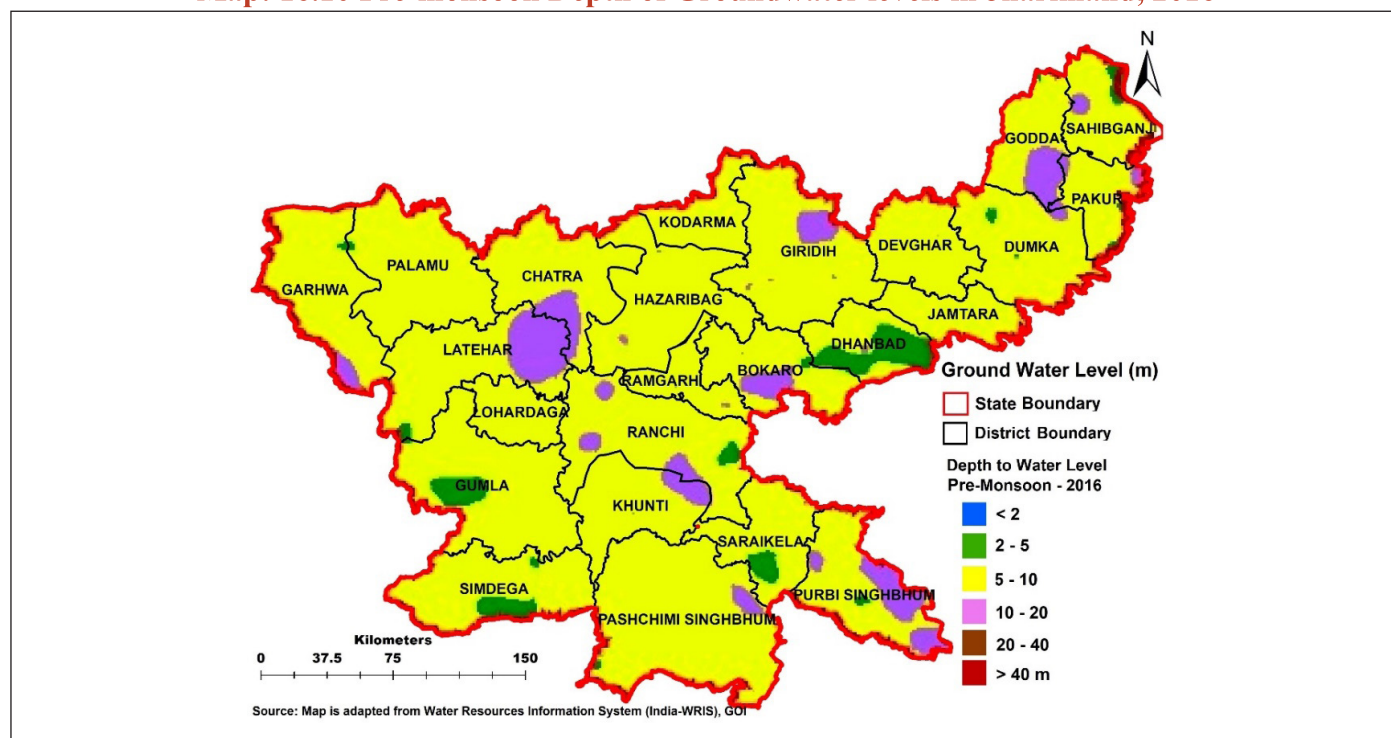
Groundwater:

According to the assessment of central and state

Ground Water Board Directorates, the total availability of water resources in Jharkhand is 32779 million cubic metres (MCM) out of which 5251 MCM is available in the form of groundwater. As per the estimation of 2nd Bihar Irrigation Commission Report, the 3990 MCM of groundwater is allocated for Irrigation purpose, and 560 MCM is allocated for Municipality and Drinking purpose.

According to the Central Ground Water Board (CGWB), the main source of replenishable groundwater is recharged through rainfall, which contributes to nearly 67 per cent of the total annual replenishable resources. The depth of groundwater levels map of Jharkhand for the pre-monsoon season in 2016 (Map 16.10) indicates that shallow water levels (2–5 m below ground level (bgl)) are mostly observed in parts of Dhanbad, Gumla, Simdega and Saraikela districts. In most parts of Jharkhand, the water level during the pre-monsoon season in 2016 was in the range of 5–10 m bgl and some pockets of district Lahtehar, Chatra, Godda, Purbi Singhbhum had groundwater depth at 10-20 m bgl.

Map: 16.10 Pre-monsoon Depth of Groundwater levels in Jharkhand, 2016

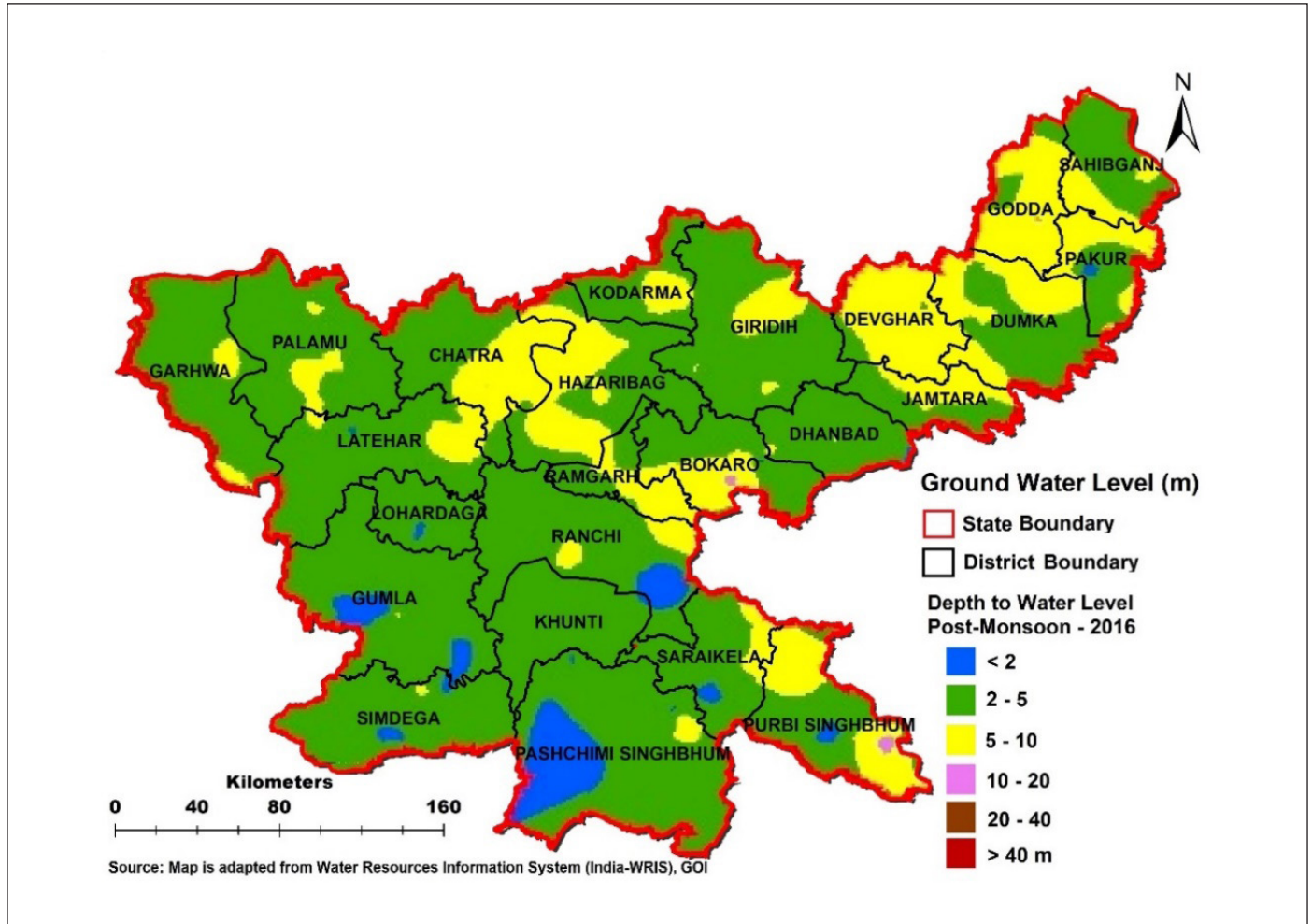


Source: Adapted from Water Resources Information System, India-WRIS, Government of India

The depth of groundwater levels map of Jharkhand for the post-monsoon season in 2016 (Map 16.11) indicates that almost entire state had groundwater level at the depth of 2-5 m bgl. The shallow

depth i.e. less than 2 m bgl have been observed in Paschimi Singhbhum, Gumla, Ranchi and some parts of Simdega, Lohardaga, Saraikela and Purbi Singhbhum districts.

Map: 16.11 Post-monsoon Depth of Groundwater levels in Jharkhand, 2016

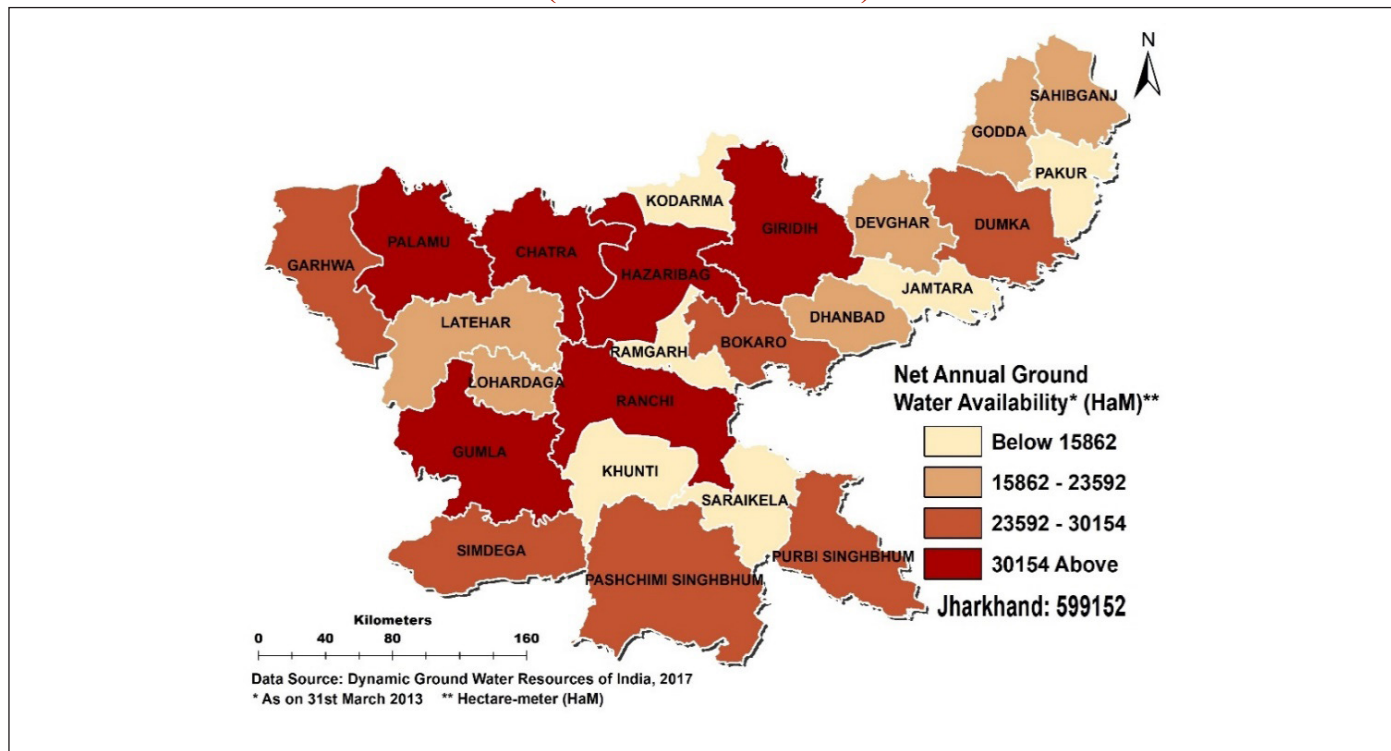


Source: Adapted from Water Resources Information System, India-WRIS, Government of India

According to the report of Dynamic Groundwater Resources of India, CGWB, 2017, the net annual groundwater availability of Jharkhand (as on 31st March 2013) has been estimated as 5,99,152 Hectare-Meter (HaM) or 5.99 Billion Cubic Meter (BCM). The districts which have a better condition of net annual groundwater availability are Gumla, Ranchi, Hazaribagh, Palamu, Chatra, and Giridih. The districts with the deficit condition of net annual groundwater availability are Khunti, Saraikela, Ramgarh, Jamtara, Koderma, and Pakur.

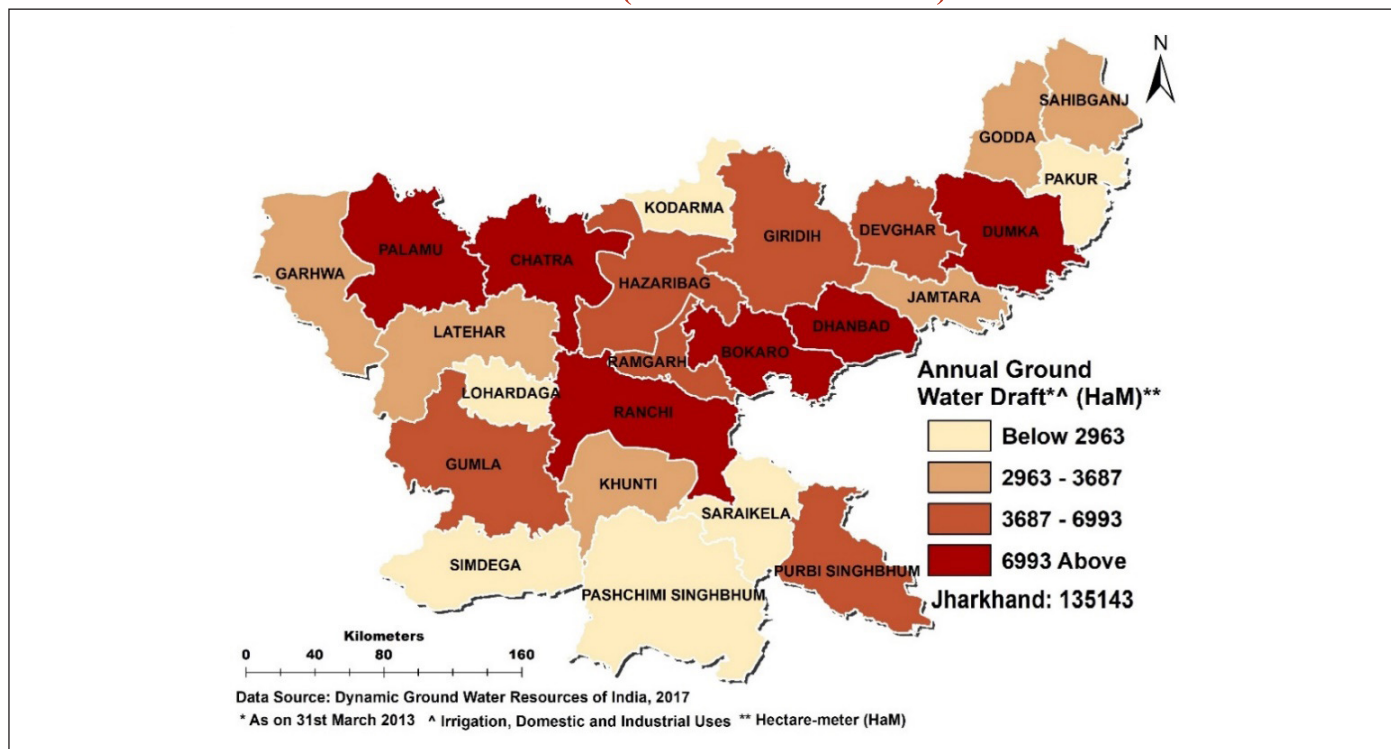
The annual groundwater draft (for irrigation, domestic and industrial uses) of Jharkhand for the reference year of 2013 has been estimated as 1,35,143 HaM or 1.35 BCM. About 46.6 per cent of total annual groundwater draft in Jharkhand i.e. 0.63 BCM is used for irrigation and 0.72 BCM for Domestic & Industrial use which is about 53.3 per cent of the total draft. The districts with greater annual groundwater draft were Palamu, Chatra, Ranchi Bokaro, Dhanbad and Dumka. The minimum annual groundwater draft districts were Lohardaga, Simdega, Pashchimi Singhbhum, Saraikela, Koderma and Pakur.

Map: 16.12 District-wise Net Annual Groundwater Availability in Jharkhand (as on 31st March 2013)



Source: Compiled from Dynamic Groundwater Resource of India, Central Ground Water Board (CGWB), Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India, June 2017

Map: 16.13 District-wise Annual Groundwater Draft (for Irrigation, Domestic and Industrial Uses) in Jharkhand (as on 31st March 2013)

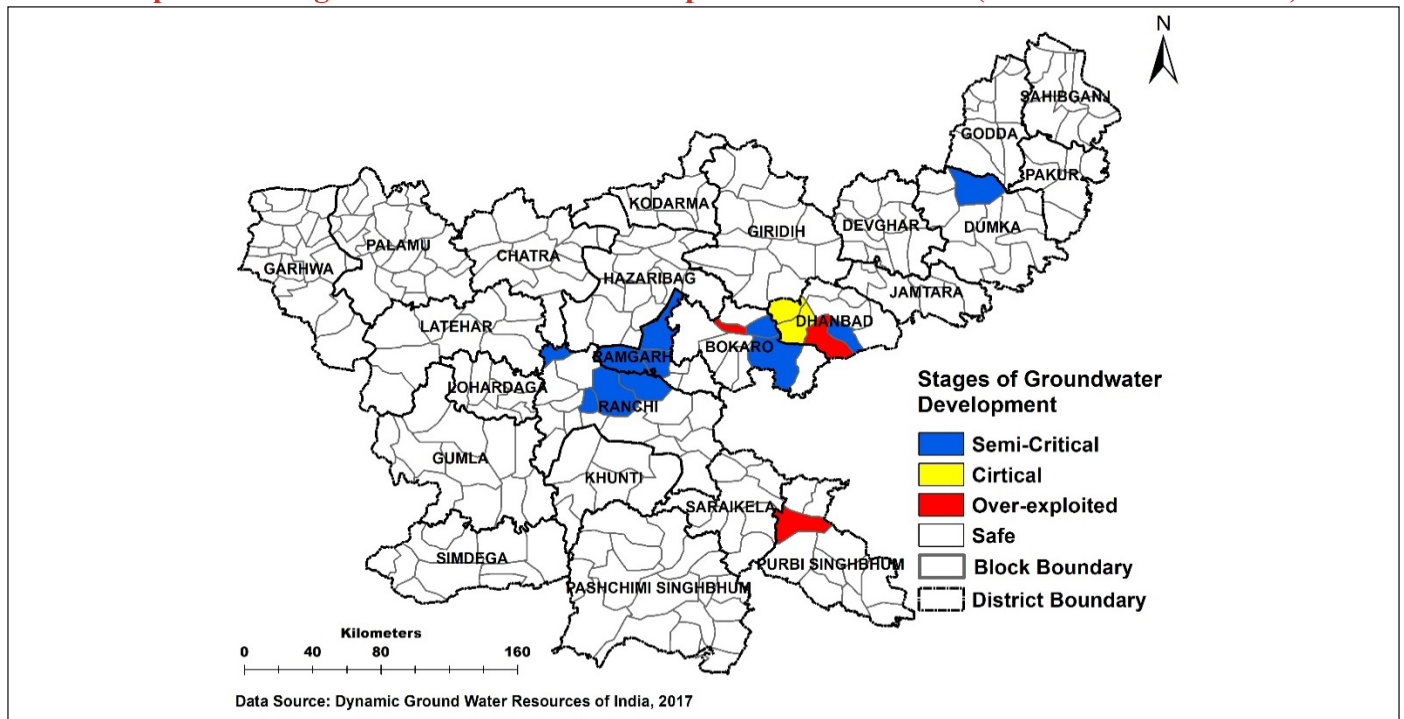


Source: Compiled from Dynamic Groundwater Resource of India, Central Ground Water Board (CGWB), Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India, June 2017

According to the groundwater assessment by CGWB, the overall stage of groundwater development in Jharkhand was 23 per cent which is much lower than the national average of 62 per cent. The lower per cent of groundwater development stage indicates that the annual groundwater extraction is less than annual groundwater recharge. Further, the unit level (Block-wise) assessment of groundwater development reveal that 4 blocks i.e. Bermo (Bokaro district), Dhanbad and Jharia (Dhanbad district), and

Golmuri Cum Jugsalai (Purbi Singhbhum district) have been categorized as ‘Over-exploited’; 2 blocks i.e. Baghmara and Topchanchi of Dhanbad district have been categorized as ‘Critical’; 10 blocks i.e. Chandrapura, Chas, Baliapur, Mandu, Patratu, Ramgarh, Kanke, Khelari, Ormanjhi and Ratu have been categorized as ‘Semi-Critical’; and the rest 244 blocks have been categorized as ‘Safe’. There are no saline blocks in the state.

Map: 16.14 Stages of Groundwater Development in Jharkhand (as on 31st March 2013)



Source: Compiled from Dynamic Groundwater Resource of India, Central Ground Water Board (CGWB), Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India, June 2017

As compared to the previous study by the Dynamic Groundwater Resources of India report, the groundwater development in Jharkhand has witnessed an improvement. As compared to the 2011 assessment, the annual replenishable groundwater resources of Jharkhand has increased by 3.96 per cent. In 2011 the annual replenishable groundwater resource was 6.31 BCM, which increased to 6.56 BCM in 2013. Similarly, the net groundwater availability has also observed a positive temporal change of 3.99 per cent. The net

groundwater availability of Jharkhand increased from 5.76 BCM in 2011 to 5.99 BCM in 2013. The annual groundwater draft for irrigation, domestic and industrial uses has witnessed a decline of 27.42 per cent. In 2011, the annual groundwater draft was 1.86 BCM, which decreased to 1.35 BCM in 2013. Likewise, the stage of groundwater development of Jharkhand has noticed a decline from 32 per cent in 2011 to 23 per cent in 2013. The overall condition of the groundwater resources has improved compared to 2011 assessment of groundwater by CGWB.

Table: 16.11 Development of Groundwater Resource of Jharkhand, 2011-13

| Groundwater Resource | 2011 | 2013 |
|--|-------|-------|
| Annual Replenish-able Groundwater | 6.31* | 6.56* |
| Net Groundwater Availability | 5.76* | 5.99* |
| Annual Groundwater Draft | 1.86* | 1.35* |
| Stage of Groundwater Development | 32** | 23** |
| * In billion cubic meter (BCM) **In percentage (%) | | |

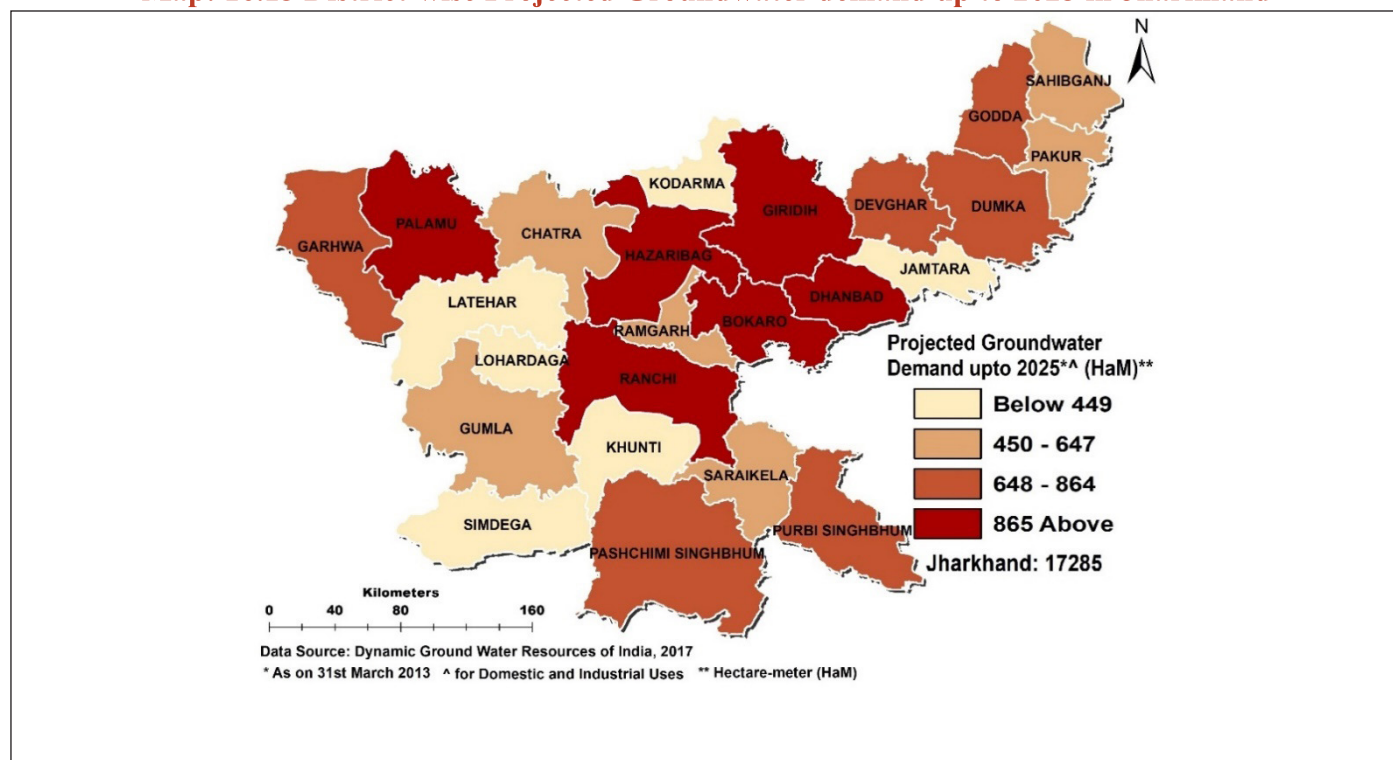
Source: Dynamic Groundwater Resource of India, Central Ground Water Board (CGWB), Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India, June 2017

The projected groundwater demand for domestic and industrial water supply is based on the projected population of the year 2025 through which the assessment of groundwater dependency has been evaluated. In the year 2025, the groundwater demand of Jharkhand would be around 17285-hectare metre (HaM) and the districts with higher demand for water are projected to be Ranchi, Bokaro, Dhanbad, Hazaribagh, Palamu and Giridih.

Work on Groundwater Water Survey and Artificial Recharge Scheme

The over-exploitation of groundwater in urban areas of Jharkhand has witnessed a decline in the groundwater level. Therefore, artificial recharge of groundwater has become necessary. In 2017-18, a provision of Rs. 80 lakhs have been made for the implementation of the scheme for artificial recharge of groundwater and survey of Groundwater resources.

Map: 16.15 District-wise Projected Groundwater demand up to 2025 in Jharkhand



Source: Compiled from Dynamic Groundwater Resource of India, Central Ground Water Board (CGWB), Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India, June 2017

Box: 16.4 Rail Neer from Jharkhand Mines

The Indian Railway Catering and Tourism Corporation (IRCTC) and Coal India (CIL) are joining hands for a project to use the excess groundwater from the latter's mines to produce purified packaged water being sold under IRCTC's popular Rail Neer brand. A site has been identified at Argada near Ranchi in the coal-rich state of Jharkhand to set up a bottling plant of IRCTC.

Mines have surplus groundwater which comes out as a result of coal extraction. On average, CIL mines produce over 5,700 lakh cusec of water every year, out of which it ends up with a surplus of around 2,036.5 lakh cusecs per year. The surplus groundwater will be supplied from the adjoining coal mines to this plant for purification.

The proposed plan is to put up plants wherever there is surplus water and a few sites have been identified. However, as of now, it will start from Ranchi. The Ranchi bottling plant is expected to produce 1 lakh litres of potable water every day.

Mineral Resources

Jharkhand holds a prominent position in the mineral map of the country. It has huge potentials and deposits of ferrous, non-ferrous, fertilizer, industrial, refractory, atomic, strategic, precious and semi-precious groups of minerals as well as energy resources. It possesses huge deposits of Coal, Iron ore, Bauxite, Uranium, Limestone, Dolomite, Pyroxenite, Quartz and Quartzite. The deposits of China Clay, Fireclay, Magnetite, Graphite, Kyanite, Feldspar, Mica and Decorative Stones are available abundantly. It also has a small amount of Andalusite, Manganese, Chromite, Beryl, Talc, Gold, and Bentonite deposits.

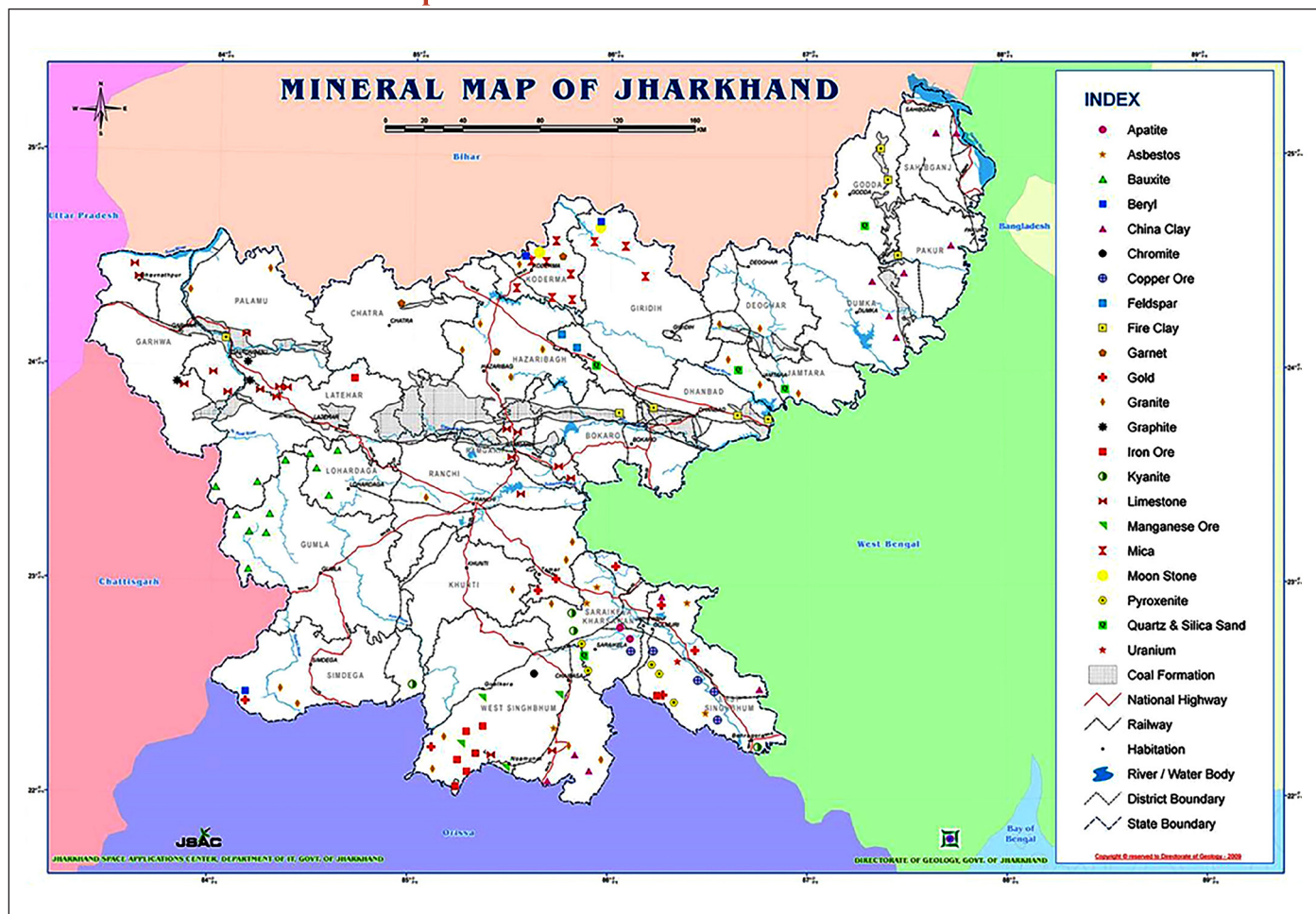
According to the Department of Industries, Mines and Geology, Government of Jharkhand, the mineral resource of Jharkhand constitutes about 40 per cent of the total mineral resources of India. The state holds the 1st position in coal, 2nd position in Iron, 3rd position in Copper ore, and 7th position in Bauxite reserve and it is the only producer of prime coking coal in the country. The annual production of Jharkhand is about 160 million tons for different varieties of minerals, the value of which is Rs. 15,000 crores and it earns mineral revenue of about Rs 3,500 crores. The Department's vision is to use the mineral resources optimally and equitably while keeping strict environmental safeguards in the overall interest of the state and its people.

Table: 16.12 Status of Reserves and Grade of Important Mineral Resources in Jharkhand

| Minerals | Reserves (in Million Tonnes) | Available Grade |
|--|--|--|
| Coal (C) | 82439.52 (as on 9/10/2017) | All Grade |
| Haematite (Fe ₂ O ₃) | 45.96.62 | > 45 % |
| Lime Stone (CaMG)CO ₂ | 745.77 | Cement to Sub Cement Grade |
| Quartzite Silica Sand (SiO ₂) | 40.59 | SiO ₂ 96% |
| China Clay (Al ₂ O ₃ SiO ₃ , 2H ₂ O) | 198.69 | Superior Quality (Except Ranchi Deposits) |
| Quartz (SiO ₂) | 154.76 | > 90 % to 1.85 % |
| Copper Ore (CuFeS ₂) | 288.12 | 1 % to 1.85 % Cu (Approx.) |
| Bauxite (Al ₂ O ₃ 2H ₂ O) | 146.32 | Al ₂ O ₃ (40.55 %) |
| Dolomite (CaCo ₃ , MgCo ₃) | 41.43 | Mostly of All Qualities |
| Kyanite (Al ₂ SiO ₅) | 6.03 | Lapsaburu > 60 % Alumina Other Place 30 to 37% |
| Fireclay | 66.8 | God Quality |
| Graphite (C) | 12.91 | Carbon Contact 3.74 to 25 % |
| Andalusite (Al ₂ SiO ₅) | 4 | Low Grade |
| Apatite (Ca ₅ (PO ₄) ₃ F) | 72 | 9.60 % as P ₂ O ₅ |
| Magnesite (MgCO ₃) | 2.3 | 39 % Magnesite Rest Talc |
| Bentonite (Al,Mg) ₈ (Si ₄ O ₁₀) ₂ (OH) ₁₀ ,12H ₂ O) | 0.81 | Mostly Non-Swelling Type |
| Feldspar (KNaCa) _n Al ₂ O ₃ nSiO ₂ | 1.499615 | Ceramic Grade |
| Chromite (FeCr ₂ O ₄) | 0.73 (Cr ₂ O ₃ -50% Max) | All Grade |
| Asbestos (Mg ₆ (Si ₄ O ₁₀) OH ₈) | 0.154893 | 0.034 as Chrysotile and 0.362 as amphibole Variety |
| Bartes (Barite)(BaSO ₄) | 0.0359 | 0.014 of High Quality in Palamu District |
| Talc/Steatite, Soap Stone, Talc (Mg-3SiO ₁₀ (OH) ₂) | 0.3 | N. A |
| Vermiculite (Mg ₃ Si ₄ O ₁₀) | 0.030048 | N. A |
| Gold (Au) | 0.34 | N.A Au 13.5gms/tones |
| Pyroxenite | 80 | > 30 % MGO 34.35 % SiO ₂ and < 1 % Chrome |
| Manganese ore (MnO ₂) | 13.7 | High Magnetic Content |
| MICA H ₂ KAl ₂ (SiO ₄) ₂ | 1494430 Kg | All Grade |
| Magnetite Fe ₃ O ₄ | 10.54 | High Magnetic Content |
| Ochre | 0.596321 | |
| Gem Stone | N. A | N. A |

Source: Department of Industries, Mines and Geology, Government of Jharkhand

Map: 16.16 Mineral Resources of Jharkhand



Source: Department of Industries, Mines and Geology, Government of Jharkhand

Coal Reserves:

As on 31st March 2016, Jharkhand had the maximum proportion of coal reserves of 26.29 per cent in terms of overall coal reserves of India. An estimated reserve of coal in Jharkhand was 81.2 billion tons.

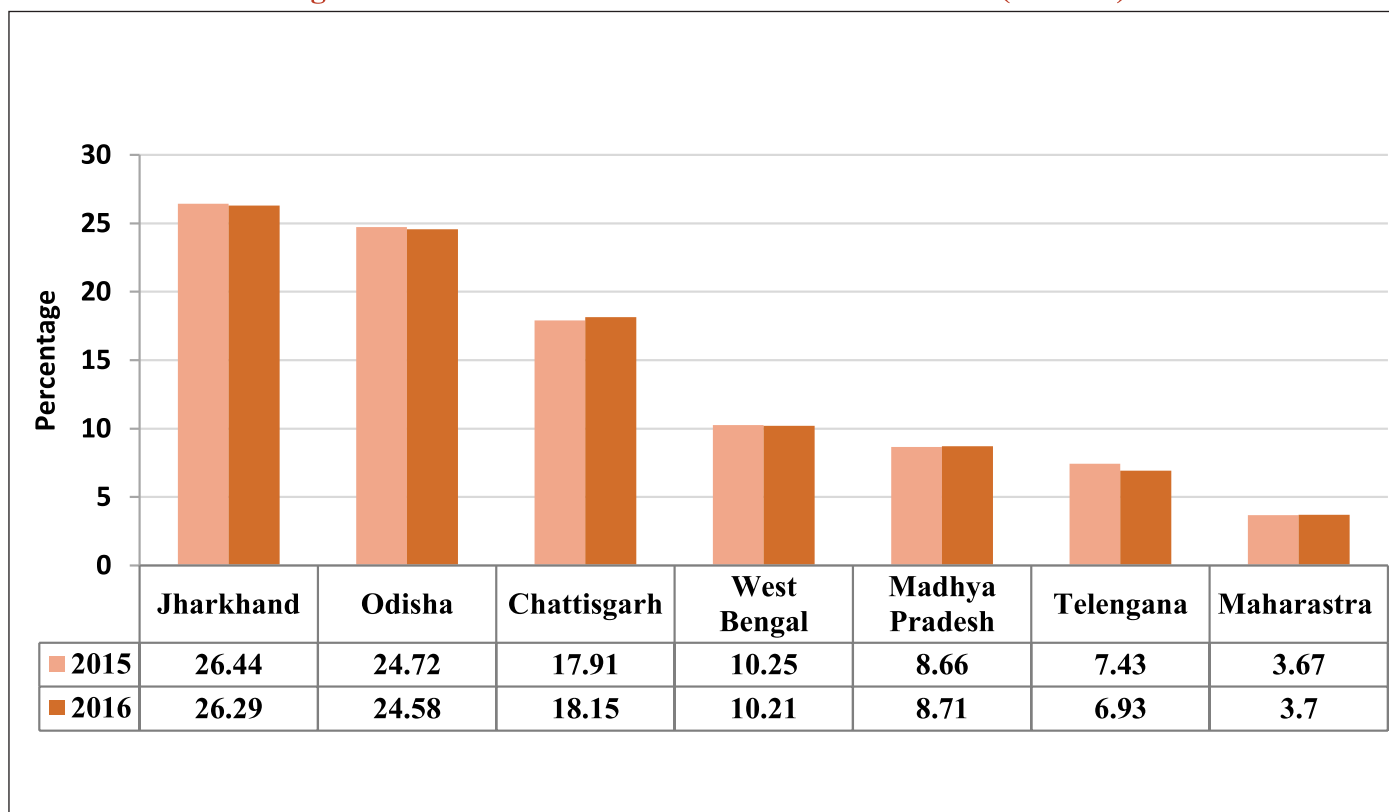
This implies an addition of 0.10 billion tons in the estimated reserves as compared to the status on 31st March 2015. There has been an increase of 0.14 per cent in the estimated coal reserves during the year 2015-16.

Table: 16.13 Estimated Reserves of Coal in Jharkhand as on 31.03.2015 and 31.03.2016

| (In Billion Tonne) | Proved | | Indicated | | Inferred | | Total | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 31-03-15 | 31-03-16 | 31-03-15 | 31-03-16 | 31-03-15 | 31-03-16 | 31-03-15 | 31-03-16 |
| Jharkhand | 41.5 | 42.3 | 33.0 | 32.3 | 6.6 | 6.6 | 81.1 | 81.2 |
| India | 131.6 | 138.1 | 143.2 | 139.2 | 31.7 | 31.6 | 306.6 | 308.8 |
| Percentage Coal Reserve of Jharkhand vis-a vis India | 31.5 | 30.6 | 23.1 | 23.2 | 20.7 | 20.8 | 26.4 | 26.3 |

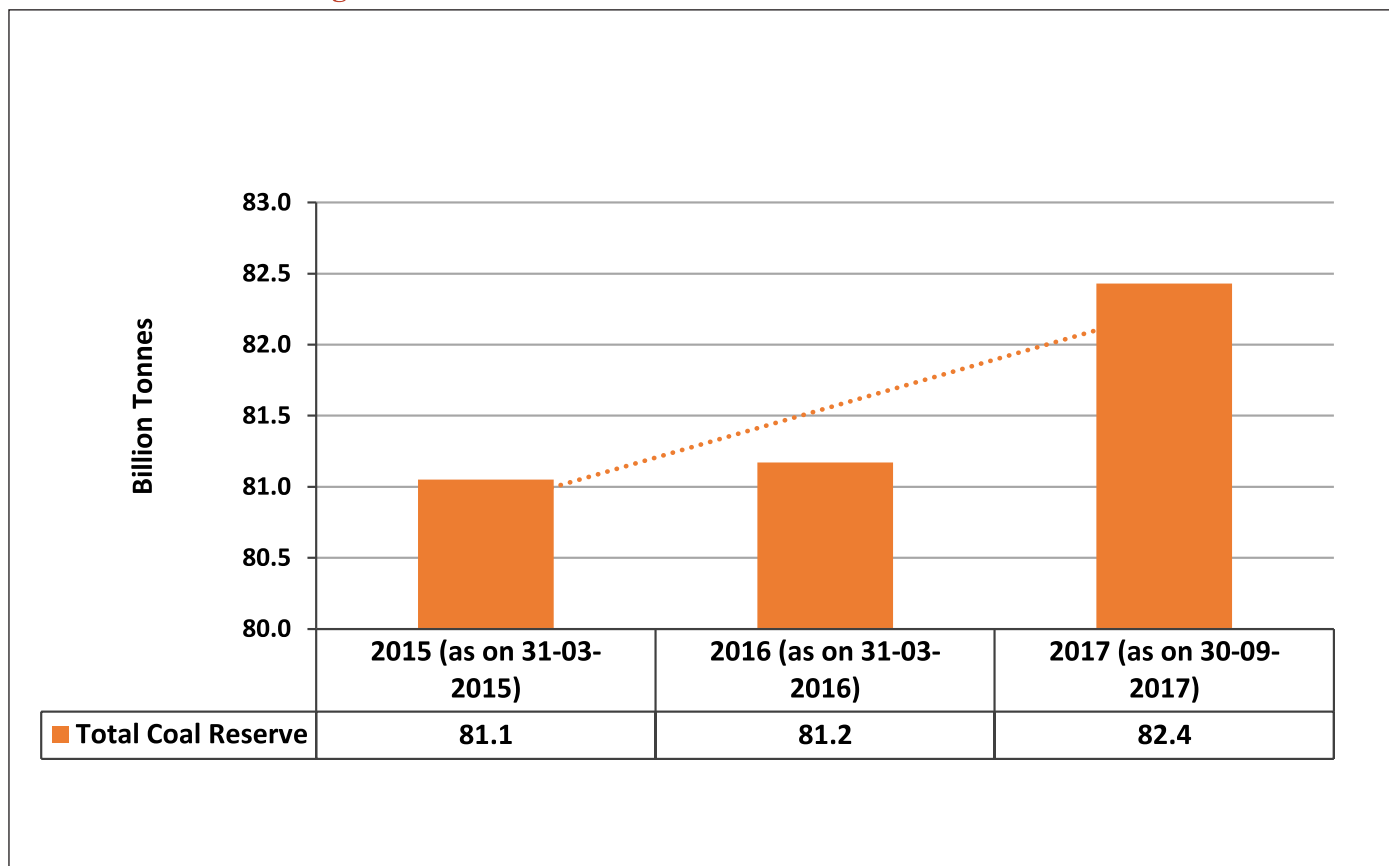
Source: Energy Statistics, 2017, CSO, Ministry of Statistics and Programme Implementation, GoI

Figure: 16.8 State-wise Distribution of Coal Reserve (2015-16)



Source: Energy Statistics, 2017, CSO, Ministry of Statistics and Programme Implementation, GoI

Figure: 16.9 Total Coal Reserve in Jharkhand 2015 to 2017



Source: Energy Statistics, 2017, and Department of Industries, Mines and Geology, Government of Jharkhand

Table: 16.14 Status of Coal Resources of Jharkhand (As on 30/09/2017) (in Million Tonnes)

| Coal Field/District | Proved | Indicated | Inferred | Total |
|---|-----------------|-----------------|----------------|-----------------|
| Raniganj-Dhanbad | 1538.19 | 466.56 | 31.55 | 2036.30 |
| Jharia-Bokaro, Dhanbad | 15127.97 | 4302.09 | 0.00 | 19430.06 |
| East Bokaro-Giridih, Bokaro, Hazaribagh | 3497.43 | 3922.80 | 863.32 | 8283.55 |
| West Bokaro-Ramgarh, Hazaribagh | 3761.25 | 1308.71 | 33.66 | 5103.62 |
| Ramgarh-Ramgarh, Hazaribagh | 756.11 | 742.08 | 58.05 | 1556.24 |
| North Karnpura-Ranchi, Ramgarh, Hazaribagh, Chatra, Latehar | 10319.44 | 6300.92 | 1864.96 | 18485.32 |
| South Karanpura-Ramgarh, Hazaribagh | 5176.08 | 1312.28 | 1143.28 | 7631.64 |
| Auranga-Palamu, Garhwa, Latehar | 352.05 | 2141.65 | 503.41 | 2997.11 |
| Hutra-Palamu, Latehar | 190.79 | 26.55 | 32.48 | 249.82 |
| Daltonganj-Palamu, Latehar, Garhwa | 83.86 | 60.10 | 0.00 | 143.96 |
| Deogarh-Deogarh | 326.24 | 73.60 | 0.00 | 399.84 |
| Rajmahal-Pakur, Dumka, Godda | 3211.18 | 11219.06 | 1691.82 | 16122.06 |
| Total | 44340.59 | 31876.40 | 6222.53 | 82439.52 |

Source: Department of Industries, Mines and Geology, Government of Jharkhand

According to the Energy Statistics, 2017, the states of Jharkhand, Odisha, Chhattisgarh, West Bengal, Madhya Pradesh, Telangana and Maharashtra accounted for 98.58 per cent of the total coal reserves of India. In terms of overall coal reserves in India, Jharkhand has the maximum share of 26.29 per cent as on 31st March 2016, which is followed by the state of Odisha 24.58 per cent.

As on 30th September 2017, the state's coal reserves have been augmented to 82.4 billion tons, which is an increase of 1.6 per cent during the year 2016-17 and 1.7 per cent during 2015-17. The overall trend in total coal reserves of Jharkhand has witnessed an increase from 2015 onwards. The proved reserves of coal in Jharkhand were 53.8 per cent, the indicated reserves of coal were 38.7 per cent and the inferred reserves were 7.5 per cent during 2017 (up to 30th September 2017).

Conclusion

The evaluation of the forest cover according to the ISFR 2015 revealed that the percentage of the total area under forest cover out of the total geographical area of the state has increased from 29.45 per cent in

2013 to 29.48 per cent during 2015. The percentage change in Very Dense Forest cover during 2013-15 has also witnessed an increase of 0.04 per cent. Although, the satellite based information about forest fire alerts in Jharkhand during 2012 to November 2017 witnessed an increasing trend of fire occurrences over the period of time. But the State Forest Department has implemented innovative afforestation programmes which aim at conserving and managing the existing forest cover along with replenishing the loss of green cover. The Department of Forest, Environment and Climate Change, Government of Jharkhand has planned and targeted innovative policy formulation for afforestation. In the state, the Department of Forest under the guidance of Ministry of Forest and Environment plans and implements various programmes for conservation and renewal of the green cover in Jharkhand.

The State Water Resources Department is engaged in developing all types of water resources in the state of Jharkhand. During 2013-14 to 2017-18, the irrigation potential created in Jharkhand has improved significantly and such progressive trend has also been observed in the utilization of the

irrigation potential. There has been about 18 per cent increase in the irrigation potential created through major and medium irrigation projects during 2013-14 to 2017-18. In terms of groundwater resources, the groundwater development in Jharkhand has witnessed an improvement. The annual replenishable groundwater resources of Jharkhand has increased by 3.96 per cent during 2011-13. Similarly, the net groundwater availability has also observed a positive temporal change of 3.99 per cent. The net groundwater availability of Jharkhand has increased from 5.76 BCM in 2011 to 5.99 BCM in 2013. The annual groundwater draft for irrigation, domestic

and industrial uses has witnessed a decline of 27.42 per cent and the stage of groundwater development in Jharkhand has also witnessed a decline from 32 per cent in 2011 to 23 per cent 2013.

According to the Department of Industries, Mines and Geology, Government of Jharkhand, the mineral resources of Jharkhand constitute about 40 per cent of the total mineral resources of India. The total coal reserves of Jharkhand have increased by 1.7 per cent from 2015 to 2017. In terms of overall coal reserves in India, Jharkhand has the maximum share of 26.29 per cent as on 31st March 2016.

XVII

**TOURISM,
ARTS, CULTURE,
SPORTS AND
YOUTH AFFAIRS**



Beautiful waterfalls, diversified wildlife, sparkling lakes, thrilling valleys, dense forests, sacred places, enormous minerals resources, distinct tribes with a unique art and culture gives us a glimpse of 'Jharkhand', the 28th State of India which was formed on November 15th, 2000. Apart from the natural beauty ubiquitously prevalent in the State, Jharkhand's sculptures, dance, paintings, languages, handicrafts are one of a kind which makes it rare for rest of the world. The lush greenery bestowed upon the State due to its pleasant weather adds a glow to its beauty. The luxuriant vegetation cover comprising of a rich variety of flora and fauna makes the State an exceptional biodiversity and tourism hotspot.

Jharkhand, the land of the freedom fighter Birsa Munda is home to several tribes who have their unique socio-cultural identity. Oraon, Santhal, Munda and Ho are some of the major tribes. Jharkhand is also a home to a number of celebrities who are renowned all over the world in the fields of sports, art, culture, etc such as MS Dhoni, Priyanka Chopra, Jhanu Hansda, Aruna Mishra, Premlata Agarwal, Jaipal Singh Munda, Anuj Lugun, Mukund Nayak, Balbir Dutt and so on and so forth. With an exciting range of topography and culture, Jharkhand has a wide scope for developing tourism related activities in the spheres ranging from nature and adventure tourism to religious and cultural tourism.

TOURISM

According to the estimates of Expedia Vacation Deprivation Report, 2016, 77 per cent of the Indians love to explore new places, and the propensity of Indians to spend on travel has clearly increased as observed in a survey by online travel portal Yatra.com in the year 2014. What can be a better place than Jharkhand to connect with nature when most of the Indians (48.1 per cent) prefer a retreat in the lap

of nature as per the survey of Yatra.com (2014). Cold winds and splash of water untie oneself from anxiety and distress and on the other hand, the greenery and biodiversity attach oneself to the Mother Earth. Jharkhand is a very enthralling state especially for the visitors as it has a wide range of tourism options for the tourists to choose from.

The State Government has the following broad objectives in developing the tourism in Jharkhand:-

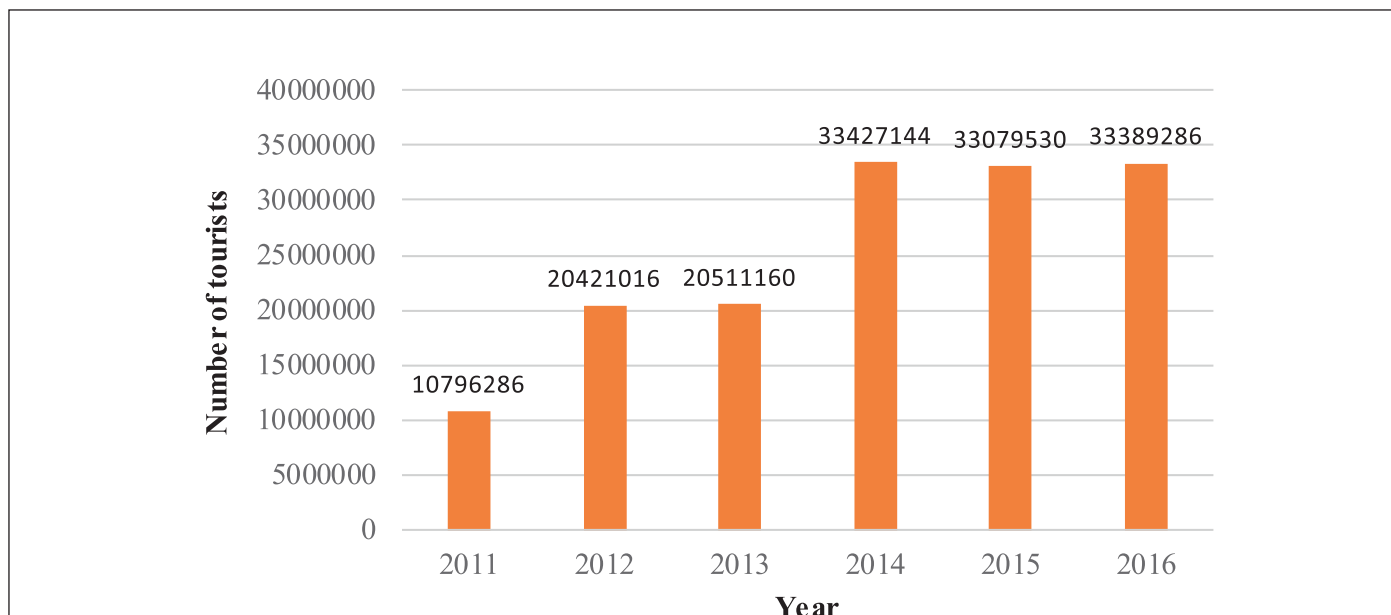
1. To include tourism development on the priority list.
2. To establish Jharkhand as the best destination for tourists in comparison to the other states.
3. To improve the current tourist facilities and develop them according to the modern needs.
4. To establish the infrastructure of international level for tourism development.
5. To implement tourism development program while promoting effective publicity for tourism development

Domestic Tourist Flow in Jharkhand during 2011-2016

With the passing years, tourists' inflow in Jharkhand has increased which is a mark of better opportunities in terms of revenue generation, employment, etc. The increase in tourist's arrivals signifies the preference for Jharkhand as their vacation destination.

The inflow of tourists in Jharkhand is constant but it has seen a tremendous change in the last 3 years as more than a crore population is touring the state throughout a year. 3,34,27,144 travellers have visited the state during 2014 which then slightly decreased to 3,30,79,530 during 2015 and then again increased to 3,33,89,286 during 2016 (Figure 17.1).

Figure 17.1: Domestic Tourist Flow in Jharkhand during 2011-2016



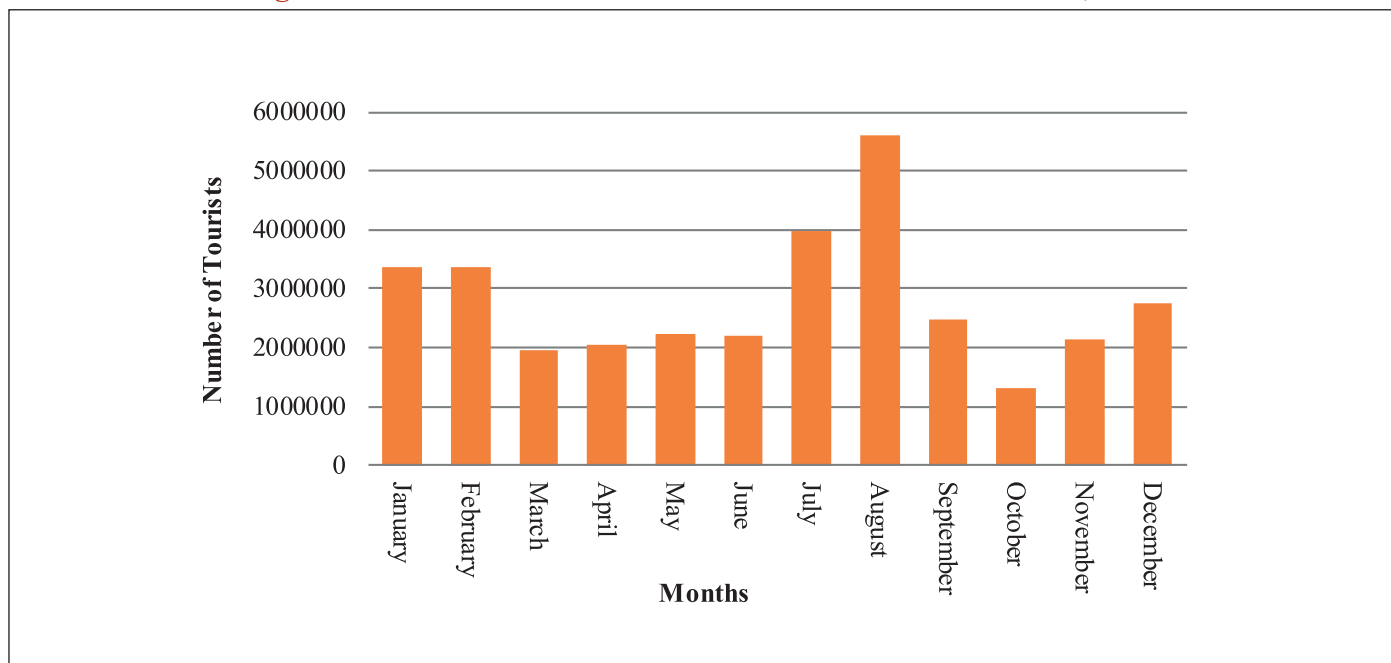
Source: Ministry of Tourism, Govt. of India. (14012), (ON579), (ON1153), Press Information Bureau (PIB)

Status of Domestic and Foreign Tourist Flow in Jharkhand During 2016

Although the domestic tourist’s flow in the State is persistent throughout the year, the highest number

of tourist visits has been noted during the monsoon season. Around, 39,69,783 tourists have visited in the month of July and 56,04,931 visitors have come in the month of August (Figure 17.2).

Figure 17.2: Number of Domestic Tourist Visits in Jharkhand, 2016



Source: Directorate of Tourism, Govt. of Jharkhand. (LS)

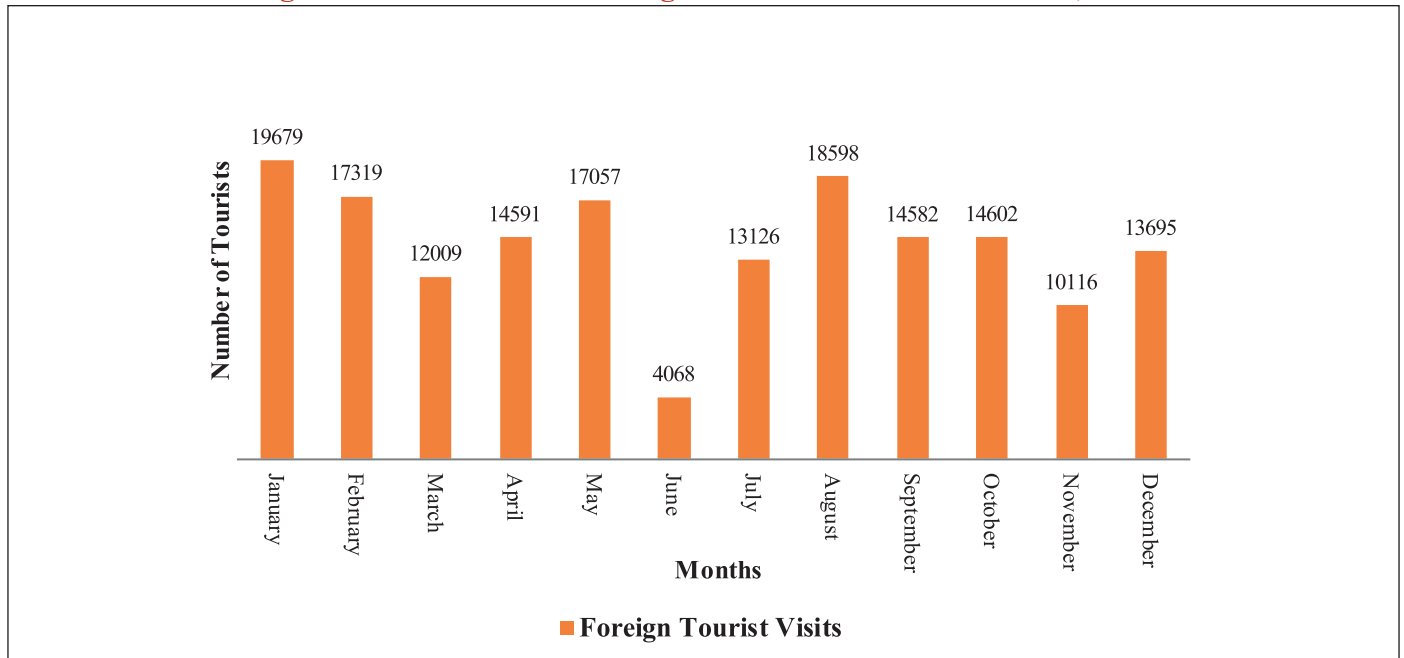
As domestic tourists, foreigners also visit the land of tribes persistently throughout the year, although the volume of foreign tourists is larger during the

Monsoon (August) and winter months (January-February). Interestingly, a significant volume of foreign tourists has also been noted during the

summer month of May as 17057 foreign tourists have visited the State in the month of May (Figure 17.3). According to Momentum Jharkhand Investors Summit 2017, Government of Jharkhand (www.

momentumjharkhand.com), the tourism sector expects to present better growth rates of 8 per cent and 9 per cent for domestic and foreign tourist arrivals respectively.

Figure 17.3 : Number of Foreign Tourist Visits in Jharkhand, 2016



Source: Directorate of Tourism, Govt. of Jharkhand. (LS)

Schemes of State Government

Jharkhand government has taken initiatives for the development of Tourism sector and also for providing better facilities to the travellers through various schemes which are discussed as follows :

1. Tourism Publicity

Jharkhand Government has planned to utilize the medium of print media, electronic media, films, websites, etc. to promote and broadcast the tourism of Jharkhand at national and international tourism fairs, festivals, exhibitions, etc.

2. Training and Skill Development

The state government has proposed to train and employ the young generation in Tourism field under the scheme of *Hunar Se Rojgar*, especially for people belonging to BPL, SC,

and ST category by the Government/Non-government organization working in the field of Tourism with regard to providing hospitality to the guests.

3. Computerization and Modernization

Through computerization and modernization, the state government aims to promote the use of modern means so as to improve the connectivity of the different tourist complexes and information centres.

4. Strengthening of Tourist Information Centre

For the smooth functioning of Jharkhand's tourist information centre in the cities of Kolkata, Delhi, Ahmedabad, Jaipur, the tourists from these cities will be provided with all the information at those centres to make their visits joyful and memorable.

5. **Grants-in-aid to Hotel Management Institute, Food Craft Institute, Tourism Development Authority**

It has been proposed to establish a national level Hotel Management Institute at Brambe (Ranchi) with the help of Government of India in which the state government will provide the financial assistance according to the requirements. A proposal has also been made to establish the Food Craft Institute at Deoghar. As a result of the establishment of these institutes, the trained human resource will also be made available in the hotels and guesthouses.

Further, Grants-in-aid will also be provided to Tourism Development Authority for the development of the pilgrim's areas like *Baba Baidyanath Dham*, *Baba Basukinath* and *Parasnath*.

6. **Monetary Assistance to Jharkhand Tourism Development Corporation for Construction, Upgradation, Management, Cleanliness, Publicity, etc.**

It has been proposed to provide financial aid to the Jharkhand Tourism Development Corporation for construction of new tourism infrastructure, renovation of old infrastructures, management of tourist places, cleanliness, publicity, transportation, etc.

7. ***Mukhyamantri Tirth Darshan Yojana***

The department began this scheme with an aim to provide the elderly poor people of the state, a tour to the Country's vital religious and tourist places. The state has signed a Memorandum of Understanding (MoU) with the Indian Railway Catering and Tourism Corporation (IRCTC) for this.

Box 17.1: Chandil Dam will prove to be a world-class tourist destination

The state government plans to develop the Chandil Dam as the world class tourist destination site. For this, an amount of Rs. 200 crore has been proposed for the development to be made in and around the dam. The development work will include renovating the island located in the middle of the dam, boating facility, constructing restaurants, community toilets, sheds, parking facility and watch towers near the dam area. For this purpose, six and a half acres is being provided by the district administration. It is being expected that this will help in creating employment opportunity for the people who have migrated to other places for livelihood.

Integrated Tourism Development (New and Ongoing schemes)

1. Adequate development of Tourism Circuits and Destinations

The tourism department has proposed to develop a basic facility of the supreme level, wayside amenity, connectivity, etc near the various attractive tourist destinations of Jharkhand.

2. Development of Religious/Spiritual Tourism

There are many religious/spiritual destinations in the state of Jharkhand which is famous throughout the World such as Deoghar, Parasnath, Rajrappa, Ramrekha Dham, Aanjan Dham, Rikhiya, Yogada Satsang (YSS) Ranchi, etc. Such places will be developed to lure more and more tourists from different places.

3. **Development of Heritage Tourism**

The historic places like Jama Masjid of Rajmahal, the fort of Chero Kings (Medininagar), Padma Palace of Hazaribagh, etc. will be developed as per the requirement on the basis of Public-Private Partnership.

4. **Rural Tourism**

Jharkhand has a wide scope in Rural Tourism and for this; the selected villages of different regions of the state will be developed to provide the necessary basic facility to the tourists while introducing them with the rural environment and their living condition.

5. **Construction, Renovation and Upgradation of Tourist Complexes/Hotels**

It has been proposed to renovate, upgrade and construct the existing and new tourist complexes and hotels, for providing a better accommodation facility to the tourists in the state.

6. **Land acquisition/Purchase/Transfer**

The acquisition, purchase and transfer of land have been proposed as the land is required to develop the different tourist spots of the state and for this, proper financial provision is made.

7. **Wayside amenity**

A proposal has been made to provide better tourist facilities at State and National Highways. A convenience of parking, restaurant, toilet, etc will be provided in this regard. Assistance from Public-Private partnership will also be taken.

9. **Purchase of equipment for Water Sports**

The state has a wide scope for adventure tourism activities at the various waterfalls, dams, lakes, etc. For this, it has been proposed

to purchase equipment for water sports like motor-boat, paddle boat, jet, etc.

10. **Consultancy service**

The need of consultancy services is required for preparing the detailed project report to develop the different attractive tourist places of Jharkhand. Other than this, consultancy services are also proposed for conducting the research studies, etc.

11. **Incentives under State Tourism Policy**

Tourism has been given the status of Industry in Jharkhand. It has been proposed to provide various promotional offers to the organization and persons who invest in the internal tourism sector under the state policy. A transparent, effective and easy procedure will be made in this regard.

Box 17.2: Jharkhand – A land for Tourists and Investors

Jharkhand Tourism secretary Rahul Sharma has addressed the Jharkhand's Tourism in the Infocom, 2017 which was held in Kolkata. He said that now Jharkhand has become a classic destination for Investors and Tourists. The government of Jharkhand is continuously making efforts in improving the tourism in Jharkhand.

The Secretary of Jharkhand's Tourism believes that "what Tourism did to Goa; can do to Jharkhand as well". According to him, Connectivity isn't an issue anymore and where there were four flights going out of the State in the year 2014, now there are as many as 32. The Government has plans to develop the Koel riverfront and local tribal villages along the lines of Shaam-e-Sarhad village of Gujarat and to develop Tilaiya Dam as stopover destination on Ranchi-Patna highway.

With the objectives come the challenges. There is a few defiance of the Government in expanding the Tourism in Jharkhand such as safety of the tourists; to provide the basic facilities, transportation facility and mobile network/telephone services till the State's final tourist places.

The Jharkhand Tourism Policy, 2015 offers a range of incentives aimed at attracting investments in:

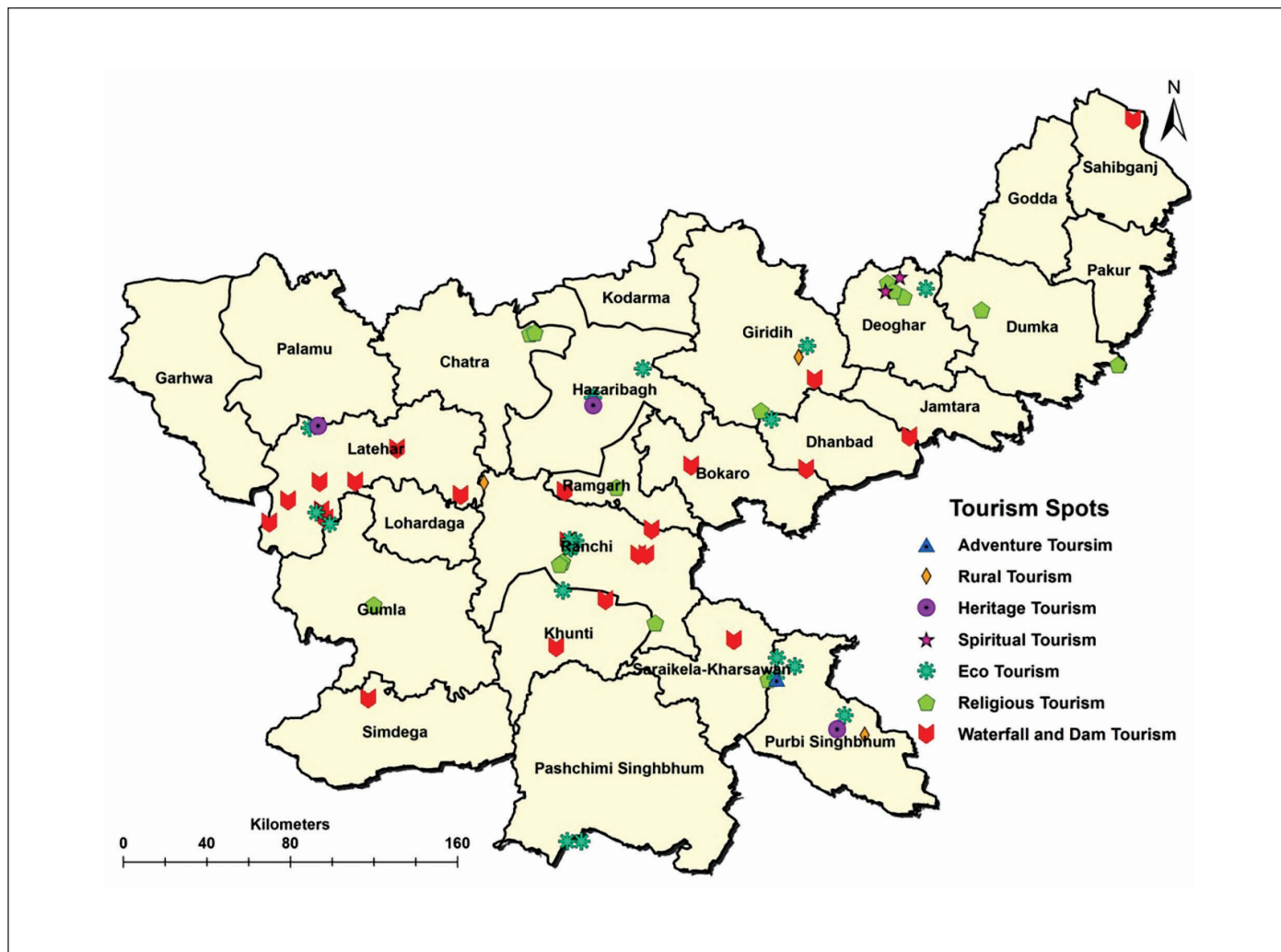
- Wayside amenities such as hotels, motels, bus terminals, etc. under PPP model
- Development of tourist spots with untapped

potential

- Upgradation, operation and maintenance of tourist complexes are niche areas of investment
- Enrichment and development of Tourism circuits

Jharkhand has various tourist spots in its different regions and every tourist place is unique. There are mainly seven categories of tourism in Jharkhand i.e. Rural tourism, Heritage tourism, Adventure tourism, Spiritual tourism, Eco tourism, Religious tourism, and Waterfall and Dam tourism. Every tourist's spot has a unique attraction.

Map 17.1: District-wise Location of Different Tourism Spots in Jharkhand



Source: Compiled using data from the department of Tourism, Government of Jharkhand

Table 17.1: List of Tourism Spots in Jharkhand

| | |
|---------------------------|--|
| Religious Tourism | Deori Mandir, Baidyanath Dham, Jagannath Mandir, Dhurwa, Ranchi, MaaChhinmastia Devi Mandir, Parasnath, Basukinath Dham, AnjanGram, Ranchi Hill (Pahari Mandir), Tapovan Hill, Bhadrakali Mandir, Itkhori, Rankini Mandir, Sun Temple, Muluti (Temple Town), Nandan Pahar, Naulakha Mandir, Deori Mandir. |
| Rural Tourism | Amadubi, Mccluskieganj, Deuridih |
| Heritage Tourism | Birbir Megaliths, Palamau Fort, Bibhuti Bhushan's House |
| Waterfalls and Dam | Sarju Valley, Kanti Waterfalls, Indra Waterfall, Lower Ghagri, Lodh Waterfalls, Dassam Falls, Hundru Fall, Batinda Waterfall, Jonha Fall, Sita Fall, Usri Falls, Suga Bandh Waterfall, Upper Ghagri, Moti Jharana, Panchghagh Falls, Mirchaiya Waterfalls, Patratu Dam, Tilaiya Dam, Tenughat Dam, Masanjor Dam, Chandil Dam, Kanke Dam, Maithan Dam |
| Spiritual Tourism | Satsang Ashram and Rikhiya Ashram |
| Adventure Tourism | Water Sports |
| Ecotourism | Nakshatra Van, Sunrise Point, Magnolia Sunset Point, Birsa Dear Park, Dalma Wildlife Sanctuary, Burudih Lake, Saranda Forest, Jubilee Park, Hazaribagh National Park, Dimna Lake, Tagore Hill, Ranchi Lake, Rock Garden, Kiriburu, Trikuti, Suraj Kund, Topchanchi Lake, Khandoli, Betla National Park |

Source: Department of Tourism, Government of Jharkhand

Tourism plays an important role in generating the revenue of the state, providing employment opportunities to the local residents as well as de-stressing the tourists from their hectic lifestyle. Jharkhand has an extensive scope in tourism as it has different kinds of tourist places in different areas of the State. With the passing years, the State Government has taken a number of initiatives to develop the tourism and is promoting it within and outside the State.

ART AND CULTURE

The art and culture of every state and every region is rare and distinct from each other. The art and culture of a state symbolize its beauty, history, tradition, etc. Like any other state, Jharkhand also has its stories

to tell through its art and culture. Different forms of arts are practised in Jharkhand like *Chador Badoni*, *Dhokra art*, *Jadupatiya*, bamboo crafts, wood crafts, metal works, *Paitkar paintings*, stone carvings, etc. Every art in Jharkhand is different from each other and have a unique method of bringing it into existence.

On the other hand, the culture of the state conveys the ideas, practices followed, and social behaviour of a particular person or the society. Jharkhand's culture expresses its emotions through the medium of songs, dance and plays and Government of Jharkhand is making a tremendous effort in sustaining the culture of the state.

Box 17.3: Two jewels of Jharkhand - Mukund Nayak & Balbir Dutt

Mukund Nayak, the well-known folk artist has been honoured with the prestigious Padma Shri award in the year 2017. Mukund Nayak has given the folk-dance chants an international identity. He has never taken the training of this art but has learnt it from the Akhra of his village.

Balbir Dutt the founder editor of the Ranchi express and the editor of weekly 'Jai Maatribhumi' and the daily 'Deshpran' also received the Padma Shri award in the year 2017. More than 8500 editorial articles, essays and comments are in his name and many of his articles have been published in research-based journals. He is a member of 'Editors Guild of India' and 'National Union of Journalists' and is currently a Director of National News Agency.

The Government has proposed to organize the following cultural programmes to promote the cultural activities in the State: -

- **Organization of 'Saniparab' every Saturday at District headquarters**

The organization of 'Saniparab' every Saturday in Ranchi, Lohardaga, Hazaribagh, Deoghar, Latehar and at other district headquarters are taking place successfully and due to the popularity of 'Saniparab', it is proposed to organise it at every district headquarters. The local artists get monetary help and the platform to present the cultural programme based on the folk culture through the medium of the said programme.

- **Organization of 'Subah-Sabere' at district and State level**

'Subah-Sabere' programme is organized every Saturday near the statue of Mahatma Gandhi in Morabadi (Ranchi) by the Department. It is planned to organize it at district level too. The local artists

usually present light music, folk music, hymn, etc. where they get the stage to progress.

- **Organization of Cultural programmes in the different traditional fairs of the State**

The residents of the state want the cultural programme to be held in *Shravani Mela*, *Murma Mela*, *Jagannath Mela*, *Ramrekha Mela*, *Saras Mela*, *Palamu Kila Mela* and fairs organized in the event of *Makar Sankranti* as they are very popular within the state. The cultural programme was held in such fairs in the financial year 2015-16 and 2016-17.

- **Interstate Cultural programme**

The organization of interstate cultural programme is very significant for each state. Under this scheme, each state sends their cultural troupe to other states so that cultures of the different states could be exchanged. The cultural troupe of Jharkhand is being sent to *Lok Rang Utsav*, Jaipur, Rajasthan, *Lok nritya Mela*, Puri, Odisha, *Dussehra Utsav*, Kullu, Himachal Pradesh, *Dussehra Mela*, Mysore, Karnataka.

For the financial year 2017-18, it was planned to make a potential cultural troupe and send it to *Suraj Kund Mahotsav* of Haryana under the 'Ek Bharat Shreshth Bhaarat' scheme of central government so that exchange of cultures could take place, and state and the artists could get some benefit out of it.

- **Organization of Cultural programme at every district on different occasions**

Different kinds of occasions are celebrated in every district of the State. Previously events like *Sarhul Utsav*, *Karma Utsav*, *Tusu Parv*, *Vishwa Adivasi Diwas*, *Santal Utsav*, etc have been organised to promote these traditional occasions of State. Further, it has been proposed to organise such events at State's level in the financial year 2017-18 as well.

- **Organization of festivals in different districts of the State**

To encourage the cultural activities and to spread awareness, festivals in districts at the local level in small form are being celebrated. *Bhado Mahotsav*, interstate drama festival, *Janjatiyaa Adivasi Utsav* and foundation day of the district are being organised.

- **Cultural programme and exhibitions on the occasion of Republic and Independence Day**

The cultural programme is based on national integrity and on the eve of Republic or Independence Day, the cultural programme is organised. On the occasion of Republic Day, 2 tableaux are paraded in Ranchi and Dumka.

- **Organization of musical programme at State level**

Various reputed artists live in the state of Jharkhand. The art of classical, semi-classical song and dance is present in the state. The state musical programme is organized with an aim to inspire the artists.

- **Organization of different Jayanti ceremony**

The ceremony is organized during the birth anniversary of dignitaries like *Shahid Shekh bhikhari Jayanti*, *Saint Ravidas Jayanti*, *Kartik Oraon* and *Dr.Ramdayal Munda Jayanti* in their remembrance.

- **Organization of cultural programme at a short notice**

There are various cultural programmes that are organized at short notice and which were not determined in advance but are very important in nature.

- **State's Foundation Day**

On the occasion of Jharkhand's foundation day, the art of singing, dancing and playing are performed by the eminent artists and the prize for first, second and third position in a competition is given to the best performances. The magnificent cultural programme is also presented by the renowned artists of the state and the nation at Capital headquarters.

Box 17.4: Literary Meet – A Medium to Connect with The Society

A literacy meet was organized by Tata Steel's on 1st and 2nd December 2017 in the State capital. The main purpose of the event was to support the promotion of literature among the literary minds of the society; be a custodian for supporting and fostering new ideas in the society and in the field of literature, culture and arts; connect with the youth and the intellectual minds of the society through such initiatives; and create a platform for the intellectual minds of the society to discuss and deliberate on the issues pertaining to the Indian youth, society, economics and policies.

Many notable people participated in the meet and expressed their views and opinions on the importance of literary meet. *Sahitya Akademi* award-winner Ashok Vajpeyi emphasized the significance of buying books to keep the literature alive. Former BBC Indian journalist Mark Tully expressed that such literary meets help in reviving reading habits and also instil an urge to buy books.

It was a 2 day meet where celebrities like Kirti Kulhari, Gautam Chintamani, Aniruddha Roy Chowdhury, Sharmila Tagore, Rajdeep Sardesai, Bishen Singh Bedi, former Union minister Jairam Ramesh and Economist Jean Drèze had put their valuable inputs.

Archaeology

The objective is to conserve and develop the archaeological sites of the state. The government has identified various sites for excavation, protection, development as well as for the construction of the heritage gallery.

Art Gallery, Audrey House, Ranchi

Audrey House is one of the oldest buildings in Ranchi and is running under a Trust established by the Government of Jharkhand. The building is more than 150 years old and was made up of woods and mud. It was built in the year 1855-56 by Captain

Hanitan, a British officer and it is of the immense heritage significance.

It is being safeguarded and developed by the Department of Tourism, Arts, Culture, Sports and Youth Affairs and used as an Art Gallery to provide a stage to the artists. The Honourable President of India inaugurated this cultural building on 09.01.2016 and it has been dedicated to the people of Jharkhand.

It is being proposed to provide monetary assistance for payments of the hired staffs, purchase of necessary equipment, etc. by the department as it is functioning under a Trust currently.

Box 17.5: Films opportunities in Jharkhand

The State Government is assisting in filmmaking and filmmakers who are visiting Jharkhand to shoot films. It is giving exposure to the film fraternity of Jharkhand. The chairman of the Jharkhand Film Development Corporation Anupam Kher believes that there is a need for developing a film city in Jharkhand and stated that with the formation of the film corporation, numerous filmmakers would get the opportunity to shoot their films in the State as the State Government is extending its support towards it. Further, during an another programme, the honourable Chief Minister of Jharkhand Raghubar Das and Bollywood Actor Arjun Rampal have expressed their view that the State is suitable for shooting of the films and place like Patratu is of the fine location.

The arts and culture give us a glance at the state's tradition, its values, and its importance. Jharkhand government is working immensely to conserve the art and culture of the state and introducing it to others through the various schemes made in this regard. The Department is taking an initiative to enlarge the opportunities of artists by providing them monetary support and a platform to show their talents.

SPORTS AND YOUTH AFFAIRS

Different sports competitions are organised at different levels in Jharkhand from the Panchayat to the State level in order to promote sports and youth activities in the state. The playfields at the Panchayat level and stadium at the Block/District

level are being constructed, so that the young talent is promoted and sporting activities are supported. The Youth & Sports Policy has also been notified by the Government in order to amplify the sports & youth activities in the state.

To impart training to the selected players in various sporting events, 25 Residential and 82 Day Boarding Sports Training Centres are being constructed and 20 new day boarding sports training centres have also been sanctioned. A Sports Academy has been established in Jharkhand between Government and Central Coal Fields Ltd. by PPP mode which is currently in operation and students; both boys and girls have enrolled in it.

Box 17.6: Run for your Health

The Department of Tourism, Arts, Culture, Sports and Youth Affairs is going to organize the Run-O-Thon in the state capital on January 21, 2018, and in Bokaro on 11th February 2018. It has a motto to make people aware regarding Health. There will be 3 categories of races: 21 km, 10 km and 5 km. In the 21 km race; prize money of Rs. 51,000, Rs. 31,000 and Rs. 21,000 will be awarded to the first, second and third position holders respectively. In the 10 km race; prize money of Rs. 31,000 to the first position holder, Rs. 21,000 to the second position holder and Rs. 11,000 to the third position holder will be awarded. The men and women in the Run-O-Thon will be honoured distinctively.

Continuing Schemes of the State Government

1. Sports Welfare Fund/ Scholarship /Honour/ Ex. Sports Person Pension/Insurance

This scheme is proposed to:-

- facilitate and promote the deserving, talented and bright players of Jharkhand by providing the cash prizes as per their achievement,
- provide financial assistance in circumstances of poverty and deficiency to the players and their dependents,
- provide financial assistance for the purchase of sports kits/sports equipment,
- provide monetary help for medical assistance to players in case of injury,
- provide financial aid to the dependants of the player in case of death, etc.

It is also proposed to pay a sum of Rs. 5000/- per month as pension to 500 ex-sports persons who are currently unemployed and have crossed the eligibility age of employment.

2. Skill Development

It is been proposed by the Government to provide training at the Institutes of national level to the players, sports trainers, artists, etc. for providing them employment in the field of arts, culture, games, etc.

3. Preservation, Renovation & Beautification of Stadium, Sports Hostel and Cultural Building

Stadiums, Hostels and Cultural building are being constructed since the formation of the state and till now 91 properties have been completed. The need for renovation, preservation, maintenance and beautification is required in most of the buildings.

During the 34th National Games, many cultural buildings and sports stadiums were constructed; they require proper maintenance so that these stadiums and building are properly protected.

4. Creation of I.T. Application

The Department proposes to take the support of the Department of Information & Technology for the creation of website on wiki mode, listing of all the beneficiary schemes online, etc. as the department has the extensive task of identification of sports talent, achievement related to art and culture, creation of the vast database and also documentation of tangible and intangible art forms, a lot of which is becoming extinct.

5. Grants to Sports Promotion Activities and consultancy

- **Sports Academy, Sports University and Centre of Excellence:**

An agreement has been made between Sports Academy, Sports University and Central Coal Field Ltd. in PPP mode. The talented players from different sports are being selected

from various district headquarters under the scheme. Exclusive facilities and training are being provided to the selected talented players in these centres. The meritorious players will be provided modern technical training.

Centre of Excellence:

The sports persons mainly from two sports Archery and Hockey will be selected from Day Boarding and Residential Training Centre and will be trained at the Centre of Excellence established in the premises of Mega Sports Complex, Hotwar for Olympic Games 2020, 2024 and 2028. The facilities of food, lodging and training of supreme level will be made for the players. National and International level trainers shall be recruited on contractual basis at desired honorarium.

- **Grants to Sports Association:**

This scheme provides grants for the organization of various sports competition, promotion of sports, participation of players at the competition of the National and International level, etc. by Sports Association recognized by the Indian Olympic Association.

- **Grants to Sports Authority of Jharkhand Corpus Fund:**

The corpus fund is created for Jharkhand Sports Authority. Under this scheme, the interest earned from the proposed fund will be used in the maintenance of the infrastructure constructed and maintenance of sports structures at the district level.

- **Grants of Ram Krishna Mission for Libraries:**

The amount of Rs. 8,00,000 will be provided as a financial aid to the Ram Krishna Mission for the establishment, operation and other related work of libraries.

- **Grants to consultancy:**

An amount of Rs. 12,00,000/month is been proposed to be given to the concerned company for the formation of the website to carry out the activities related to scholarship, cash prizes, award, honorarium, grant to sports association, purchase of sports equipment, sports kit, medical, pension, insurance to ex-sports person, etc. of the state's players.

Box 17.7: Jharkhand – An Eco-Tourism Destination

During the Jharkhand Momentum and Jharkhand mining show, the chief minister and other delegates have tweeted regarding tourism and the sports of Jharkhand. The chief minister of the State tweeted “We’ll develop a medical tourism in the State and to boost the Medical Tourism, Jharkhand offers various incentives for setting up of Medical Colleges”. On the other hand, Piyush Goyal tweeted ‘by 2018, 1400 students will enrol at Jharkhand Sports University. A Government of India to expedite the Sports University Project in Jharkhand’.

It was also tweeted that untapped treasure of flora & fauna waits for you, to experience and enrich self with beauty & benefits of Nature. Jharkhand is an eco-tourism destination which is endowed with beautiful waterfalls and excursion trails. With a huge forest land & incredible love for trees, Jharkhand technically is the lung of India.

Table 17.2 : Department of Tourism, Art, Culture, Sports & Youth Affairs
(Art, Culture, Sports & Youth Affairs Division)

(Rs. in Lakhs)

| Sl. | Name of Schemes | Outlay 2017-18 | Flow to | | |
|-----------------------------------|--|-------------------|----------------|---------------|----------------|
| | | | TSP | SCSP | OSP |
| 1 | 2 | 3 | 4 | 5 | 6 |
| Sports & Youth Affairs | | | | | |
| 1 | Sports Welfare Fund/Stipend/Honour/Ex Sports Person Pension/Insurance – 2204 | 550 | 290 | 30 | 230 |
| 2 | Sports Training Centre/Talent Hunt/Sports Kit/Equipment – 2204 | 550 | 250 | 50 | 250 |
| 3 | Youth Activities (Youth Affairs)/Yuva Aayog – 2204 | 200 | 135 | 10 | 55 |
| 4 | Organizing International to Block Level Sports Competition/ Participation & Adventure Sports – 2204 | 500 | 300 | 50 | 150 |
| 5 | Grants to Sports Promotion Activities and Consultancy – 2204 | 1150 | 750 | 50 | 350 |
| 6 | Training, Workshop, Study & Tour – 2204 | 50 | 20 | 10 | 20 |
| 7 | Skill Development – 2204 | 50 | 20 | 10 | 20 |
| 8 | Construction of Stadium, Sports/Youth Hostel/Swami Vivekanand Monument/NCC Building & Sports Infrastructure – 4202 | 2325 | 1700 | 0 | 625 |
| 9 | Preservation, Renovation & Beautification of Stadium, Sports Hostel and Cultural Building – 2204 | 500 | 250 | 0 | 250 |
| 10 | Creation of I.T Application – 2204 | 30 | 15 | 5 | 10 |
| 11 | Grants to Kamal Club & Sports Club for Hockey and Football (Panchayat, Block, District&State Level) – 2204 | 100 | 50 | 10 | 40 |
| | Total | 6005 | 3780 | 225 | 2000 |
| Art & Culture | | | | | |
| 1 | Organizing Cultural Programmes – 2205 | 1400 | 750 | 50 | 600 |
| 2 | Grants to Govt./Non Govt. Organizations – 2205 | 350 | 225 | 25 | 100 |
| 3 | Constitution of Jharkhand Kala Academy | 25 | 10 | 5 | 10 |
| 4 | Regional Language & Cultural Growth Centre – 2205 | 225 | 225 | 0 | 0 |
| 5 | Cultural Welfare Schemes and Cultural publication – 2205 | 170 | 80 | 10 | 80 |
| 6 | Construction, Security & Maintenance of Cultural Building, Museum & MCC – 4202 | 641.61 | 500 | 25 | 116.61 |
| 7 | Archaeological Activities and Schemes – 2205 | 50 | 30 | 5 | 15 |
| 8 | Development of the Museum Activity – 2205 | 100 | 55 | 5 | 40 |
| 9 | State/District Level Kala Sanskriti Parishad – 2205 | 50 | 30 | 5 | 15 |
| 10 | Cultural Consultancy Activity – 2205 | 50 | 30 | 5 | 15 |
| 11 | Const. & Establishment of Rabindra Bhawan Auditorium – 4202 | 250 | 100 | 0 | 150 |
| 12 | Jharkhand State Literature – 2205 (New Scheme) | 100 | 70 | 0 | 30 |
| | Total | 3411.61 | 2105.00 | 135.00 | 1171.61 |
| | Grand Total | 9416.61 | 5885.00 | 360.00 | 3171.61 |

Source: Tourism, Arts, Culture, Sports and Youth Affairs Department report, Jharkhand Government

Conclusion

Jharkhand is a mixture of various art and culture, varieties of tourist places and different kinds of sports. The state has extreme pleasures to give to its residents and to its visitors through the medium of tourism and art and culture. The Department of Tourism, Art, Culture, Sports and Youth Affairs, and the State Government has a strong motive to expand the tourism sector as it is continuously making efforts to provide better facilities and joyful memories to its

guests.

There are a few hurdles for the Government such as safety of the tourists, providing transportation and communication facility, etc. but its objectives are broad. Jharkhand has immense opportunities to grow and through a continuous effort of the Government, it has the possibility to become one of the favourite destinations of the Tourists and its art, culture and sports can get recognition all over the world.

STATISTICAL APPENDICES



Appendix 1.1: Development Gap between all India and Jharkhand

| Indicators | 2015-16 | | | 2005-06 | | | % Growth (2005-06 to 2015-16) |
|--|---------|-----------|--------------|---------|-----------|--------------|-------------------------------|
| | India | Jharkhand | Dev, deficit | India | Jharkhand | Dev, deficit | |
| Educational Development | | | | | | | |
| Female age 6 years and above who ever attended school (%) | 68.8 | 61.1 | 11.2 | 58.3 | 46.3 | 20.6 | 32.0 |
| Women who are literate (%) | 68.4 | 59.0 | 13.7 | 55.1 | 37.1 | 32.7 | 59.0 |
| Men who are literate (%) | 85.7 | 79.7 | 7.0 | 78.1 | 68.5 | 12.3 | 16.4 |
| Women with 10 or more years of schooling (%) | 35.7 | 28.7 | 19.6 | 22.3 | 15.1 | 32.3 | 90.1 |
| Gender Development | | | | | | | |
| Sex ratio of the total population | 991.0 | 1002.0 | -1.1 | 1000.0 | 1022.0 | -2.2 | -2.0 |
| Sex ratio at birth for children born in the last five years | 919.0 | 919.0 | 0.0 | 914.0 | 1091.0 | -19.4 | -15.8 |
| Ever-married women who have never experienced spousal violence (%) | 71.2 | 66 | 7.30 | 62.8 | 63.1 | -0.5 | 4.6 |
| Currently married women who usually participate in household decisions (%) | 84.0 | 86.6 | -3.1 | 76.5 | 77.7 | -1.6 | 11.5 |
| Women owning a house and/or land (alone or jointly with others) (%) | 38.4 | 49.7 | -29.4 | | | | |
| Women having a bank or savings account that they themselves use (%) | 53.0 | 45.1 | 14.9 | 15.1 | 14.4 | 4.6 | 213.2 |
| Amenities and Infrastructural Development | | | | | | | |
| Households with electricity (%) | 88.2 | 80.1 | 9.2 | 67.9 | 40.2 | 40.8 | 99.3 |
| Households with an improved drinking-water source (%) | 89.9 | 77.8 | 13.5 | 87.6 | 57.0 | 34.9 | 36.5 |
| Households using improved sanitation facility (%) | 48.4 | 24.4 | 49.6 | 29.1 | 15.1 | 48.1 | 61.6 |
| Households using clean fuel for cooking (%) | 43.8 | 18.9 | 56.8 | 25.5 | 10.5 | 58.8 | 80.0 |
| Households using iodized salt (%) | 93.1 | 97.6 | -4.8 | 76.1 | 92.7 | -21.8 | 5.3 |
| Development in indicators of Health and physical well being | | | | | | | |
| Health indicators | | | | | | | |
| Couples using any modern method of birth control (%) | 47.8 | 37.5 | 21.5 | 48.5 | 31.1 | 35.9 | 20.6 |
| Mothers who had full antenatal care (%) | 21.0 | 8.0 | 61.9 | 11.6 | 4.9 | 57.8 | 63.3 |
| Mothers who received postnatal care | 62.4 | 44.4 | 28.8 | 34.6 | 15.6 | 54.9 | 184.6 |
| Institutional births (%) | 78.9 | 61.9 | 21.5 | 38.7 | 18.3 | 52.7 | 238.3 |
| Children age 12-23 months fully immunized | 62.0 | 61.9 | 0.2 | 43.5 | 34.2 | 21.4 | 81.0 |
| Children under age 3 years breastfed within one hour of birth (%) | 41.6 | 33.2 | 20.2 | 23.4 | 10.9 | 53.4 | 204.6 |

| Indicators | 2015-16 | | | 2005-06 | | | % Growth (2005-06 to 2015-16) |
|---|---------|-----------|-----------------|---------|-----------|-----------------|-------------------------------------|
| | India | Jharkhand | Dev, deficit | India | Jharkhand | Dev, deficit | |
| Children under age 6 months exclusively breastfed (%) | 54.9 | 64.8 | -18.0 | 46.4 | 57.8 | -24.6 | 12.1 |
| Total children age 6-23 months receiving an adequate diet (%) | 9.6 | 7.2 | 25.0 | | | | |
| Total fertility rate (children per woman) | 2.2 | 2.6 | -18.2 | 2.7 | 3.3 | -22.2 | -21.2 |
| Coverage of Health promoting schemes and facilities | | | | | | | |
| Households with any member covered by a health scheme or health insurance (%) | 28.7 | 13.3 | 53.7 | 4.8 | 4.6 | 4.2 | 189.1 |
| Mothers who received financial assistance under JSY (%) | 36.4 | 41.6 | -14.3 | | | | |
| Indicators of ill-being | | | | | | | |
| Women age 20-24 years married before age 18 years (%) | 26.8 | 38.0 | -41.8 | 47.4 | 63.2 | -33.3 | -39.9 |
| Teenage pregnancy | 7.9 | 12.0 | -51.9 | 16.0 | 27.5 | -71.9 | -56.4 |
| Infant mortality rate (IMR) | 41.0 | 44.0 | -7.3 | 57.0 | 69.0 | -21.1 | -36.2 |
| Under-five mortality rate (U5MR) | 50.0 | 54.0 | -8.0 | 74.0 | 93.0 | -25.7 | -41.9 |
| Children under 5 years who are stunted (height-for-age) (%) | 38.4 | 45.3 | -18.0 | 48.0 | 49.8 | -3.7 | -9.0 |
| Children under 5 years who are wasted (weight-for-height) (%) | 21.0 | 29.0 | -38.1 | 19.8 | 32.3 | -63.1 | -10.2 |
| Children under 5 years who are underweight (weight-for-age)(%) | 35.7 | 47.8 | -33.9 | 42.5 | 56.5 | -32.9 | -15.4 |
| Women whose Body Mass Index (BMI) is below normal (%) | 22.9 | 31.5 | -37.6 | 35.5 | 42.9 | -20.8 | -26.6 |
| Men whose Body Mass Index (BMI) is below normal (%) | 20.2 | 23.8 | -17.8 | 34.2 | 38.6 | -12.9 | -38.3 |
| Children age 6-59 months who are anaemic (%) | 58.4 | 69.9 | -19.7 | 69.4 | 70.3 | -1.3 | -0.6 |
| All women age 15-49 years who are anaemic (%) | 53.0 | 65.2 | -23.0 | 55.3 | 69.5 | -25.7 | -6.2 |
| Men age 15-49 years who are anaemic (%) | 22.7 | 29.9 | -31.7 | 24.2 | 36.5 | -50.8 | -18.1 |
| Health Hazardous Habits | | | | | | | |
| Women who use any kind of tobacco (%) | 6.8 | 5.8 | 14.7 | 10.8 | 11.6 | -7.4 | -50.0 |
| Men who use any kind of tobacco (%) | 44.5 | 48.6 | -9.2 | 57.0 | 61.7 | -8.2 | -21.2 |
| Women who consume alcohol (%) | 1.2 | 4.1 | -241.7 | 2.2 | 9.9 | -350.0 | -58.6 |
| Men who consume alcohol (%) | 29.2 | 39.3 | -34.6 | 31.9 | 38.9 | -21.9 | 1.0 |

Source: NFHS - 3 & NFHS - 4

Appendix 1.2: Gross State Value Added by economic activity at current prices

(Rs. In Lakh)

| S. No. | Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | 2017-18(Pr) |
|------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1. | Agriculture, forestry and fishing | 2233546 | 2550211 | 2844224 | 4016315 | 3266716 | 3504275 | 3850943 |
| 1.1 | Crops | 1342099 | 1611776 | 1812103 | 2078016 | 1804874 | 1945736 | 2095771 |
| 1.2 | Livestock | 477585 | 459416 | 493408 | 560096 | 616745 | 657526 | 700947 |
| 1.3 | Forestry and logging | 357560 | 39912 | 438925 | 1269256 | 716911 | 743542 | 860789 |
| 1.4 | Fishing and aquaculture | 56302 | 79107 | 99788 | 108947 | 128186 | 157471 | 193435 |
| 2. | Mining and quarrying | 1620374 | 1879069 | 1858615 | 2072180 | 2014188 | 2127041 | 2245991 |
| | Primary | 3853920 | 4429280 | 4702839 | 6088495 | 5280904 | 5631316 | 6096934 |
| 3. | Manufacturing | 3016583 | 3797607 | 3660373 | 4065135 | 4289339 | 4682938 | 5113509 |
| 4. | Electricity, gas, water supply & other utility services | 241235 | 302773 | 335541 | 354547 | 344258 | 379629 | 415665 |
| 5. | Construction | 1439526 | 1455717 | 1699296 | 1750743 | 1787623 | 1892632 | 1999105 |
| | Secondary | 4697344 | 5556097 | 5695210 | 6170425 | 6421220 | 6955199 | 7528278 |
| 6. | Trade, repair, hotels and restaurants | 1152143 | 1383070 | 1595751 | 1802433 | 2273892 | 2694677 | 3194115 |
| 6.1 | Trade & repair services | 1065983 | 1272474 | 1479141 | 1658001 | 2118174 | 2513438 | 2983814 |
| 6.2 | Hotels & restaurants | 86160 | 110596 | 116610 | 144432 | 155718 | 181239 | 210301 |
| 7. | Transport, storage, communication & services related to broadcasting | 975954 | 1148809 | 1325607 | 1498718 | 1649696 | 1886415 | 2160152 |
| 7.1 | Railways | 297906 | 362089 | 404019 | 487006 | 522133 | 600767 | 691244 |
| 7.2 | Road transport | 458247 | 530804 | 608092 | 650028 | 706251 | 786499 | 876230 |
| 7.3 | Water transport | | | | | | | |
| 7.4 | Air transport | 1373 | 2448 | 3362 | 3917 | 6581 | 9769 | 14464 |
| 7.5 | Services incidental to transport | 22315 | 26547 | 27554 | 26588 | 21454 | 21315 | 21120 |
| 7.6 | Storage | 384 | 388 | 378 | 301 | 302 | 284 | 267 |
| 7.7 | Communication & services related to broadcasting | 195729 | 226533 | 282202 | 330878 | 392975 | 467781 | 556827 |
| 8. | Financial services | 414386 | 462493 | 509609 | 561609 | 639251 | 712423 | 793971 |
| 9. | Real estate, ownership of dwelling & professional services | 1101151 | 1290003 | 1450196 | 1602263 | 1766623 | 1987837 | 2237111 |
| 10. | Public administration | 981782 | 927373 | 928783 | 1161608 | 1402628 | 1533467 | 1676511 |
| 11. | Other services | 736279 | 885544 | 1045235 | 1194020 | 1433638 | 1690719 | 1996536 |
| | Tertiary | 5361695 | 6097292 | 6855181 | 7820651 | 9165728 | 10505538 | 12058396 |
| 12. | TOTAL GVA at basic prices | 13912959 | 16082669 | 17253230 | 20079571 | 20867852 | 23092053 | 25683608 |
| 13. | Taxes on Products | 1511500 | 1822100 | 1992669 | 2147532 | 2627634 | 2627634 | 2627634 |
| 14. | Subsidies on products | 332700 | 432400 | 389228 | 374586 | 366076 | 366076 | 366076 |
| 15. | Gross State Domestic Product | 15091759 | 17472369 | 18856671 | 21852517 | 23129410 | 25353611 | 27945166 |
| 16. | Population ('00) | 333020 | 338480 | 344020 | 349660 | 355380 | 361210 | 367120 |
| 17. | Per Capita GSDP (Rs.) | 45318 | 51620 | 54813 | 62496 | 65084 | 70191 | 76120 |

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.3: Gross State Value Added by economic activity at constant (2011-12) prices

(Rs. In Lakh)

| S. No. | Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | 2017-18(Pr) |
|------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1. | Agriculture, forestry and fishing | 223546 | 2364954 | 2321295 | 3033187 | 2249759 | 2505755 | 2574990 |
| 1.1 | Crops | 1342099 | 1498008 | 1430467 | 1507393 | 1218739 | 1391312 | 1401369 |
| 1.2 | Livestock | 477585 | 445735 | 461145 | 475099 | 488793 | 470168 | 468698 |
| 1.3 | Forestry and logging | 357560 | 361880 | 365303 | 985328 | 471013 | 531674 | 575579 |
| 1.4 | Fishing and aquaculture | 56302 | 59331 | 64380 | 65367 | 71214 | 112601 | 129344 |
| 2. | Mining and quarrying | 1620374 | 1730483 | 1720631 | 2017893 | 2022013 | 2328274 | 2503329 |
| | Primary | 3853920 | 4095437 | 4041926 | 5051080 | 4271772 | 4834029 | 5078319 |
| 3. | Manufacturing | 3016583 | 3614824 | 3356361 | 3672018 | 3924474 | 4190280 | 4474954 |
| 4. | Electricity, gas, water supply & other utility services | 241235 | 286345 | 291006 | 271008 | 247564 | 266732 | 272146 |
| 5. | Construction | 1439526 | 1344315 | 1484303 | 1490431 | 1568835 | 1626052 | 1666163 |
| | Secondary | 4697344 | 5245484 | 5131670 | 5433457 | 5740873 | 6083064 | 6413263 |
| 6. | Trade, repair, hotels and restaurants | 1152143 | 1287305 | 1400566 | 1549332 | 2004480 | 2292567 | 2631049 |
| 6.1 | Trade & repair services | 1065983 | 1184361 | 1298228 | 1425181 | 1867211 | 2138373 | 2457820 |
| 6.2 | Hotels & restaurants | 86160 | 102944 | 102338 | 124151 | 137269 | 154194 | 173229 |
| 7. | Transport, storage, communication & services related to broadcasting | 975954 | 1076288 | 1180454 | 1291439 | 1426129 | 1813053 | 2080547 |
| 7.1 | Railways | 297906 | 345399 | 374927 | 421794 | 432162 | 511118 | 569390 |
| 7.2 | Road transport | 458247 | 490939 | 535722 | 558749 | 622573 | 669135 | 721766 |
| 7.3 | Water transport | | | | | | | |
| 7.4 | Air transport | 1373 | 1285 | 2256 | 3368 | 5801 | 8311 | 11914 |
| 7.5 | Services incidental to transport | 22315 | 25425 | 18495 | 22854 | 18912 | 18134 | 17397 |
| 7.6 | Storage | 384 | 369 | 332 | 259 | 266 | 242 | 221 |
| 7.7 | Communication & services related to broadcasting | 195729 | 212871 | 248722 | 284415 | 346415 | 606113 | 759859 |
| 8. | Financial services | 414386 | 453306 | 466489 | 493239 | 569318 | 599135 | 644984 |
| 9. | Real estate, ownership of dwelling & professional services | 1101151 | 1189599 | 1249340 | 1407205 | 1573357 | 1282009 | 1321600 |
| 10. | Public administration | 981782 | 859075 | 801042 | 936901 | 1072683 | 1127039 | 1158574 |
| 11. | Other services | 736279 | 824103 | 900892 | 963043 | 1096399 | 1242613 | 1379732 |
| | Tertiary | 5361695 | 5689676 | 5998783 | 6641159 | 7742366 | 8356416 | 9216484 |
| 12. | TOTAL GSVA at basic prices | 13912959 | 15030597 | 15172379 | 17125696 | 17755011 | 19273509 | 20708066 |
| 13. | Taxes on Products | 1511500 | 1697187 | 1751335 | 1850523 | 2322052 | 2322052 | 2322052 |
| 14. | Subsidies on products | 332700 | 402757 | 342088 | 322780 | 323503 | 323503 | 323503 |
| 15. | Gross State Domestic Product | 15091759 | 16325027 | 16581626 | 18653439 | 19753560 | 21272058 | 22706615 |
| 16. | Population ('00) | 333020 | 338480 | 344020 | 349660 | 355380 | 361210 | 367120 |
| 17. | Per Capita GSDP (Rs.) | 45318 | 48230 | 48200 | 53347 | 55584 | 58891 | 61851 |

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

STATISTICAL APPENDICES



Appendix 1.1: Development Gap between all India and Jharkhand

| Indicators | 2015-16 | | | 2005-06 | | | % Growth (2005-06 to 2015-16) |
|--|---------|-----------|--------------|---------|-----------|--------------|-------------------------------|
| | India | Jharkhand | Dev, deficit | India | Jharkhand | Dev, deficit | |
| Educational Development | | | | | | | |
| Female age 6 years and above who ever attended school (%) | 68.8 | 61.1 | 11.2 | 58.3 | 46.3 | 20.6 | 32.0 |
| Women who are literate (%) | 68.4 | 59.0 | 13.7 | 55.1 | 37.1 | 32.7 | 59.0 |
| Men who are literate (%) | 85.7 | 79.7 | 7.0 | 78.1 | 68.5 | 12.3 | 16.4 |
| Women with 10 or more years of schooling (%) | 35.7 | 28.7 | 19.6 | 22.3 | 15.1 | 32.3 | 90.1 |
| Gender Development | | | | | | | |
| Sex ratio of the total population | 991.0 | 1002.0 | -1.1 | 1000.0 | 1022.0 | -2.2 | -2.0 |
| Sex ratio at birth for children born in the last five years | 919.0 | 919.0 | 0.0 | 914.0 | 1091.0 | -19.4 | -15.8 |
| Ever-married women who have never experienced spousal violence (%) | 71.2 | 66 | 7.30 | 62.8 | 63.1 | -0.5 | 4.6 |
| Currently married women who usually participate in household decisions (%) | 84.0 | 86.6 | -3.1 | 76.5 | 77.7 | -1.6 | 11.5 |
| Women owning a house and/or land (alone or jointly with others) (%) | 38.4 | 49.7 | -29.4 | | | | |
| Women having a bank or savings account that they themselves use (%) | 53.0 | 45.1 | 14.9 | 15.1 | 14.4 | 4.6 | 213.2 |
| Amenities and Infrastructural Development | | | | | | | |
| Households with electricity (%) | 88.2 | 80.1 | 9.2 | 67.9 | 40.2 | 40.8 | 99.3 |
| Households with an improved drinking-water source (%) | 89.9 | 77.8 | 13.5 | 87.6 | 57.0 | 34.9 | 36.5 |
| Households using improved sanitation facility (%) | 48.4 | 24.4 | 49.6 | 29.1 | 15.1 | 48.1 | 61.6 |
| Households using clean fuel for cooking (%) | 43.8 | 18.9 | 56.8 | 25.5 | 10.5 | 58.8 | 80.0 |
| Households using iodized salt (%) | 93.1 | 97.6 | -4.8 | 76.1 | 92.7 | -21.8 | 5.3 |
| Development in indicators of Health and physical well being | | | | | | | |
| Health indicators | | | | | | | |
| Couples using any modern method of birth control (%) | 47.8 | 37.5 | 21.5 | 48.5 | 31.1 | 35.9 | 20.6 |
| Mothers who had full antenatal care (%) | 21.0 | 8.0 | 61.9 | 11.6 | 4.9 | 57.8 | 63.3 |
| Mothers who received postnatal care | 62.4 | 44.4 | 28.8 | 34.6 | 15.6 | 54.9 | 184.6 |
| Institutional births (%) | 78.9 | 61.9 | 21.5 | 38.7 | 18.3 | 52.7 | 238.3 |
| Children age 12-23 months fully immunized | 62.0 | 61.9 | 0.2 | 43.5 | 34.2 | 21.4 | 81.0 |
| Children under age 3 years breastfed within one hour of birth (%) | 41.6 | 33.2 | 20.2 | 23.4 | 10.9 | 53.4 | 204.6 |

| Indicators | 2015-16 | | | 2005-06 | | | % Growth (2005-06 to 2015-16) |
|---|---------|-----------|-----------------|---------|-----------|-----------------|-------------------------------------|
| | India | Jharkhand | Dev, deficit | India | Jharkhand | Dev, deficit | |
| Children under age 6 months exclusively breastfed (%) | 54.9 | 64.8 | -18.0 | 46.4 | 57.8 | -24.6 | 12.1 |
| Total children age 6-23 months receiving an adequate diet (%) | 9.6 | 7.2 | 25.0 | | | | |
| Total fertility rate (children per woman) | 2.2 | 2.6 | -18.2 | 2.7 | 3.3 | -22.2 | -21.2 |
| Coverage of Health promoting schemes and facilities | | | | | | | |
| Households with any member covered by a health scheme or health insurance (%) | 28.7 | 13.3 | 53.7 | 4.8 | 4.6 | 4.2 | 189.1 |
| Mothers who received financial assistance under JSY (%) | 36.4 | 41.6 | -14.3 | | | | |
| Indicators of ill-being | | | | | | | |
| Women age 20-24 years married before age 18 years (%) | 26.8 | 38.0 | -41.8 | 47.4 | 63.2 | -33.3 | -39.9 |
| Teenage pregnancy | 7.9 | 12.0 | -51.9 | 16.0 | 27.5 | -71.9 | -56.4 |
| Infant mortality rate (IMR) | 41.0 | 44.0 | -7.3 | 57.0 | 69.0 | -21.1 | -36.2 |
| Under-five mortality rate (U5MR) | 50.0 | 54.0 | -8.0 | 74.0 | 93.0 | -25.7 | -41.9 |
| Children under 5 years who are stunted (height-for-age) (%) | 38.4 | 45.3 | -18.0 | 48.0 | 49.8 | -3.7 | -9.0 |
| Children under 5 years who are wasted (weight-for-height) (%) | 21.0 | 29.0 | -38.1 | 19.8 | 32.3 | -63.1 | -10.2 |
| Children under 5 years who are underweight (weight-for-age)(%) | 35.7 | 47.8 | -33.9 | 42.5 | 56.5 | -32.9 | -15.4 |
| Women whose Body Mass Index (BMI) is below normal (%) | 22.9 | 31.5 | -37.6 | 35.5 | 42.9 | -20.8 | -26.6 |
| Men whose Body Mass Index (BMI) is below normal (%) | 20.2 | 23.8 | -17.8 | 34.2 | 38.6 | -12.9 | -38.3 |
| Children age 6-59 months who are anaemic (%) | 58.4 | 69.9 | -19.7 | 69.4 | 70.3 | -1.3 | -0.6 |
| All women age 15-49 years who are anaemic (%) | 53.0 | 65.2 | -23.0 | 55.3 | 69.5 | -25.7 | -6.2 |
| Men age 15-49 years who are anaemic (%) | 22.7 | 29.9 | -31.7 | 24.2 | 36.5 | -50.8 | -18.1 |
| Health Hazardous Habits | | | | | | | |
| Women who use any kind of tobacco (%) | 6.8 | 5.8 | 14.7 | 10.8 | 11.6 | -7.4 | -50.0 |
| Men who use any kind of tobacco (%) | 44.5 | 48.6 | -9.2 | 57.0 | 61.7 | -8.2 | -21.2 |
| Women who consume alcohol (%) | 1.2 | 4.1 | -241.7 | 2.2 | 9.9 | -350.0 | -58.6 |
| Men who consume alcohol (%) | 29.2 | 39.3 | -34.6 | 31.9 | 38.9 | -21.9 | 1.0 |

Source: NFHS - 3 & NFHS - 4

Appendix 1.2: Gross State Value Added by economic activity at current prices

(Rs. In Lakh)

| S. No. | Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | 2017-18(Pr) |
|------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1. | Agriculture, forestry and fishing | 2233546 | 2550211 | 2844224 | 4016315 | 3266716 | 3504275 | 3850943 |
| 1.1 | Crops | 1342099 | 1611776 | 1812103 | 2078016 | 1804874 | 1945736 | 2095771 |
| 1.2 | Livestock | 477585 | 459416 | 493408 | 560096 | 616745 | 657526 | 700947 |
| 1.3 | Forestry and logging | 357560 | 39912 | 438925 | 1269256 | 716911 | 743542 | 860789 |
| 1.4 | Fishing and aquaculture | 56302 | 79107 | 99788 | 108947 | 128186 | 157471 | 193435 |
| 2. | Mining and quarrying | 1620374 | 1879069 | 1858615 | 2072180 | 2014188 | 2127041 | 2245991 |
| | Primary | 3853920 | 4429280 | 4702839 | 6088495 | 5280904 | 5631316 | 6096934 |
| 3. | Manufacturing | 3016583 | 3797607 | 3660373 | 4065135 | 4289339 | 4682938 | 5113509 |
| 4. | Electricity, gas, water supply & other utility services | 241235 | 302773 | 335541 | 354547 | 344258 | 379629 | 415665 |
| 5. | Construction | 1439526 | 1455717 | 1699296 | 1750743 | 1787623 | 1892632 | 1999105 |
| | Secondary | 4697344 | 5556097 | 5695210 | 6170425 | 6421220 | 6955199 | 7528278 |
| 6. | Trade, repair, hotels and restaurants | 1152143 | 1383070 | 1595751 | 1802433 | 2273892 | 2694677 | 3194115 |
| 6.1 | Trade & repair services | 1065983 | 1272474 | 1479141 | 1658001 | 2118174 | 2513438 | 2983814 |
| 6.2 | Hotels & restaurants | 86160 | 110596 | 116610 | 144432 | 155718 | 181239 | 210301 |
| 7. | Transport, storage, communication & services related to broadcasting | 975954 | 1148809 | 1325607 | 1498718 | 1649696 | 1886415 | 2160152 |
| 7.1 | Railways | 297906 | 362089 | 404019 | 487006 | 522133 | 600767 | 691244 |
| 7.2 | Road transport | 458247 | 530804 | 608092 | 650028 | 706251 | 786499 | 876230 |
| 7.3 | Water transport | | | | | | | |
| 7.4 | Air transport | 1373 | 2448 | 3362 | 3917 | 6581 | 9769 | 14464 |
| 7.5 | Services incidental to transport | 22315 | 26547 | 27554 | 26588 | 21454 | 21315 | 21120 |
| 7.6 | Storage | 384 | 388 | 378 | 301 | 302 | 284 | 267 |
| 7.7 | Communication & services related to broadcasting | 195729 | 226533 | 282202 | 330878 | 392975 | 467781 | 556827 |
| 8. | Financial services | 414386 | 462493 | 509609 | 561609 | 639251 | 712423 | 793971 |
| 9. | Real estate, ownership of dwelling & professional services | 1101151 | 1290003 | 1450196 | 1602263 | 1766623 | 1987837 | 2237111 |
| 10. | Public administration | 981782 | 927373 | 928783 | 1161608 | 1402628 | 1533467 | 1676511 |
| 11. | Other services | 736279 | 885544 | 1045235 | 1194020 | 1433638 | 1690719 | 1996536 |
| | Tertiary | 5361695 | 6097292 | 6855181 | 7820651 | 9165728 | 10505538 | 12058396 |
| 12. | TOTAL GVA at basic prices | 13912959 | 16082669 | 17253230 | 20079571 | 20867852 | 23092053 | 25683608 |
| 13. | Taxes on Products | 1511500 | 1822100 | 1992669 | 2147532 | 2627634 | 2627634 | 2627634 |
| 14. | Subsidies on products | 332700 | 432400 | 389228 | 374586 | 366076 | 366076 | 366076 |
| 15. | Gross State Domestic Product | 15091759 | 17472369 | 18856671 | 21852517 | 23129410 | 25353611 | 27945166 |
| 16. | Population ('00) | 333020 | 338480 | 344020 | 349660 | 355380 | 361210 | 367120 |
| 17. | Per Capita GSDP (Rs.) | 45318 | 51620 | 54813 | 62496 | 65084 | 70191 | 76120 |

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.3: Gross State Value Added by economic activity at constant (2011-12) prices

(Rs. In Lakh)

| S. No. | Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | 2017-18(Pr) |
|------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1. | Agriculture, forestry and fishing | 223546 | 2364954 | 2321295 | 3033187 | 2249759 | 2505755 | 2574990 |
| 1.1 | Crops | 1342099 | 1498008 | 1430467 | 1507393 | 1218739 | 1391312 | 1401369 |
| 1.2 | Livestock | 477585 | 445735 | 461145 | 475099 | 488793 | 470168 | 468698 |
| 1.3 | Forestry and logging | 357560 | 361880 | 365303 | 985328 | 471013 | 531674 | 575579 |
| 1.4 | Fishing and aquaculture | 56302 | 59331 | 64380 | 65367 | 71214 | 112601 | 129344 |
| 2. | Mining and quarrying | 1620374 | 1730483 | 1720631 | 2017893 | 2022013 | 2328274 | 2503329 |
| | Primary | 3853920 | 4095437 | 4041926 | 5051080 | 4271772 | 4834029 | 5078319 |
| 3. | Manufacturing | 3016583 | 3614824 | 3356361 | 3672018 | 3924474 | 4190280 | 4474954 |
| 4. | Electricity, gas, water supply & other utility services | 241235 | 286345 | 291006 | 271008 | 247564 | 266732 | 272146 |
| 5. | Construction | 1439526 | 1344315 | 1484303 | 1490431 | 1568835 | 1626052 | 1666163 |
| | Secondary | 4697344 | 5245484 | 5131670 | 5433457 | 5740873 | 6083064 | 6413263 |
| 6. | Trade, repair, hotels and restaurants | 1152143 | 1287305 | 1400566 | 1549332 | 2004480 | 2292567 | 2631049 |
| 6.1 | Trade & repair services | 1065983 | 1184361 | 1298228 | 1425181 | 1867211 | 2138373 | 2457820 |
| 6.2 | Hotels & restaurants | 86160 | 102944 | 102338 | 124151 | 137269 | 154194 | 173229 |
| 7. | Transport, storage, communication & services related to broadcasting | 975954 | 1076288 | 1180454 | 1291439 | 1426129 | 1813053 | 2080547 |
| 7.1 | Railways | 297906 | 345399 | 374927 | 421794 | 432162 | 511118 | 569390 |
| 7.2 | Road transport | 458247 | 490939 | 535722 | 558749 | 622573 | 669135 | 721766 |
| 7.3 | Water transport | | | | | | | |
| 7.4 | Air transport | 1373 | 1285 | 2256 | 3368 | 5801 | 8311 | 11914 |
| 7.5 | Services incidental to transport | 22315 | 25425 | 18495 | 22854 | 18912 | 18134 | 17397 |
| 7.6 | Storage | 384 | 369 | 332 | 259 | 266 | 242 | 221 |
| 7.7 | Communication & services related to broadcasting | 195729 | 212871 | 248722 | 284415 | 346415 | 606113 | 759859 |
| 8. | Financial services | 414386 | 453306 | 466489 | 493239 | 569318 | 599135 | 644984 |
| 9. | Real estate, ownership of dwelling & professional services | 1101151 | 1189599 | 1249340 | 1407205 | 1573357 | 1282009 | 1321600 |
| 10. | Public administration | 981782 | 859075 | 801042 | 936901 | 1072683 | 1127039 | 1158574 |
| 11. | Other services | 736279 | 824103 | 900892 | 963043 | 1096399 | 1242613 | 1379732 |
| | Tertiary | 5361695 | 5689676 | 5998783 | 6641159 | 7742366 | 8356416 | 9216484 |
| 12. | TOTAL GSVA at basic prices | 13912959 | 15030597 | 15172379 | 17125696 | 17755011 | 19273509 | 20708066 |
| 13. | Taxes on Products | 1511500 | 1697187 | 1751335 | 1850523 | 2322052 | 2322052 | 2322052 |
| 14. | Subsidies on products | 332700 | 402757 | 342088 | 322780 | 323503 | 323503 | 323503 |
| 15. | Gross State Domestic Product | 15091759 | 16325027 | 16581626 | 18653439 | 19753560 | 21272058 | 22706615 |
| 16. | Population ('00) | 333020 | 338480 | 344020 | 349660 | 355380 | 361210 | 367120 |
| 17. | Per Capita GSDP (Rs.) | 45318 | 48230 | 48200 | 53347 | 55584 | 58891 | 61851 |

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.4: Net State Value Added by economic activity at current prices

(Rs. In Lakh)

| S. No. | Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | 2017-18(Pr) |
|--------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1. | Agriculture, forestry and fishing | 2100329 | 2395965 | 2664249 | 3808844 | 3044805 | 3282364 | 3606171 |
| 1.1 | Crops | 1227605 | 1479511 | 1656232 | 1903449 | 1611566 | 1752428 | 1881726 |
| 1.2 | Livestock | 469404 | 450789 | 483948 | 549966 | 606678 | 647459 | 690471 |
| 1.3 | Forestry and logging | 353636 | 395436 | 433972 | 1256739 | 710008 | 736639 | 853089 |
| 1.4 | Fishing and aquaculture | 49684 | 70229 | 90097 | 98690 | 116553 | 145838 | 180885 |
| 2. | Mining and quarrying | 1424784 | 1651034 | 1591597 | 1759099 | 1679910 | 1792763 | 1877058 |
| 3. | Primary | 3525113 | 4046999 | 4255846 | 5567943 | 4724715 | 5075127 | 5483229 |
| 3. | Manufacturing | 2740497 | 3562247 | 3390423 | 3832136 | 4046074 | 4439673 | 4889397 |
| 4. | Electricity, gas, water supply & other utility services | 160289 | 198000 | 222036 | 229621 | 233459 | 268830 | 298121 |
| 5. | Construction | 1371583 | 1378972 | 1596103 | 1647815 | 1684102 | 1789111 | 1886776 |
| 6. | Secondary | 4272369 | 5139219 | 5208562 | 5709572 | 5963635 | 6497614 | 7074294 |
| 6. | Trade, repair, hotels and restaurants | 1098375 | 1314047 | 1514561 | 1703297 | 2159278 | 2580063 | 3061929 |
| 6.1 | Trade & repair services | 1016218 | 1208962 | 1418108 | 1585491 | 2031585 | 2426849 | 2888377 |
| 6.2 | Hotels & restaurants | 82157 | 105085 | 96453 | 117806 | 127693 | 153214 | 173552 |
| 7. | Transport, storage, communication & services related to broadcasting | 813647 | 966004 | 1080797 | 1222987 | 1351581 | 1588300 | 1822753 |
| 7.1 | Railways | 237638 | 293142 | 321544 | 384320 | 402705 | 481339 | 554317 |
| 7.2 | Road transport | 392312 | 456846 | 520538 | 559493 | 611184 | 691432 | 774414 |
| 7.3 | Water transport | | | | | | | |
| 7.4 | Air transport | 1373 | 2448 | 1643 | 2616 | 5490 | 8678 | 12548 |
| 7.5 | Services incidental to transport | 22315 | 26547 | 23837 | 23438 | 19085 | 18946 | 18336 |
| 7.6 | Storage | 329 | 336 | 320 | 253 | 253 | 235 | 220 |
| 7.7 | Communication & services related to broadcasting | 159680 | 186685 | 212915 | 252867 | 312864 | 387670 | 462918 |
| 8. | Financial services | 407843 | 454300 | 501096 | 551249 | 627177 | 700349 | 780331 |
| 9. | Real estate, ownership of dwelling & professional services | 992301 | 1163065 | 1323500 | 1457842 | 1612214 | 1833428 | 2072946 |
| 10. | Public administration | 757532 | 721118 | 726761 | 918200 | 1124363 | 1255202 | 1388597 |
| 11. | Other services | 692367 | 835956 | 988477 | 1131712 | 1365958 | 1623039 | 1924542 |
| | Tertiary | 4762065 | 5454490 | 6135192 | 6985287 | 8240571 | 9580381 | 11051098 |
| 12. | TOTAL NSVA at basic prices | 12559547 | 14640708 | 15599600 | 18262802 | 18928921 | 21153122 | 23608620 |
| 13. | Taxes on Products | 1511500 | 1822100 | 1992669 | 2147532 | 2627634 | 2627634 | 2627634 |
| 14. | Subsidies on products | 332700 | 432400 | 389228 | 374586 | 366076 | 366076 | 366076 |
| 15. | Net State Domestic Product | 13738347 | 16030408 | 17203041 | 20035748 | 21190479 | 23414680 | 25870178 |
| 16. | Population ('00) | 333020 | 338480 | 344020 | 349660 | 355380 | 361210 | 367120 |
| 17. | Per Capita NSDP (Rs.) | 41254 | 47360 | 50006 | 57301 | 59628 | 64823 | 70468 |

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.5: Net State Value Added by economic activity at constant (2011-12) prices

(Rs. In Lakh)

| S. No. | Item | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(P) | 2016-17(A) | 2017-18(Pr) |
|--------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1. | Agriculture, forestry and fishing | 2100329 | 2221943 | 2166800 | 2862595 | 2074132 | 2330128 | 2390480 |
| 1.1 | Crops | 1227605 | 1375517 | 1297247 | 1365336 | 1068306 | 1240879 | 1243551 |
| 1.2 | Livestock | 469404 | 437744 | 452760 | 466378 | 479836 | 461211 | 459590 |
| 1.3 | Forestry and logging | 333636 | 357726 | 360916 | 974577 | 464943 | 525604 | 568957 |
| 1.4 | Fishing and aquaculture | 49684 | 50956 | 55877 | 56304 | 61047 | 102434 | 118383 |
| 2. | Mining and quarrying | 1424784 | 1513376 | 1476089 | 1748278 | 1740274 | 2046535 | 2200256 |
| | Primary | 3525113 | 3735319 | 3642889 | 4610873 | 3814406 | 4376663 | 4590736 |
| 3. | Manufacturing | 2740497 | 3388295 | 3103621 | 3462673 | 3705990 | 3971796 | 4277780 |
| 4. | Electricity, gas, water supply & other utility services | 160289 | 185362 | 184541 | 159316 | 148183 | 167351 | 168800 |
| 5. | Construction | 1371583 | 1271097 | 1387201 | 1394971 | 1472297 | 1529514 | 1563219 |
| | Secondary | 4272369 | 4844754 | 4675363 | 5016960 | 5326470 | 5668661 | 6009799 |
| 6. | Trade, repair, hotels and restaurants | 1098375 | 1222203 | 1326563 | 1462281 | 1901877 | 2189964 | 2515207 |
| 6.1 | Trade & repair services | 1016218 | 1124458 | 1242713 | 1361529 | 1789657 | 2060819 | 2373835 |
| 6.2 | Hotels & restaurants | 82157 | 97745 | 83850 | 100752 | 112220 | 129145 | 141372 |
| 7. | Transport, storage, communication & services related to broadcasting | 813647 | 901861 | 951326 | 1045884 | 1162329 | 1549253 | 1792597 |
| 7.1 | Railways | 237638 | 280740 | 299653 | 332481 | 329028 | 407984 | 454557 |
| 7.2 | Road transport | 392312 | 420137 | 454700 | 474433 | 533693 | 580255 | 627504 |
| 7.3 | Water transport | | | | | | | |
| 7.4 | Air transport | 1373 | 1285 | 659 | 2153 | 4785 | 7295 | 10188 |
| 7.5 | Services incidental to transport | 22315 | 25425 | 14995 | 20070 | 16809 | 16031 | 15005 |
| 7.6 | Storage | 329 | 320 | 279 | 218 | 222 | 198 | 179 |
| 7.7 | Communication & services related to broadcasting | 159680 | 173954 | 181040 | 216529 | 277792 | 537490 | 685164 |
| 8. | Financial services | 407843 | 445363 | 458389 | 484056 | 558643 | 588460 | 633230 |
| 9. | Real estate, ownership of dwelling & professional services | 992301 | 1070974 | 1136212 | 1283995 | 1441533 | 1150185 | 1184657 |
| 10. | Public administration | 757532 | 660874 | 612617 | 716753 | 819451 | 873807 | 899122 |
| 11. | Other services | 692367 | 776851 | 848327 | 908255 | 1036041 | 1182255 | 1315789 |
| | Tertiary | 4762065 | 5078126 | 5333434 | 5901224 | 6919874 | 7539924 | 8340601 |
| 12. | TOTAL NSVA at basic prices | 12559547 | 13658199 | 13651686 | 15529057 | 16060750 | 17579248 | 18941136 |
| 13. | Taxes on Products | 1511500 | 1697187 | 1751335 | 1850523 | 2322052 | 2322052 | 2322052 |
| 14. | Subsidies on products | 332700 | 402757 | 342088 | 322780 | 323503 | 323503 | 323503 |
| 15. | Net State Domestic Product | 13738347 | 14952629 | 15060933 | 17056800 | 18059299 | 19577797 | 20939685 |
| 16. | Population ('00) | 333020 | 338480 | 344020 | 349660 | 355380 | 361210 | 367120 |
| 17. | Per Capita NSDP (Rs.) | 41254 | 44176 | 43779 | 48781 | 50817 | 54201 | 57038 |

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.6: Gross State Domestic Product (GSDP) at Current Prices

(Figures in Rs. Billion)

| States | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Andaman & Nicobar | 39.79 | 44.21 | 50.23 | 54.78 | 59.32 | - |
| Andhra Pradesh | 3,794.02 | 4,114.04 | 4,642.72 | 5,264.68 | 6,099.34 | 6,993.07 |
| Arunachal Pradesh | 110.63 | 125.47 | 145.81 | 179.31 | 202.94 | - |
| Assam | 1,431.75 | 1,568.64 | 1,777.45 | 1,957.23 | 2,262.76 | - |
| Bihar | 2,471.44 | 2,823.68 | 3,171.01 | 3,429.51 | 3,815.01 | 4,380.30 |
| Chandigarh | 187.68 | 219.09 | 251.55 | 265.41 | 290.49 | - |
| Chhattisgarh | 1,580.74 | 1,775.11 | 2,066.90 | 2,349.82 | 2,607.76 | 2,901.40 |
| Delhi | 3,437.67 | 3,912.38 | 4,437.83 | 4,924.24 | 5,519.63 | 6,223.85 |
| Goa | 423.67 | 381.2 | 359.21 | 478.14 | 542.75 | - |
| Gujarat | 6,156.06 | 7,244.95 | 8,076.23 | 9,217.73 | 10,337.91 | - |
| Haryana | 2,975.39 | 3,470.32 | 4,006.62 | 4,374.62 | 4,851.84 | 5,473.96 |
| Himachal Pradesh | 727.2 | 828.2 | 947.64 | 1,037.42 | 1,128.52 | 1,252.27 |
| Jammu & Kashmir | 782.56 | 871.44 | 956.19 | 983.33 | 1,190.93 | - |
| Jharkhand | 1,509.18 | 1,747.24 | 1,885.67 | 2,185.25 | 2,312.94 | 2,535.36 |
| Karnataka | 6,060.10 | 6,954.13 | 8,166.66 | 9,126.47 | 10,169.10 | 11,326.90 |
| Kerala | 3,640.48 | 4,123.13 | 4,650.41 | 5,125.64 | 5,566.16 | - |
| Madhya Pradesh | 3,155.61 | 3,809.24 | 4,377.37 | 4,819.82 | 5,439.75 | 6,404.84 |
| Maharashtra | 12,759.48 | 14,546.12 | 16,460.43 | 17,737.44 | 20,012.23 | - |
| Manipur | 129.15 | 137.48 | 161.98 | 181.29 | 192.33 | - |
| Meghalaya | 199.18 | 218.72 | 229.38 | 232.35 | 257.67 | - |
| Mizoram | 72.59 | 83.62 | 102.93 | 135.09 | 153.39 | - |
| Nagaland | 121.77 | 141.21 | 166.12 | 184.01 | 198.16 | - |
| Orissa | 2,278.72 | 2,582.75 | 2,917.09 | 3,219.71 | 3,418.87 | 3,789.91 |
| Pondicherry | 168.18 | 188.75 | 218.7 | 225.74 | 247.01 | 275.86 |
| Punjab | 2,666.28 | 2,977.34 | 3,321.47 | 3,549.08 | 3,915.43 | 4,278.70 |
| Rajasthan | 4,343.66 | 4,930.07 | 5,483.91 | 6,064.65 | 6,727.07 | - |
| Sikkim | 111.65 | 123.38 | 138.62 | 154.07 | 169.54 | 188.52 |
| Tamil Nadu | 7,514.86 | 8,554.76 | 9,692.16 | 10,727.75 | 11,619.63 | 12,985.11 |
| Telangana | 3,594.34 | 4,015.94 | 4,515.80 | 5,056.64 | 5,675.88 | 6,462.65 |
| Tripura | 192.08 | 216.63 | 255.93 | 296.67 | - | - |
| Uttaranchal | 1,153.28 | 1,316.13 | 1,490.74 | 1,614.39 | 1,761.71 | 1,951.92 |
| Uttar Pradesh | 7,240.50 | 8,223.93 | 9,403.56 | 10,117.90 | 11,208.36 | 12,751.41 |
| West Bengal | - | - | - | - | - | - |

Source: <https://www.rbi.org.in/>

Appendix 1.7: Gross State Domestic Product (GSDP) at Constant Prices (2011-12)

(Figures in Rs. Billion)

| States | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Andaman & Nicobar | 39.79 | 41.57 | 44.89 | 47.42 | 51.33 | - |
| Andhra Pradesh | 3,794.02 | 3,806.29 | 4,071.15 | 4,417.41 | 4,901.34 | 5,470.21 |
| Arunachal Pradesh | 110.63 | 112.99 | 123.38 | 143.76 | 167.44 | - |
| Assam | 1,431.75 | 1,473.42 | 1,545.25 | 1,652.12 | 1,789.3 | - |
| Bihar | 2,471.44 | 2,568.51 | 2,696.5 | 2,794.82 | 3,005.66 | 3,315.72 |
| Chandigarh | 187.68 | 205.63 | 223.92 | 229.51 | 247.45 | - |
| Chhattisgarh | 1,580.74 | 1,659.37 | 1,822.29 | 1,960.23 | 2,090.12 | 2,239.32 |
| Delhi | 3,437.67 | 3,665.38 | 3,917.18 | 4,229.2 | 4,602.17 | 4,982.17 |
| Goa | 423.67 | 358.5 | 315.68 | 401.16 | 447.17 | - |
| Gujarat | 6,156.06 | 6,826.5 | 7,342.84 | 8,114.28 | 9,013.75 | - |
| Haryana | 2,975.39 | 3,205.7 | 3,467.99 | 3,666.36 | 3,996.46 | 4,346.08 |
| Himachal Pradesh | 727.2 | 773.84 | 828.47 | 890.68 | 972.07 | 1,039.14 |
| Jammu & Kashmir | 782.56 | 807.75 | 850.87 | 848.24 | 972.89 | - |
| Jharkhand | 1,509.18 | 1,632.5 | 1,658.16 | 1,865.34 | 1,975.36 | 2,127.21 |
| Karnataka | 6,060.1 | 6,432.92 | 7,048.49 | 7,519.08 | 8,148.03 | 8,738.54 |
| Kerala | 3,640.48 | 3,876.93 | 4,027.81 | 4,199.56 | 4,476.92 | - |
| Madhya Pradesh | 3,155.61 | 3,514.61 | 3,641.97 | 3,839.94 | 4,146.07 | 4,652.12 |
| Maharashtra | 12,759.48 | 13,524.71 | 14,512.08 | 15,302.11 | 16,597.76 | - |
| Manipur | 129.15 | 129.85 | 141.16 | 151 | 158.56 | - |
| Meghalaya | 199.18 | 203.54 | 207.26 | 201.58 | 219.03 | - |
| Mizoram | 72.59 | 77.78 | 90.38 | 112.61 | 124.88 | - |
| Nagaland | 121.77 | 128.68 | 137.93 | 143.99 | 148.51 | - |
| Orissa | 2,278.72 | 2,383.7 | 2,591.79 | 2,747.21 | 2,912.27 | 3,143.64 |
| Pondicherry | 168.18 | 173.1 | 191.7 | 182.07 | 200.89 | 217.04 |
| Punjab | 2,666.28 | 2,808.23 | 2,994.5 | 3,120.25 | 3,289.73 | 3,484.87 |
| Rajasthan | 4,343.66 | 4,551.55 | 4,809.82 | 5,119.87 | 5,459.91 | - |
| Sikkim | 111.65 | 114.21 | 121.14 | 130.71 | 140.87 | 150.95 |
| Tamil Nadu | 7,514.86 | 7,921.64 | 8,522.13 | 8,938.96 | 9,486.74 | 10,190.78 |
| Telangana | 3,594.34 | 3,692.62 | 3,886.94 | 4,152.1 | 4,520.63 | 4,979.57 |
| Tripura | 192.08 | 208.73 | 228.19 | 250.86 | - | - |
| Uttaranchal | 1,153.28 | 1,237.1 | 1,341.82 | 1,412.78 | 1,521.75 | 1,628.24 |
| Uttar Pradesh | 7,240.5 | 7,582.05 | 8,020.7 | 8,344.32 | 9,012.57 | 9,675.17 |
| West Bengal | - | - | - | - | - | - |

Source: <https://www.rbi.org.in/>

Appendix: 2.1: Budget at a glance

(Rs. In crore)

| Sources | | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 |
|-----------|------------------------------------|-----------------|-----------------|-----------------|-----------------|
| | | Actual | Actual | RE | BE |
| 1. | Revenue Receipts | 31564.56 | 40638.35 | 47053.93 | 65607.42 |
| | <i>% Growth</i> | <i>2076.68%</i> | <i>28.75%</i> | <i>15.79%</i> | <i>39.43%</i> |
| 2. | Tax Revenue | 19836.82 | 27447.70 | 32441.17 | 40934.69 |
| | <i>% Growth</i> | <i>8.28%</i> | <i>38.37%</i> | <i>18.19%</i> | <i>26.18%</i> |
| (a) | State's share of Central Taxes | 9487.01 | 15968.75 | 19141.92 | 21034.19 |
| | <i>% Growth</i> | <i>6.13%</i> | <i>68.32%</i> | <i>19.87%</i> | <i>9.89%</i> |
| (b) | State's Own Taxes | 10349.81 | 11478.95 | 13299.25 | 19900.50 |
| | <i>% Growth</i> | <i>10.34%</i> | <i>10.91%</i> | <i>15.86%</i> | <i>49.64%</i> |
| 3. | Non-Tax Revenue | 11727.74 | 13190.65 | 14612.76 | 24672.73 |
| | <i>% Growth</i> | <i>50.02%</i> | <i>12.47%</i> | <i>10.78%</i> | <i>68.84%</i> |
| (a) | State's Own Non-Taxes | 4335.06 | 5853.01 | 5351.41 | 11258.16 |
| | <i>% Growth</i> | <i>15.52%</i> | <i>35.02%</i> | <i>-8.57%</i> | <i>110.38%</i> |
| (b) | Grants-in-Aid from GOI | 7392.68 | 7337.64 | 9261.35 | 13414.57 |
| | <i>% Growth</i> | <i>81.86%</i> | <i>-0.74%</i> | <i>26.22%</i> | <i>44.84%</i> |
| 4. | Capital Receipts | 8476.94 | 13798.92 | 12308.75 | 10066.00 |
| | <i>% Growth</i> | <i>95.93%</i> | <i>62.78%</i> | <i>-10.80%</i> | <i>-18.22%</i> |
| (a) | Recoveries of Loans | 33.06 | 31.06 | 38.45 | 66.00 |
| | <i>% Growth</i> | <i>41.77%</i> | <i>-6.05%</i> | <i>23.79%</i> | <i>71.65%</i> |
| (b) | Other Receipts | 0.00 | 0.00 | 0.00 | 0.00 |
| | <i>% Growth</i> | <i>0.00%</i> | <i>0.00%</i> | <i>0.00%</i> | <i>0.00%</i> |
| (c) | Borrowing and Other Liabilities | 8443.88 | 13767.86 | 12270.30 | 10000.00 |
| | <i>% Growth</i> | <i>96.23%</i> | <i>63.05%</i> | <i>-10.88%</i> | <i>-18.50%</i> |
| 5. | Total Receipts (1+4) | 40041.50 | 54437.27 | 59362.68 | 75673.42 |
| | <i>% Growth</i> | <i>31.44%</i> | <i>35.95%</i> | <i>9.05%</i> | <i>27.48%</i> |
| 6. | Non-Plan Expenditure | 21296.12 | 23150.20 | 25097.46 | 31169.74 |
| | <i>% Growth</i> | <i>10.47%</i> | <i>8.71%</i> | <i>8.41%</i> | <i>24.19%</i> |
| 7. | On Revenue Account of Which | 19358.98 | 20759.81 | 22895.38 | 27930.26 |
| | <i>% Growth</i> | <i>12.65%</i> | <i>7.24%</i> | <i>10.29%</i> | <i>21.99%</i> |
| (a) | Interest Payments | 2929.15 | 3320.08 | 4172.25 | 4467.04 |
| | <i>% Growth</i> | <i>12.04%</i> | <i>13.35%</i> | <i>25.67%</i> | <i>7.07%</i> |
| (b) | Salary | 7381.55 | 8177.92 | 8888.96 | 10944.83 |
| | <i>% Growth</i> | <i>6.45%</i> | <i>10.79%</i> | <i>8.69%</i> | <i>23.13%</i> |
| (c) | Pension | 3465.32 | 3990.01 | 4135.29 | 5791.43 |
| | <i>% Growth</i> | <i>-0.55%</i> | <i>15.14%</i> | <i>3.64%</i> | <i>40.05%</i> |
| 8. | On Capital Account of Which | 1937.14 | 2390.39 | 2202.08 | 3239.48 |
| | <i>% Growth</i> | <i>-7.43%</i> | <i>23.40%</i> | <i>-7.88%</i> | <i>47.11%</i> |
| (a) | Internal Debt of the State | 1721.71 | 2079.42 | 1920.39 | 2833.23 |
| | <i>% Growth</i> | <i>-7.34%</i> | <i>20.78%</i> | <i>-7.65%</i> | <i>47.53%</i> |
| (b) | Loans and Adv. from GOI | 158.17 | 166.51 | 157.50 | 218.95 |
| | <i>% Growth</i> | <i>14.00%</i> | <i>5.27%</i> | <i>-5.41%</i> | <i>39.01%</i> |
| (c) | Capital Expenditure | 22.82 | 72.23 | 47.04 | 51.38 |
| | <i>% Growth</i> | <i>44.30%</i> | <i>216.52%</i> | <i>-34.87%</i> | <i>9.23%</i> |
| (d) | Loans and Advances | 34.44 | 72.23 | 77.15 | 135.93 |

| Sources | | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 |
|------------|---|------------------|------------------|------------------|------------------|
| | | Actual | Actual | RE | BE |
| | % Growth | -56.90% | 109.73% | 6.81% | 76.19% |
| 9. | Plan Expenditure | 18745.38 | 31287.08 | 34265.22 | 44503.68 |
| | % Growth | 67.58% | 66.91% | 9.52% | 29.88% |
| (a) | On Revenue Account | 12435.92 | 15793.03 | 22193.66 | 29931.06 |
| | % Growth | 97.79% | 27.00% | 40.53% | 34.86% |
| (b) | of which, Grants for creation of Capital Assets | 3652.09 | | | 8049.22 |
| | % Growth | 0.00% | -100.00% | 0.00% | 0.00% |
| (c) | On Capital Account | 6309.46 | 15494.05 | 12071.56 | 14572.62 |
| | % Growth | 28.80% | 145.57% | -22.09% | 20.72% |
| 10. | Total Expenditure (6+9) | 40041.50 | 54437.27 | 59362.68 | 75673.42 |
| | % Growth | 31.44% | 35.95% | 9.05% | 27.48% |
| (a) | Revenue Expenditure (7+9a) | 31794.90 | 36552.83 | 45089.04 | 57861.32 |
| | % Growth | 35.46% | 14.96% | 23.35% | 28.33% |
| (b) | Capital Expenditure (8+9b) | 8246.60 | 17884.44 | 14273.64 | 17812.10 |
| | % Growth | 17.95% | 116.87% | -20.19% | 24.79% |
| 11. | Revenue Deficit (10a-1) | 230.34 | -4085.52 | -1964.89 | -7746.10 |
| | % of GSDP * | 0.11 | -1.77 | -0.77 | -2.77 |
| 12. | Effective Revenue Deficit (11-9b) @ | -3421.75 | -4085.52 | -1964.89 | -15795.32 |
| | % of GSDP * | -1.57 | -1.77 | -0.77 | -5.65 |
| 13. | Fiscal Deficit {10-(1+4a+4b+8a+8b)} | 6564.00 | 11521.93 | 10192.41 | 6947.83 |
| | % of GSDP ^s | 3.00 | 4.98 | 4.02 | 2.49 |
| 14. | Primary Deficit (13-7a) | 3634.85 | 8201.85 | 6020.16 | 2480.78 |
| | % of GSDP | 1.66 | 3.55 | 2.37 | 0.89 |
| | GSDP | 218525.17 | 231294.10 | 253536.11 | 279451.66 |
| | % of Non-Plan Expenditure | 53.19 | 42.53 | 42.28 | 41.19 |
| | % of Salary of Non-Plan | 34.66 | 35.33 | 35.42 | 35.11 |
| | % of Interest Payment of Non-Plan | 7.32 | 6.10 | 7.03 | 5.90 |
| | % of Pension of Non-Plan | 8.65 | 7.33 | 6.97 | 7.65 |

Source: Department of Finance, Govt. of Jharkhand, Note: Negative – Deficit means surplus

Appendix 2.2: Year Wise Debt Position

(Rs. In crore)

| Year (Actual) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 = (2 to 10) | 12 | 13 | 14 | 15 | 16 | 17 | 18 | |
|----------------------|----------------|-----------------|--------------------|-----------------|-----------------|-----------------------|-----------------|--------------------|------------------|------------------|---------------------------|-----------------|---------------|-------------------|-----------------|-----------|----------------------------|------------------------|--|
| | | GOI | Borrowing from RBI | Power Bond/ | Negotiated Loan | Ways & Means Advances | NSSF Fund | GPF Provident Fund | Reserve Funds | Deposits | Gross Borrowing (2 to 10) | Repayment (-) | Net Borrowing | Borrowing Ceiling | Cumulative Debt | GSDP | % of Net Borrowing of GSDP | Total Debt / GDP Ratio | |
| 15.11.2000 (Balance) | | | | | | | | | | | | | 5961.94 | | 5961.94 | | | | |
| 2000-01 | 143.20 | 122.61 | 0.00 | 0.00 | 0.00 | 52.05 | 0.00 | 125.79 | 233.44 | 233.44 | 677.09 | 400.85 | 276.24 | 828.49 | 6238.18 | 27616.38 | 1.00% | 22.59% | |
| 2001-02 | 388.93 | 370.28 | 0.00 | 0.00 | 0.00 | 111.92 | 826.18 | 169.59 | 947.92 | 947.92 | 2714.82 | 1148.63 | 1566.19 | 986.30 | 7804.37 | 32876.64 | 4.76% | 23.74% | |
| 2002-03 | 407.72 | 454.97 | 0.00 | 1.24 | 0.00 | 0.00 | 1025.31 | 411.16 | 1125.15 | 1125.15 | 3425.55 | 2306.60 | 1118.95 | 1315.07 | 8923.32 | 43835.51 | 2.55% | 20.36% | |
| 2003-04 | 471.54 | 574.90 | 0.00 | 0.00 | 0.00 | 320.93 | 1375.89 | 367.96 | 1230.72 | 1230.72 | 4341.94 | 2695.78 | 1646.16 | 1584.42 | 10569.48 | 52813.87 | 3.12% | 20.01% | |
| 2004-05 | 513.36 | 564.66 | 0.00 | 899.06 | 0.00 | 0.00 | 1593.02 | 254.61 | 1173.85 | 1173.85 | 4998.56 | 2056.35 | 2942.21 | 1792.73 | 13511.69 | 59757.72 | 4.92% | 22.61% | |
| 2005-06 | 5.78 | 364.12 | 0.00 | 1496.91 | 0.00 | 0.00 | 1633.81 | 408.77 | 1373.16 | 1373.16 | 5282.55 | 1434.17 | 3848.38 | 1827.02 | 17360.07 | 60900.54 | 6.32% | 28.51% | |
| 2006-07 | 16.85 | 400.52 | 0.00 | 192.87 | 0.00 | 229.75 | 1255.75 | 453.05 | 1608.04 | 1608.04 | 4156.83 | 2099.53 | 2057.30 | 2008.04 | 19417.37 | 66934.75 | 3.07% | 29.01% | |
| 2007-08 | 13.99 | 1192.51 | 0.00 | 617.96 | 0.00 | 0.00 | 198.19 | 478.77 | 3379.33 | 3379.33 | 5880.75 | 3683.54 | 2197.21 | 2518.49 | 21614.58 | 83949.59 | 2.62% | 25.75% | |
| 2008-09 | 2.58 | 1486.00 | 0.00 | 769.96 | 0.00 | 0.00 | 178.02 | 584.46 | 13.20 | 4175.32 | 7209.54 | 4740.14 | 2469.40 | 2633.82 | 24083.98 | 87793.93 | 2.81% | 27.43% | |
| 2009-10 | -10.03 | 1843.98 | 0.00 | 672.38 | 0.00 | 0.00 | 863.11 | 686.66 | 489.35 | 4075.38 | 8620.83 | 5539.79 | 3081.04 | 3018.62 | 27165.02 | 100620.68 | 3.06% | 27.00% | |
| 2010-11 | 131.95 | 500.00 | 0.00 | 586.73 | 0.00 | 0.00 | 1227.83 | 571.73 | 0.31 | 3558.07 | 6576.62 | 5086.58 | 1490.04 | 3466.05 | 28655.06 | 115535.14 | 1.29% | 24.80% | |
| 2011-12* | 32.53 | 1254.05 | 0.00 | 873.98 | 0.00 | 229.19 | 281.48 | 613.38 | 138.58 | 5138.27 | 8561.46 | 6552.75 | 2008.71 | 4527.53 | 30663.77 | 150917.59 | 1.33% | 20.32% | |
| 2012-13 | 238.65 | 3600.00 | 0.00 | 770.33 | 0.00 | 368.79 | 221.23 | 667.69 | 279.81 | 8571.31 | 14717.81 | 10512.59 | 4205.22 | 5241.71 | 34868.99 | 174723.69 | 2.41% | 19.96% | |
| 2013-14 | 106.15 | 2950.00 | 0.00 | 1031.56 | 0.00 | 315.58 | 299.62 | 760.20 | 293.19 | 7084.37 | 12840.66 | 10115.80 | 2724.86 | 5657.00 | 37593.84 | 188566.71 | 1.45% | 19.94% | |
| 2014-15 | 153.21 | 4950.00 | 0.00 | 814.23 | 0.00 | 0.00 | 772.68 | 842.56 | 307.85 | 11968.04 | 19808.57 | 13833.32 | 5975.25 | 6393.00 | 43569.09 | 217107.18 | 2.75% | 20.07% | |
| 2015-16 | 165.02 | 5350.00 | 5553.37 | 1044.71 | 0.00 | 0.00 | 1131.55 | 830.10 | 521.68 | 19246.91 | 33843.34 | 20881.94 | 12961.40 | 6360.00 | 56530.49 | 241955.00 | 5.36% | 23.36% | |
| 2016-17 (RE) | 234.29 | 5154.00 | 0.00 | 1693.13 | 0.00 | 0.00 | 0.00 | 872.60 | 452.88 | 15954.56 | 24361.46 | 14062.96 | 10298.50 | 7993.00 | 66828.99 | 270517.82 | 3.81% | 24.70% | |
| 2017-18 (BE) | 500.00 | 7000.00 | 0.00 | 2215.00 | 0.00 | 0.00 | 285.00 | 971.21 | 840.37 | 22518.89 | 34330.47 | 26686.31 | 7644.16 | 7993.00 | 74473.15 | 303447.83 | 2.52% | 24.54% | |
| Total | 3515.72 | 38132.60 | 5553.37 | 13680.04 | 1528.21 | 13168.67 | 10070.29 | 3337.21 | 113362.74 | 202348.85 | 133837.64 | 74473.15 | | | | | | | |

Source: Department of Finance, Govt. of Jharkhand, Note: * Rs. 5553.37 crore was taken under UDAY Scheme which is not to be reckoned against the normal permissible net borrowing ceiling for 2015-16.

Appendix 4.1: Gender wise Sanction of PMAY-G (2017-18)

(In Nos.)

| Sl. No. | Districts | Target fixed by District | Sanctions Made | Women | Breakup of sanction | | | | Breakup of completion | | | |
|---------|---------------------|--------------------------|----------------|---------------|---------------------|--------------------------|--------------|--------------|-----------------------|--------------|--------------------------|--------|
| | | | | | Men | Joint (Wife and Husband) | Others | Completed | Women | Men | Joint (Wife and Husband) | Others |
| A | B | C | D | E | F | G | H | I | J | K | L | |
| 1 | Bokaro | 10293 | 2843 | 6489 | 961 | 0 | 5785 | 1537 | 3698 | 550 | 0 | |
| 2 | Chatra | 13707 | 1547 | 5262 | 6897 | 0 | 6666 | 778 | 2441 | 3447 | 0 | |
| 3 | Deoghar | 7012 | 538 | 4986 | 1488 | 0 | 3179 | 203 | 2318 | 658 | 0 | |
| 4 | Dhanbad | 8385 | 861 | 6599 | 931 | 0 | 3760 | 360 | 3016 | 384 | 0 | |
| 5 | Dumka | 15389 | 2737 | 8563 | 4084 | 0 | 3974 | 623 | 2196 | 1155 | 0 | |
| 6 | East Singhbhum | 10720 | 2027 | 4787 | 3906 | 0 | 4868 | 849 | 1847 | 2172 | 0 | |
| 7 | Garhwa | 16142 | 3594 | 10125 | 2421 | 0 | 3278 | 751 | 1924 | 603 | 0 | |
| 8 | Giridih | 11177 | 2322 | 6808 | 2059 | 0 | 5737 | 1180 | 3437 | 1120 | 0 | |
| 9 | Godda | 9365 | 2229 | 1821 | 5305 | 0 | 3018 | 786 | 643 | 1589 | 0 | |
| 10 | Gumla | 7500 | 1111 | 5561 | 829 | 0 | 3291 | 484 | 2415 | 392 | 0 | |
| 11 | Hazaribagh | 8293 | 1201 | 5560 | 1502 | 0 | 4464 | 596 | 3176 | 686 | 0 | |
| 12 | Jamtara | 7776 | 1256 | 6435 | 85 | 0 | 3536 | 512 | 2986 | 38 | 0 | |
| 13 | Khunti | 8576 | 1335 | 3518 | 3730 | 0 | 3486 | 588 | 1391 | 1507 | 0 | |
| 14 | Koderma | 2783 | 799 | 1695 | 288 | 0 | 1904 | 567 | 1132 | 205 | 0 | |
| 15 | Latehar | 8248 | 965 | 6455 | 828 | 0 | 3384 | 418 | 2565 | 401 | 0 | |
| 16 | Lohardaga | 3789 | 883 | 2830 | 76 | 0 | 2230 | 499 | 1686 | 45 | 0 | |
| 17 | Pakur | 11613 | 1017 | 6475 | 4120 | 0 | 1362 | 103 | 836 | 423 | 0 | |
| 18 | Palamu | 14861 | 1500 | 6805 | 6556 | 0 | 3692 | 332 | 1620 | 1740 | 0 | |
| 19 | Ramgarh | 2879 | 499 | 2277 | 102 | 0 | 2484 | 423 | 1965 | 95 | 0 | |
| 20 | Ranchi | 8559 | 1007 | 1539 | 6013 | 0 | 4907 | 608 | 969 | 3330 | 0 | |
| 21 | Sahebganj | 13366 | 2312 | 9528 | 1511 | 0 | 3715 | 567 | 2726 | 421 | 0 | |
| 22 | Saraikela Kharsawan | 9032 | 1514 | 4455 | 3062 | 0 | 4155 | 668 | 2203 | 1283 | 0 | |
| 23 | Simdega | 5267 | 1142 | 3642 | 479 | 0 | 2418 | 519 | 1671 | 226 | 0 | |
| 24 | West Singhbhum | 7656 | 1502 | 4638 | 1564 | 0 | 6089 | 1201 | 3668 | 1220 | 0 | |
| | Total | 222388 | 36741 | 126853 | 58797 | 0 | 91382 | 15152 | 52529 | 23690 | 0 | |

Source: www.arwaassoft.nic.in

Appendix 4.2: Social Category Wise Sanction of PMAY-G (2017-18)

(In Nos.)

| Sl. No. | Districts | Target fixed by District | Sanctions Made | Category wise Breakup of sanction | | | | | Completed | Category wise Breakup of completion | | | | |
|---------|----------------------|--------------------------|----------------|-----------------------------------|-------|------------|----|--------|-----------|-------------------------------------|-------|------------|----|--------|
| | | | | ST | SC | Minorities | PH | Others | | ST | SC | Minorities | PH | Others |
| | | | | D | E | F | G | H | | J | K | L | M | N |
| 1 | Bokaro | 10293 | 10293 | 2636 | 2601 | 2026 | 2 | 5056 | 5785 | 1313 | 1368 | 1228 | 2 | 3104 |
| 2 | Chatra | 13707 | 13707 | 963 | 7282 | 1154 | 3 | 5462 | 6666 | 415 | 3169 | 674 | 1 | 3082 |
| 3 | Deoghar | 7012 | 7012 | 1078 | 1090 | 1934 | 2 | 4844 | 3179 | 372 | 461 | 1044 | 0 | 2346 |
| 4 | Dhanbad | 8385 | 8391 | 2505 | 1478 | 969 | 9 | 4408 | 3760 | 751 | 669 | 569 | 3 | 2340 |
| 5 | Dumka | 15389 | 15384 | 11270 | 1035 | 1404 | 0 | 3079 | 3974 | 2425 | 376 | 600 | 0 | 1173 |
| 6 | East Singhbhum | 10720 | 10722 | 7679 | 937 | 97 | 2 | 2106 | 4868 | 3266 | 444 | 55 | 0 | 1158 |
| 7 | Garhwa | 16142 | 16141 | 2859 | 6511 | 5227 | 2 | 6771 | 3278 | 432 | 1268 | 1211 | 1 | 1578 |
| 8 | Giridih | 11177 | 11189 | 2303 | 2196 | 2494 | 0 | 6690 | 5737 | 745 | 1189 | 1379 | 0 | 3803 |
| 9 | Godda | 9365 | 9357 | 3685 | 1757 | 1633 | 0 | 3915 | 3018 | 716 | 624 | 802 | 0 | 1678 |
| 10 | Gumla | 7500 | 7501 | 5045 | 225 | 365 | 0 | 2231 | 3291 | 1966 | 98 | 185 | 0 | 1227 |
| 11 | Hazaribagh | 8293 | 8272 | 1000 | 2774 | 1240 | 2 | 4498 | 4464 | 418 | 1418 | 699 | 2 | 2628 |
| 12 | Jamtara | 7776 | 7776 | 2676 | 1118 | 1447 | 1 | 3982 | 3536 | 728 | 581 | 833 | 0 | 2227 |
| 13 | Khunti | 8576 | 8583 | 6560 | 415 | 84 | 0 | 1608 | 3486 | 2395 | 197 | 51 | 0 | 894 |
| 14 | Koderma | 2783 | 2783 | 140 | 828 | 355 | 3 | 1815 | 1904 | 53 | 504 | 281 | 0 | 1347 |
| 15 | Latehar | 8248 | 8248 | 4195 | 2308 | 678 | 0 | 1745 | 3384 | 1604 | 881 | 379 | 0 | 899 |
| 16 | Lohardaga | 3789 | 3789 | 2184 | 160 | 915 | 2 | 1445 | 2230 | 1106 | 117 | 698 | 0 | 1007 |
| 17 | Pakur | 11613 | 11613 | 5916 | 573 | 3098 | 3 | 5124 | 1362 | 103 | 52 | 855 | 2 | 1207 |
| 18 | Palamu | 14861 | 14861 | 1529 | 6008 | 3036 | 3 | 7324 | 3692 | 271 | 1134 | 1117 | 2 | 2287 |
| 19 | Ramgarh | 2879 | 2879 | 651 | 256 | 567 | 1 | 1972 | 2484 | 546 | 213 | 466 | 1 | 1725 |
| 20 | Ranchi | 8559 | 8559 | 4567 | 555 | 486 | 2 | 3437 | 4907 | 2336 | 325 | 395 | 0 | 2246 |
| 21 | Sahebganj | 13366 | 13352 | 6510 | 882 | 2607 | 3 | 5960 | 3715 | 894 | 321 | 1213 | 2 | 2500 |
| 22 | Saraikeela Kharsawan | 9032 | 9032 | 4416 | 864 | 87 | 3 | 3752 | 4155 | 1591 | 355 | 48 | 3 | 2209 |
| 23 | Simdega | 5267 | 5267 | 3916 | 620 | 36 | 2 | 731 | 2418 | 1663 | 303 | 25 | 0 | 452 |
| 24 | West Singhbhum | 7656 | 7704 | 4769 | 343 | 1 | 3 | 2592 | 6089 | 3678 | 275 | 0 | 3 | 2136 |
| | Total | 222388 | 222415 | 89052 | 42816 | 31940 | 48 | 90547 | 91382 | 29787 | 16342 | 14807 | 22 | 45253 |

Source: www.arwaassoft.nic.in

Appendix 5.1: District-wise Urban Population of Jharkhand, 2011 and 2001 Censuses

| Districts | Total Population 2011 | Urban Population 2011 | Percentage of Urban to Total Population | |
|---------------------|--------------------------|--------------------------|--|--------------|
| | | | 2011 | 2001 |
| Dhanbad | 2684487 | 1560394 | 58.13 | 52.37 |
| Purbi Singhbhum | 2293919 | 1274591 | 55.56 | 55.03 |
| Bokaro | 2062330 | 983644 | 47.70 | 45.26 |
| Ramgarh | 949443 | 418955 | 44.13 | 40.13 |
| Ranchi | 2914253 | 1257335 | 43.14 | 40.36 |
| Saraikela-Kharsawan | 1065056 | 258746 | 24.29 | 18.83 |
| Kodarma | 716259 | 141246 | 19.72 | 17.37 |
| Deoghar | 1492073 | 258361 | 17.32 | 13.72 |
| Hazaribagh | 1734495 | 275307 | 15.87 | 13.37 |
| Pashchimi Singhbhum | 1502338 | 218034 | 14.51 | 15.49 |
| Sahibganj | 1150567 | 159666 | 13.88 | 10.58 |
| Lohardaga | 461790 | 57411 | 12.43 | 12.67 |
| Palamu | 1939869 | 226003 | 11.65 | 6.43 |
| Jamtara | 791042 | 75746 | 9.58 | 8.54 |
| Giridih | 2445474 | 208024 | 8.51 | 6.43 |
| Khunti | 531885 | 44982 | 8.46 | 6.73 |
| Pakur | 900422 | 67512 | 7.50 | 5.13 |
| Simdega | 599578 | 42944 | 7.16 | 6.61 |
| Latehar | 726978 | 51858 | 7.13 | 4.69 |
| Dumka | 1321442 | 90178 | 6.82 | 5.34 |
| Gumla | 1025213 | 65081 | 6.35 | 4.78 |
| Chatra | 1042886 | 62954 | 6.04 | 5.31 |
| Garhwa | 1322784 | 69670 | 5.27 | 4.12 |
| Godda | 1313551 | 64419 | 4.90 | 3.53 |
| Jharkhand | 32988134 | 7933061 | 24.05 | 22.24 |

Source: Primary Census Abstract, Jharkhand, Census of India, 2011

Appendix 5.2: District-wise Decadal Growth of Urban Population (2001-2011)

| Districts | Urban Population 2011 | Urban Population 2001 | Decadal Growth of Urban Population (2001-2011) |
|---------------------|-----------------------|-----------------------|--|
| Bokaro | 983644 | 804657 | 22.24 |
| Chatra | 62954 | 42020 | 49.82 |
| Deoghar | 258361 | 159851 | 61.63 |
| Dhanbad | 1560394 | 1255358 | 24.30 |
| Dumka | 90178 | 59118 | 52.54 |
| Garhwa | 69670 | 42639 | 63.40 |
| Giridih | 208024 | 122364 | 70.00 |
| Godda | 64419 | 37008 | 74.07 |
| Gumla | 65081 | 39761 | 63.68 |
| Hazaribagh | 275307 | 192224 | 43.22 |
| Jamtara | 75746 | 55794 | 35.76 |
| Khunti | 44982 | 29282 | 53.62 |
| Kodarma | 141246 | 86749 | 62.82 |
| Latehar | 51858 | 26300 | 97.18 |
| Lohardaga | 57411 | 46196 | 24.28 |
| Pakur | 67512 | 36029 | 87.38 |
| Palamu | 226003 | 98793 | 128.76 |
| Pashchimi Singhbhum | 218034 | 191079 | 14.11 |
| Purbi Singhbhum | 1274591 | 1091204 | 16.81 |
| Ramgarh | 418955 | 336845 | 24.38 |
| Ranchi | 1257335 | 948539 | 32.55 |
| Sahibganj | 159666 | 98131 | 62.71 |
| Saraikela-Kharsawan | 258746 | 159819 | 61.90 |
| Simdega | 42944 | 33981 | 26.38 |
| Jharkhand | 7933061 | 5993741 | 32.36 |

Source: Primary Census Abstract, Jharkhand, Census of India, 2011

Appendix 5.3: District-wise Condition of Urban Census Houses, 2011

| Districts | Total | Good | Liveable | Dilapidated | % Good | % Liveable | % Dilapidated |
|---------------------|----------------|---------------|---------------|--------------|-------------|-------------|---------------|
| Garhwa | 13213 | 6430 | 5878 | 905 | 48.7 | 44.5 | 6.8 |
| Chatra | 10673 | 5287 | 4949 | 437 | 49.5 | 46.4 | 4.1 |
| Kodarma | 23853 | 11908 | 10660 | 1285 | 49.9 | 44.7 | 5.4 |
| Giridih | 35201 | 20979 | 13031 | 1191 | 59.6 | 37.0 | 3.4 |
| Deoghar | 45420 | 26536 | 16977 | 1907 | 58.4 | 37.4 | 4.2 |
| Godda | 11518 | 6801 | 4235 | 482 | 59.0 | 36.8 | 4.2 |
| Sahibganj | 30708 | 14035 | 14270 | 2403 | 45.7 | 46.5 | 7.8 |
| Pakur | 13216 | 6291 | 6167 | 758 | 47.6 | 46.7 | 5.7 |
| Dhanbad | 292022 | 150922 | 129823 | 11277 | 51.7 | 44.5 | 3.9 |
| Bokaro | 187417 | 112697 | 68738 | 5982 | 60.1 | 36.7 | 3.2 |
| Lohardaga | 11007 | 6536 | 3985 | 486 | 59.4 | 36.2 | 4.4 |
| Purbi Singhbhum | 254026 | 182677 | 65448 | 5901 | 71.9 | 25.8 | 2.3 |
| Palamu | 39380 | 21478 | 15774 | 2128 | 54.5 | 40.1 | 5.4 |
| Latehar | 9783 | 5318 | 3973 | 492 | 54.4 | 40.6 | 5.0 |
| Hazaribagh | 48356 | 30906 | 16023 | 1427 | 63.9 | 33.1 | 3.0 |
| Ramgarh | 79308 | 44928 | 31562 | 2818 | 56.7 | 39.8 | 3.6 |
| Dumka | 16999 | 10454 | 5687 | 858 | 61.5 | 33.5 | 5.0 |
| Jamtara | 14563 | 9210 | 4876 | 477 | 63.2 | 33.5 | 3.3 |
| Ranchi | 234110 | 149932 | 74554 | 9624 | 64.0 | 31.8 | 4.1 |
| Khunti | 8892 | 5232 | 3393 | 267 | 58.8 | 38.2 | 3.0 |
| Gumla | 12079 | 6838 | 4634 | 607 | 56.6 | 38.4 | 5.0 |
| Simdega | 7923 | 4430 | 3173 | 320 | 55.9 | 40.0 | 4.0 |
| Pashchimi Singhbhum | 43864 | 25426 | 16459 | 1979 | 58.0 | 37.5 | 4.5 |
| Saraikela | 52111 | 31235 | 19088 | 1788 | 59.9 | 36.6 | 3.4 |
| Jharkhand | 1495642 | 896486 | 543357 | 55799 | 59.9 | 36.3 | 3.7 |

Source: Computed from Census of India, 2011

Appendix 5.4: District-wise Urban Housing Amenities in Jharkhand: Exclusive Kitchen Availability, 2011

| Districts | Total Households | Households having Exclusive Kitchen Availability | | Households not having Exclusive Kitchen Availability | |
|---------------------|------------------|--|--------------|--|--------------|
| | | Number | Percentage | Number | Percentage |
| All India | 65133952 | 47796811 | 73.38 | 17328776 | 26.60 |
| State Total | 997697 | 635799 | 63.73 | 361896 | 36.27 |
| Bokaro | 104488 | 70973 | 67.92 | 33515 | 32.08 |
| Chatra | 8182 | 3390 | 41.43 | 4792 | 58.57 |
| Deoghar | 43401 | 25273 | 58.23 | 18128 | 41.77 |
| Dhanbad | 207141 | 105705 | 51.03 | 101436 | 48.97 |
| Dumka | 12243 | 6049 | 49.41 | 6194 | 50.59 |
| Garhwa | 11489 | 4346 | 37.83 | 7143 | 62.17 |
| Giridih | 19103 | 10894 | 57.03 | 8209 | 42.97 |
| Godda | 8598 | 4542 | 52.83 | 4056 | 47.17 |
| Gumla | 8007 | 4892 | 61.10 | 3115 | 38.90 |
| Hazaribagh | 24611 | 18134 | 73.68 | 6477 | 26.32 |
| Jamtara | 12185 | 5841 | 47.94 | 6344 | 52.06 |
| Khunti | 6742 | 2841 | 42.14 | 3901 | 57.86 |
| Kodarma | 18704 | 8951 | 47.86 | 9753 | 52.14 |
| Latehar | 5039 | 1743 | 34.59 | 3296 | 65.41 |
| Lohardaga | 10862 | 6650 | 61.22 | 4212 | 38.78 |
| Pakur | 9014 | 3419 | 37.93 | 5595 | 62.07 |
| Palamu | 24385 | 12542 | 51.43 | 11843 | 48.57 |
| Pashchimi Singhbhum | 19903 | 8133 | 40.86 | 11770 | 59.14 |
| Purbi Singhbhum | 162059 | 123864 | 76.43 | 38195 | 23.57 |
| Ramgarh | 14234 | 7131 | 50.10 | 7103 | 49.90 |
| Ranchi | 202794 | 160783 | 79.28 | 42011 | 20.72 |
| Sahibganj | 20733 | 8671 | 41.82 | 12060 | 58.17 |
| Saraikela-Kharsawan | 35847 | 26405 | 73.66 | 9442 | 26.34 |
| Simdega | 7933 | 4627 | 58.33 | 3306 | 41.67 |

Source: Socio-Economic and Caste Census of India (Urban), 2011

Appendix 5.5: District-wise Urban Housing Amenities in Jharkhand: Main Sources of Lighting (Electricity and Kerosene), 2011

| Districts | Total Households | Households having Main Sources of Lighting (Electricity) | | Households having Main Sources of Lighting (Kerosene) | |
|---------------------|------------------|--|--------------|---|-------------|
| | | Number | Percentage | Number | Percentage |
| All India | 65133952 | 61781150 | 94.85 | 2288286 | 3.51 |
| State Total | 997697 | 894200 | 89.63 | 62673 | 6.28 |
| Bokaro | 104488 | 95633 | 91.53 | 7090 | 6.79 |
| Chatra | 8182 | 5228 | 63.90 | 2441 | 29.83 |
| Deoghar | 43401 | 39836 | 91.79 | 2715 | 6.26 |
| Dhanbad | 207141 | 178103 | 85.98 | 8484 | 4.10 |
| Dumka | 12243 | 10415 | 85.07 | 1702 | 13.90 |
| Garhwa | 11489 | 8013 | 69.74 | 2993 | 26.05 |
| Giridih | 19103 | 17015 | 89.07 | 1754 | 9.18 |
| Godda | 8598 | 7349 | 85.47 | 1147 | 13.34 |
| Gumla | 8007 | 7025 | 87.74 | 864 | 10.79 |
| Hazaribagh | 24611 | 23373 | 94.97 | 1041 | 4.23 |
| Jamtara | 12185 | 10868 | 89.19 | 898 | 7.37 |
| Khunti | 6742 | 5696 | 84.49 | 806 | 11.95 |
| Kodarma | 18704 | 16439 | 87.89 | 2165 | 11.58 |
| Latehar | 5039 | 3553 | 70.51 | 1318 | 26.16 |
| Lohardaga | 10862 | 8983 | 82.70 | 1359 | 12.51 |
| Pakur | 9014 | 7574 | 84.02 | 1066 | 11.83 |
| Palamu | 24385 | 18915 | 77.57 | 4012 | 16.45 |
| Pashchimi Singhbhum | 19903 | 13324 | 66.94 | 1541 | 7.74 |
| Purbi Singhbhum | 162059 | 153977 | 95.01 | 6343 | 3.91 |
| Ramgarh | 14234 | 13602 | 95.56 | 466 | 3.27 |
| Ranchi | 202794 | 195689 | 96.50 | 5739 | 2.83 |
| Sahibganj | 20733 | 15875 | 76.57 | 4042 | 19.50 |
| Saraikela-Kharsawan | 35847 | 31590 | 88.12 | 944 | 2.63 |
| Simdega | 7933 | 6125 | 77.21 | 1743 | 21.97 |

Source: Socio-Economic and Caste Census of India (Urban), 2011

Appendix 5.6: District-wise Urban Housing Amenities in Jharkhand: Water-Seal Latrine Exclusively for the Household, 2011

| Districts | Total Households | Households having Water-Seal Latrine Exclusively for the Household | | Households not having Water-Seal Latrine Exclusively for the Household | |
|---------------------|------------------|--|--------------|--|--------------|
| | | Number | Percentage | Number | Percentage |
| All India | 65133952 | 53009282 | 81.39 | 12102684 | 18.58 |
| State Total | 997697 | 715367 | 71.70 | 282328 | 28.30 |
| Bokaro | 104488 | 76004 | 72.74 | 28484 | 27.26 |
| Chatra | 8182 | 4530 | 55.37 | 3652 | 44.63 |
| Deoghar | 43401 | 28647 | 66.01 | 14754 | 33.99 |
| Dhanbad | 207141 | 124744 | 60.22 | 82397 | 39.78 |
| Dumka | 12243 | 7940 | 64.85 | 4303 | 35.15 |
| Garhwa | 11489 | 5263 | 45.81 | 6226 | 54.19 |
| Giridih | 19103 | 14146 | 74.05 | 4957 | 25.95 |
| Godda | 8598 | 6114 | 71.11 | 2484 | 28.89 |
| Gumla | 8007 | 5903 | 73.72 | 2104 | 26.28 |
| Hazaribagh | 24611 | 21904 | 89.00 | 2707 | 11.00 |
| Jamtara | 12185 | 7410 | 60.81 | 4775 | 39.19 |
| Khunti | 6742 | 3432 | 50.90 | 3310 | 49.10 |
| Kodarma | 18704 | 10677 | 57.08 | 8027 | 42.92 |
| Latehar | 5039 | 2559 | 50.78 | 2480 | 49.22 |
| Lohardaga | 10862 | 7791 | 71.73 | 3071 | 28.27 |
| Pakur | 9014 | 4407 | 48.89 | 4607 | 51.11 |
| Palamu | 24385 | 14356 | 58.87 | 10029 | 41.13 |
| Pashchimi Singhbhum | 19903 | 8028 | 40.34 | 11875 | 59.66 |
| Purbi Singhbhum | 162059 | 138661 | 85.56 | 23398 | 14.44 |
| Ramgarh | 14234 | 8511 | 59.79 | 5723 | 40.21 |
| Ranchi | 202794 | 172258 | 84.94 | 30536 | 15.06 |
| Sahibganj | 20733 | 11736 | 56.61 | 8995 | 43.38 |
| Saraikele-Kharsawan | 35847 | 26194 | 73.07 | 9653 | 26.93 |
| Simdega | 7933 | 4152 | 52.34 | 3781 | 47.66 |

Source: Socio-Economic and Caste Census of India (Urban), 2011

Appendix 5.7: District-wise Urban Housing Amenities in Jharkhand: Waste Water-Outlet Connections for the Households, 2011

| Districts | Total Households | Households having Waste Water-Outlet Connections (Close Drainage) | | Households having Waste Water-Outlet Connections (Open Drainage) | | Households not having Waste Water-Outlet Connections | |
|----------------------|------------------|---|--------------|--|--------------|--|--------------|
| | | Number | Percentage | Number | Percentage | Number | Percentage |
| All India | 65133952 | 36585040 | 56.17 | 20148594 | 30.93 | 8378341 | 12.86 |
| State Total | 997697 | 402108 | 40.30 | 402108 | 40.30 | 207255 | 20.77 |
| Bokaro | 104488 | 42680 | 40.85 | 43706 | 41.83 | 18102 | 17.32 |
| Chatra | 8182 | 1911 | 23.36 | 2743 | 33.52 | 3528 | 43.12 |
| Deoghar | 43401 | 14374 | 33.12 | 17569 | 40.48 | 11458 | 26.40 |
| Dhanbad | 207141 | 50895 | 24.57 | 112045 | 54.09 | 44201 | 21.34 |
| Dumka | 12243 | 2069 | 16.90 | 6871 | 56.12 | 3303 | 26.98 |
| Garhwa | 11489 | 3326 | 28.95 | 3655 | 31.81 | 4508 | 39.24 |
| Giridih | 19103 | 7094 | 37.14 | 7909 | 41.40 | 4100 | 21.46 |
| Godda | 8598 | 3075 | 35.76 | 2951 | 34.32 | 2572 | 29.91 |
| Gumla | 8007 | 2585 | 32.28 | 2020 | 25.23 | 3402 | 42.49 |
| Hazaribagh | 24611 | 12792 | 51.98 | 8743 | 35.52 | 3076 | 12.50 |
| Jamtara | 12185 | 1770 | 14.53 | 4191 | 34.39 | 6224 | 51.08 |
| Khunti | 6742 | 839 | 12.44 | 1833 | 27.19 | 4070 | 60.37 |
| Kodarma | 18704 | 4762 | 25.46 | 8636 | 46.17 | 5306 | 28.37 |
| Latehar | 5039 | 1790 | 35.52 | 727 | 14.43 | 2522 | 50.05 |
| Lohardaga | 10862 | 2411 | 22.20 | 3889 | 35.80 | 4562 | 42.00 |
| Pakur | 9014 | 1580 | 17.53 | 3709 | 41.15 | 3725 | 41.32 |
| Palamu | 24385 | 7331 | 30.06 | 11382 | 46.68 | 5672 | 23.26 |
| Pashchimi Singhbhum | 19903 | 5630 | 28.29 | 7393 | 37.15 | 6880 | 34.57 |
| Purbi Singhbhum | 162059 | 101988 | 62.93 | 43620 | 26.92 | 16451 | 10.15 |
| Ramgarh | 14234 | 3780 | 26.56 | 6533 | 45.90 | 3921 | 27.55 |
| Ranchi | 202794 | 101699 | 50.15 | 70861 | 34.94 | 30234 | 14.91 |
| Sahibganj | 20733 | 4802 | 23.16 | 8134 | 39.23 | 7795 | 37.60 |
| Saraikeela-Kharsawan | 35847 | 22295 | 62.19 | 7656 | 21.36 | 5896 | 16.45 |
| Simdega | 7933 | 630 | 7.94 | 1556 | 19.61 | 5747 | 72.44 |

Source: Socio-Economic and Caste Census of India (Urban), 2011

Appendix 6.1: Contribution to the state's GSDP of agriculture and animal husbandry sector

(base year 2011-12)

| Year | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 (A) | 2016-17 (Pr) |
|---|-----------|----------|----------|----------|-------------|--------------|
| Agriculture | 13420.99 | 16117.76 | 18121.03 | 20944.66 | 24311.79 | 28204.93 |
| Livestock | 4775.85 | 4594.16 | 4934.08 | 5625.03 | 5940.01 | 6272.94 |
| Total | 18196.84 | 20711.92 | 23055.11 | 26569.69 | 30251.8 | 34477.87 |
| Gross State Domestic Product (GSDP) | 150917.59 | 174723.7 | 188566.7 | 217107.2 | 241955 | 270517.82 |
| % Contribution of Agriculture & Livestock in Total GSDP | 12.06 | 11.85 | 12.23 | 12.24 | 12.5 | 12.75 |

Source: Agriculture Budget 2017-18, Government of Jharkhand

Appendix 6.2: District wise Kharif Season Final estimate of Area, production and yield from 2014 to 2016

Area- (ooo ha)/ Production – (ooo tones)/ Yield- (kg/ha)

| Districts | Kharif 2014 | | | Kharif 2015 | | | Kharif 2016 | | |
|----------------|----------------|---------------|-------------|----------------|----------------|-------------|----------------|----------------|-------------|
| | Area | Production | Yield | Area | Production | Yield | Area | Production | Yield |
| Ranchi | 8.746 | 26.238 | 3000 | 11.193 | 12.67 | 1132 | 11.392 | 33.037 | 2900 |
| Khunti | 5.011 | 11.024 | 2200 | 5.942 | 6.798 | 1144 | 7.111 | 18.638 | 2621 |
| Simdega | 6.001 | 15.003 | 2500 | 8 | 20 | 2500 | 8 | 20 | 2500 |
| Lohardagga | 7.338 | 10.435 | 1422 | 6.15 | 8.61 | 1400 | 5.908 | 17.924 | 3033.9 |
| East Singhbhum | 6.312 | 7.038 | 1115 | 11.016 | 11.6 | 1053 | 12.081 | 18.846 | 1560 |
| West Singhbhum | 6.9 | 7.866 | 1140 | 7.263 | 7.357 | 1013 | 6.848 | 6.937 | 1013 |
| Saraikela | 6.253 | 10.005 | 1600 | 5.9 | 8.26 | 1400 | 6.9 | 14.49 | 2100 |
| Palamu | 21.692 | 29.892 | 1378 | 26.037 | 22.6 | 868 | 26.979 | 47.213 | 1750 |
| Koderma | 7.365 | 12.889 | 1750 | 8.667 | 14.301 | 1650 | 7.589 | 13.281 | 1750 |
| Giridih | 20.875 | 23.902 | 1145 | 18.519 | 22.871 | 1235 | 20.687 | 49.752 | 2405 |
| Dhanbad | 1.419 | 2.869 | 2022 | 2.185 | 6.227 | 2850 | 2.386 | 5.965 | 2500 |
| Dumka | 19.552 | 62.566 | 3200 | 19.714 | 59.142 | 3000 | 20.975 | 52.438 | 2500 |
| Deoghar | 13.841 | 27.682 | 2000 | 17 | 25.857 | 1521 | 14.642 | 26.81 | 1831 |
| Godda | 12.323 | 23.882 | 1938 | 11.636 | 21.643 | 1860 | 11.955 | 20.921 | 1750 |
| Sahebganj | 11.173 | 12.715 | 1138 | 11.243 | 14.661 | 1304 | 10.215 | 14.505 | 1420 |
| Pakur | 10.5 | 15.929 | 1517 | 8.79 | 14.363 | 1634 | 10.278 | 20.556 | 2000 |
| Gumla | 5.465 | 8.116 | 1485 | 6.037 | 8.844 | 1465 | 7.371 | 15.627 | 2120 |
| Garhwa | 22.778 | 17.084 | 750 | 25.565 | 17.129 | 670 | 21.042 | 14.309 | 680 |
| Latehar | 21.103 | 33.237 | 1575 | 21.956 | 14.096 | 642 | 19.486 | 12.724 | 653 |
| Hazaribagh | 11.545 | 16.74 | 1450 | 10.98 | 12.627 | 1150 | 10.872 | 26.528 | 2440 |
| Ramgarh | 8.752 | 12.515 | 1430 | 8.952 | 10.832 | 1210 | 8.745 | 21.863 | 2500 |
| Chatra | 9.45 | 42.119 | 4457 | 13.892 | 15.42 | 1110 | 14.569 | 34.514 | 2369 |
| Bokaro | 7.587 | 7.966 | 1050 | 7.451 | 11.996 | 1610 | 8.808 | 14.181 | 1610 |
| Jamtara | 11.6 | 29 | 2500 | 9.8 | 7.84 | 800 | 11.542 | 28.855 | 2500 |
| State Total | 263.581 | 466.71 | 1968 | 283.888 | 375.744 | 1324 | 286.381 | 549.913 | 1920 |

Source: Directorate of Agriculture, Government of Jharkhand

Appendix 6.3: District wise Rabi Season final estimate of Area, production and yield from 2014 to 2016

Area- (ooo ha)/ Production – (ooo tones)/ Yield- (kg/ha)

| S. No. | Districts | Rabi 2014 | | | Rabi 2015 | | | Rabi 2016 | | |
|--------------------|----------------|--------------|--------------|-------------|--------------|--------------|-------------|--------------|---------------|-------------|
| | | Area | Production | Yield | Area | Production | Yield | Area | Production | Yield |
| 1 | Ranchi | 0 | 0 | 0 | 0 | 0 | 0 | 1.553 | 4.038 | 2600 |
| 2 | Khunti | 0.181 | 0.127 | 700 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Simdega | 0.822 | 2.548 | 3100 | 0.843 | 2.613 | 3100 | 0.571 | 1.77 | 3100 |
| 4 | Lohardagga | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | East Singhbhum | 0.842 | 1.404 | 1667 | 0.311 | 0.369 | 1185 | 1.095 | 1.205 | 1100 |
| 6 | West Singhbhum | 0.026 | 0.022 | 860 | 0.022 | 0.021 | 960 | 0.01 | 0.012 | 1150 |
| 7 | Saraikela | 0.1 | 0.16 | 1600 | 0.013 | 0.021 | 1600 | 0.444 | 0.799 | 1800 |
| 8 | Palamu | 0.284 | 0.341 | 1200 | 0.187 | 0.159 | 850 | 0.996 | 1.341 | 1346 |
| 9 | Koderma | 0 | 0 | 0 | 0.006 | 0.013 | 2167 | 0 | 0 | 0 |
| 10 | Giridih | 0 | 0 | 0 | 0 | 0 | 0 | 0.014 | 0.017 | 1245 |
| 11 | Dhanbad | 0 | 0 | 0 | 0.008 | 0.02 | 2500 | 0 | 0 | 0 |
| 12 | Dumka | 0.317 | 0.793 | 2500 | 0.357 | 1.071 | 3000 | 0.689 | 1.723 | 2500 |
| 13 | Deoghar | 0.21 | 0.42 | 2000 | 0.402 | 0.804 | 2000 | 0.58 | 1.16 | 2000 |
| 14 | Godda | 0.937 | 0.937 | 1000 | 0.85 | 1.403 | 1650 | 1.278 | 2.3 | 1800 |
| 15 | Sahebganj | 0.908 | 0.454 | 500 | 0.65 | 0.325 | 500 | 0.855 | 0.735 | 860 |
| 16 | Pakur | 0.481 | 0.878 | 1825 | 0.774 | 1.393 | 1800 | 0.516 | 1.161 | 2250 |
| 17 | Gumla | 0.802 | 1.283 | 1600 | 0 | 0 | 0 | 0.112 | 0.14 | 1250 |
| 18 | Garhwa | 0 | 0 | 0 | 0.1 | 0.083 | 830 | 0.115 | 0.098 | 850 |
| 19 | Latehar | 0.075 | 0.106 | 1417 | 0.18 | 0.244 | 1354 | 0.8 | 1.04 | 1300 |
| 20 | Hazaribagh | 0.025 | 0.038 | 1500 | 0.125 | 0 | 0 | 0 | 0 | 0 |
| 21 | Ramgarh | 0.033 | 0.05 | 1500 | 0.075 | 0.113 | 1500 | 0 | 0 | 0 |
| 22 | Chatra | 0.057 | 0.115 | 2010 | 0.023 | 0.024 | 1050 | 0.036 | 0.043 | 1200 |
| 23 | Bokaro | 0.125 | 0.2 | 1600 | 0.195 | 0.513 | 2630 | 0.309 | 0.334 | 1080 |
| 24 | Jamtara | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| State Total | | 6.225 | 9.874 | 1586 | 5.121 | 9.188 | 1794 | 9.973 | 17.915 | 1796 |

Source: Directorate of Agriculture, Government of Jharkhand

Appendix 6.4: District-wise Yield of Pulses, Foodgrains and Oilseeds 2016-17 Yield- (kg/ha)

| Districts | Kharif Yield | Rabi Yield | Pulses Yield | Foodgrains yield | Oilseeds yield |
|---------------------|--------------|-------------|--------------|------------------|----------------|
| Bokaro | 1610 | 1080 | 809 | 1951 | 748 |
| Chatra | 2369 | 1200 | 1495 | 3199 | 830 |
| Deoghar | 1831 | 2000 | 1085 | 2769 | 777 |
| Dhanbad | 2500 | 0 | 1189 | 2882 | 867 |
| Dumka | 2500 | 2500 | 1032 | 2886 | 645 |
| Garhwa | 680 | 850 | 802 | 2216 | 574 |
| Giridih | 2405 | 1245 | 1270 | 2742 | 863 |
| Godda | 1750 | 1800 | 899 | 2685 | 547 |
| Gumla | 2120 | 1250 | 1290 | 2552 | 916 |
| Hazaribagh | 2440 | 0 | 1017 | 2468 | 895 |
| Jamtara | 2500 | 0 | 777 | 2396 | 804 |
| Khunti | 2621 | 0 | 1137 | 2027 | 530 |
| Koderma | 1750 | 0 | 1072 | 2574 | 527 |
| Latehar | 653 | 1300 | 1073 | 2253 | 790 |
| Lohardagga | 3034 | 0 | 720 | 2283 | 1058 |
| Pakur | 2000 | 2250 | 795 | 2625 | 906 |
| Palamu | 1750 | 1346 | 1121 | 2501 | 600 |
| Pashchimi Singhbhum | 1013 | 1150 | 875 | 1984 | 554 |
| Purbi Singhbhum | 1560 | 1100 | 505 | 2553 | 387 |
| Ramgarh | 2500 | 0 | 1049 | 2474 | 896 |
| Ranchi | 2900 | 2600 | 900 | 3402 | 683 |
| Sahebganj | 1420 | 860 | 967 | 2583 | 468 |
| Saraikela | 2100 | 1800 | 1314 | 3104 | 1171 |
| Simdega | 2500 | 3100 | 1329 | 2755 | 703 |
| Jharkhand | 1920 | 1796 | 1049 | 2616 | 727 |

Source: Compiled from Directorate of Agriculture, Government of Jharkhand

Appendix 6.5: Fertilizer requirement and consumption in Jharkhand (2014-15 to 2016-17)

(Unit-tons)

| Year | Kharif | | | Rabi | | | |
|----------|---------|-------------|----------|-------------|-------------|----------|-------------|
| | Product | Requirement | Supply | Consumption | Requirement | Supply | Consumption |
| 2010-11 | UREA | 140000 | 85443 | 85419 | 70000 | 55315.35 | 50284.15 |
| | DAP | 70000 | 52002 | 44618 | 40000 | 13538.65 | 20242.7 |
| | MOP | 11000 | 52002 | 4117 | 5000 | 3427.25 | 1597.55 |
| | COMPLEX | 40000 | 22335 | 21871 | 45000 | 13505 | 13674.4 |
| 2011 -12 | UREA | 160000 | 124464 | 128088 | 100000 | 65206.4 | 64176.6 |
| | DAP | 80000 | 44559 | 40974 | 45000 | 16600 | 12295.76 |
| | MOP | 20000 | - | 1830 | 14000 | 0 | 0 |
| | COMPLEX | 38000 | 28144.5 | 25852.45 | 70000 | 16230 | 12084.64 |
| 2012-13 | UREA | 170000 | 125894 | 119145 | 100000 | 79426.9 | 72250.9 |
| | DAP | 80000 | 36280 | 24457 | 45000 | 27778.2 | 27673.25 |
| | MOP | 20000 | 2267 | 2267 | 15000 | 255 | 255 |
| | COMPLEX | 40000 | 20782 | 18432 | 65000 | 9586 | 9579.4 |
| | SSP | 40000 | 833 | 830 | 24000 | 3034.05 | 2999.1 |
| 2013-14 | UREA | 160000 | 119055.9 | 111316.6 | 100000 | 48489.95 | 51241.85 |
| | DAP | 50000 | 18769.55 | 12271.35 | 40000 | 10594.85 | 16501.4 |
| | MOP | 15000 | 3277.55 | 678 | 10000 | 2599.55 | 2599.55 |
| | COMPLEX | 35000 | 11400.45 | 9997.7 | 40000 | 4790.35 | 2952.5 |
| | SSP | 20000 | 1050.7 | 828.5 | 75000 | 1701.6 | 1701.5 |
| 2014-15 | UREA | 1600000 | 108030.1 | 108030.1 | 100000 | 72148.85 | 72148.25 |
| | DAP | 45000 | 21756.61 | 20374.16 | 30000 | 6743.85 | 6213.95 |
| | MOP | 10000 | 629.15 | 624.55 | 6000 | 4.6 | 4.6 |
| | COMPLEX | 35000 | 15245.15 | 14924.9 | 20000 | 11313.1 | 10192.9 |
| | SSP | 61760 | 2706.75 | 2443.75 | 50000 | 1141.9 | 1140.95 |
| 2015-16 | UREA | 125000 | 145592.4 | 145201.5 | 120000 | 21024.8 | 74810 |
| | DAP | 45000 | 54901.45 | 46702.18 | 60000 | 13541.24 | 8918 |
| | MOP | 10000 | 2944.55 | 2670.8 | 6000 | 273.75 | 311 |
| | COMPLEX | 35000 | 34731.35 | 26700.95 | 50000 | 8116.55 | 7503 |
| | SSP | 61760 | 2185 | 1972.5 | 30000 | 212.5 | 1546 |
| 2016-17 | UREA | 200000 | 162803.8 | 156807.1 | 100000 | 21682.05 | 6966.45 |
| | DAP | 70000 | 47698.15 | 34121.5 | 25000 | 18327.35 | 2425.75 |
| | MOP | 10000 | 3089.35 | 1265.2 | 3000 | 1265.2 | 400 |
| | COMPLEX | 50000 | 13429 | 8151.35 | 7500 | 5923.05 | 892.1 |
| | SSP | 25000 | 688 | 351.65 | 30000 | 456.35 | 336.35 |

Source: Compiled from Planning-cum-finance Department, Planning Division, Government of Jharkhand

Appendix 6.6: Area, Production of different varieties of Fruits and Vegetables in Jharkhand

| Crop | Final Estimates (2015-16) | | 1st Estimates (2016-17) | | 2nd Estimates (2016-17) | | 3rd Estimates (2016-17) | | Final Estimates (2016-17) | |
|--------------------------------------|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------------|-------------------------|
| | Area (000 Ha.) | Production (000 M Ton.) | Area (000 Ha.) | Production (000 M Ton.) | Area (000 Ha.) | Production (000 M Ton.) | Area (000 Ha.) | Production (000 M Ton.) | Area (000 Ha.) | Production (000 M Ton.) |
| Fruits | | | | | | | | | | |
| 1. Bael | 0.524 | 35.587 | 0.524 | 35.587 | 0.529 | 35.912 | 0.529 | 36.215 | 0.529 | 36.215 |
| 2. Aonla/Gooseberry | 0.28 | 1.305 | 0.28 | 1.305 | 0.287 | 1.405 | 0.287 | 1.414 | 0.287 | 1.414 |
| 3. Guava | 8.098 | 80.047 | 8.098 | 80.047 | 8.067 | 84.862 | 8.169 | 88.835 | 8.169 | 88.835 |
| 4. Banana | 12.527 | 33.279 | 12.527 | 33.279 | 9.019 | 31.473 | 9 | 31.628 | 9 | 31.628 |
| 5. Ber | 0.475 | 2.827 | 0.475 | 2.827 | 0.642 | 10.162 | 0.642 | 10.409 | 0.642 | 10.409 |
| 6. Jackfruit | 12.332 | 117.464 | 12.332 | 117.464 | 14.605 | 122.72 | 14.744 | 124.774 | 14.744 | 124.774 |
| 7. Lithi | 3.451 | 40.009 | 3.451 | 40.009 | 4.009 | 45.319 | 7.014 | 47.802 | 7.014 | 47.802 |
| 8. Mango | 50.412 | 393.668 | 50.412 | 393.668 | 52.24 | 430.221 | 50.557 | 438.541 | 50.557 | 438.541 |
| 9. Papaya | 1.784 | 106.691 | 1.784 | 106.691 | 1.476 | 108.856 | 2.53 | 109.882 | 2.53 | 109.882 |
| 10. Pomegranate | 0.01 | 0.038 | 0.01 | 0.038 | 0.011 | 0.039 | 0.006 | 0.009 | 0.006 | 0.009 |
| 11. Other Fruit | 1.8 | 102.535 | 1.8 | 102.535 | 1.701 | 102.333 | 1.701 | 104.497 | 1.701 | 104.497 |
| 12. Limes and Lemons | 4.843 | 47.737 | 4.843 | 47.737 | 5.422 | 53.004 | 5.553 | 53.962 | 5.553 | 53.962 |
| Sub Total | 96.536 | 961.187 | 96.536 | 961.187 | 98.008 | 1026.306 | 100.789 | 1047.968 | 100.789 | 1047.968 |
| Vegetables | | | | | | | | | | |
| 1. Beans(All Including Lab-lab(Sem)) | 10.376 | 154.554 | 10.376 | 154.554 | 12.496 | 177.42 | 12.624 | 226.715 | 12.624 | 226.715 |
| 2. Bitter Gourd | 1.422 | 12.312 | 1.422 | 12.312 | 1.47 | 12.356 | 1.6 | 13.199 | 1.6 | 13.199 |
| 3. Bottle Gourd | 1.63 | 13.961 | 1.63 | 13.961 | 1.15 | 12.448 | 1.552 | 13.337 | 1.552 | 13.337 |
| 4. Brinjal | 22.963 | 219.651 | 22.963 | 219.651 | 18.699 | 232.382 | 80.049 | 240.998 | 80.049 | 240.998 |
| 5. Cabbage | 30.5 | 475.992 | 30.5 | 475.992 | 18.68 | 309.513 | 19.32 | 322.464 | 19.32 | 322.464 |
| 6. Capsicum | 18.63 | 17.346 | 18.63 | 17.346 | 2.951 | 29.9 | 2.953 | 32.545 | 2.953 | 32.545 |
| 7. Carrot | 0.65 | 6.969 | 0.65 | 6.969 | 0.96 | 11.242 | 1.058 | 11.646 | 1.058 | 11.646 |
| 8. Cauliflower | 20.7 | 258.64 | 20.7 | 258.64 | 21.005 | 277.242 | 21.189 | 292.174 | 21.189 | 292.174 |
| 9. Green Chilly | 11.992 | 144.84 | 11.992 | 144.84 | 14.304 | 172.577 | 14.791 | 180.646 | 14.791 | 180.646 |
| 10. Cucumber | 0.37 | 25.699 | 0.37 | 25.699 | 1.31 | 17.375 | 1.676 | 18.554 | 1.676 | 18.554 |
| 11. Kaddu/Pumpkin | 0.272 | 3.6 | 0.272 | 3.6 | 0.68 | 16.728 | 0.77 | 18.563 | 0.77 | 18.563 |
| 12. Okra/Ladies Finger | 32.869 | 452.123 | 32.869 | 452.123 | 4.717 | 100.2 | 4.835 | 101.465 | 4.835 | 101.465 |
| 13. Onion | 14.86 | 254.626 | 14.86 | 254.626 | 17.123 | 279.101 | 17.483 | 292.588 | 17.483 | 292.588 |
| 14. Peas (Green) | 13.845 | 192.212 | 13.845 | 192.212 | 15.21 | 338.679 | 15.192 | 341.88 | 15.192 | 341.88 |
| 15. Potato | 44.931 | 627.009 | 44.931 | 627.009 | 55.732 | 651.845 | 52.728 | 668.658 | 52.728 | 668.658 |
| 16. Radish | 1.045 | 11.734 | 1.045 | 11.734 | 2.696 | 37.364 | 2.811 | 39.848 | 2.811 | 39.848 |
| 16. Tomato | 18.157 | 230.192 | 18.157 | 230.192 | 19.463 | 226.197 | 19.747 | 231.456 | 19.747 | 231.456 |
| 18. Other Vegetables | 19.003 | 272.361 | 19.003 | 272.361 | 22.55 | 314.938 | 23.154 | 323.264 | 23.154 | 323.264 |
| Sub Total | 264.215 | 3373.821 | 264.215 | 3373.821 | 231.196 | 3217.507 | 293.532 | 3370 | 293.532 | 3370 |
| Others | | | | | | | | | | |
| 1. Honey | | 1.2 | | | | | | 6 | | 6 |
| Sub Total | | 1.2 | | | | | | 6 | | 6 |
| Plantation Crops | | | | | | | | | | |
| 1. Cashew nut | 14.83 | 5 | | | | | 18.25 | 8 | 18.25 | 8 |
| Sub Total | 14.83 | 5 | | | | | 18.25 | 8 | 18.25 | 8 |

Source: Horticulture Area Production Info System (HAPIS), Ministry of Agriculture and Farmers Welfare, Government of India

Appendix 6.7: Area, Production of Flowers in Jharkhand

| Crop | Final Estimates (2015-16) | | | 1st Estimates (2016-17) | | | 2nd Estimates (2016-17) | | | 3rd Estimates (2016-17) | | | Final Estimates (2016-17) | | |
|--------------------|---------------------------|----------------------------|---------------------------|-------------------------|----------------------------|---------------------------|-------------------------|----------------------------|---------------------------|-------------------------|----------------------------|---------------------------|---------------------------|----------------------------|---------------------------|
| | Area(1000 Ha) | Loose Flower (1000 M. Ton) | Cut Flower (Lakh Numbers) | Area(1000 Ha) | Loose Flower (1000 M. Ton) | Cut Flower (Lakh Numbers) | Area(1000 Ha) | Loose Flower (1000 M. Ton) | Cut Flower (Lakh Numbers) | Area(1000 Ha) | Loose Flower (1000 M. Ton) | Cut Flower (Lakh Numbers) | Area(1000 Ha) | Loose Flower (1000 M. Ton) | Cut Flower (Lakh Numbers) |
| Flowers | | | | | | | | | | | | | | | |
| 1. Other Flowers | 0.315 | 1.528 | 2678 | 0.315 | 1.528 | 2678 | | | | 1.05 | 13.332 | 406 | 1.05 | 13.332 | 406 |
| Sub Total | 0.315 | 1.528 | 2678 | 0.315 | 1.528 | 2678 | | | | 1.05 | 13.332 | 406 | 1.05 | 13.332 | 406 |
| Grand Total | 375.896 | | 4375.613 | 361.069 | | 4351.015 | 329.204 | | 4243.813 | 413.621 | | 4447.558 | 413.621 | | 4447.556 |

Source: Horticulture Area Production Info System (HAPIS), Ministry of Agriculture and Farmers Welfare, Government of India

Appendix 7.1: District-wise DBT Report

| Districts | PH Head | AAY Head | Districts | PH Head | AAY Head |
|-----------------|---------|----------|---------------------|---------|----------|
| Bokaro | 271258 | 21753 | Kodarma | 83804 | 16795 |
| Chatra | 130513 | 38359 | Latehar | 118106 | 14371 |
| Deoghar | 203581 | 15425 | Lohardaga | 71440 | 14007 |
| Dhanbad | 381110 | 33271 | Pakur | 143973 | 19431 |
| Dumka | 194819 | 48760 | Palamu | 339536 | 46146 |
| Purbi Singhbhum | 347231 | 58478 | Ranchi | 310081 | 99046 |
| Garhwa | 219570 | 31102 | Sahibganj | 152562 | 40005 |
| Giridih | 332303 | 68115 | Saraikela-Kharsawan | 181169 | 34480 |
| Godda | 204980 | 28437 | Simdega | 100576 | 17169 |
| Gumla | 131492 | 32900 | Pashchimi Singhbhum | 243816 | 94665 |
| Hazaribagh | 257554 | 55366 | Khunti | 68646 | 32822 |
| Jamtara | 127949 | 17771 | Ramgarh | 105564 | 20953 |

Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Appendix 7.2: District-wise Foodgrains Distributors in Jharkhand

| Districts | Number of Distributors | Districts | Number of Distributors |
|-----------------|------------------------|---------------------|------------------------|
| Bokaro | 1615 | Latehar | 600 |
| Chatra | 866 | Lohardaga | 395 |
| Deoghar | 1070 | Pakur | 710 |
| Dhanbad | 1576 | Palamu | 1612 |
| Dumka | 975 | Ranchi | 2028 |
| Purbi Singhbhum | 1427 | Sahibganj | 938 |
| Garhwa | 933 | Saraikela-Kharsawan | 756 |
| Giridih | 1869 | Simdega | 491 |
| Godda | 1028 | Pashchimi Singhbhum | 1234 |
| Gumla | 818 | Khunti | 434 |
| Hazaribagh | 1262 | Ramgarh | 633 |
| Jamtara | 652 | Total | 24523 |
| Kodarma | 601 | | |

Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Appendix 7.3: Total Godowns created and their storage capacity between 2009-10 and 2016-17

| Districts | Total Created Warehouses Godown | Storage Capacity of Existing Ware-houses | Total Pending Godowns/ware-houses | Districts | Total Created Warehouses Godown | Storage Capacity of Existing Ware-houses | Total Pending Godowns/ware-houses |
|-----------------|---------------------------------|--|-----------------------------------|---------------------|---------------------------------|--|-----------------------------------|
| Godda | 13 | 5000 | 6 | Jamtara | 11 | 4750 | 4 |
| Hazaribagh | 14 | 4500 | 8 | Pakur | 11 | 4500 | 1 |
| Latehar | 8 | 2000 | 4 | Koderma | 7 | 2500 | 5 |
| Lohardaga | 7 | 3250 | 3 | Chatra | 12 | 3750 | 4 |
| Simdega | 10 | 3250 | 4 | Garhwa | 25 | 10250 | 3 |
| Khunti | 12 | 6500 | 1 | Gumla | 12 | 3750 | 4 |
| Dhanbad | 19 | 11000 | 9 | Palamu | 24 | 9500 | 7 |
| Dumka | 15 | 5750 | 6 | Ramgarh | 7 | 2500 | 2 |
| Giridih | 19 | 6500 | 12 | Ranchi | 17 | 4250 | 19 |
| Bokaro | 13 | 5750 | 5 | Sahibganj | 10 | 3250 | 6 |
| Deoghar | 12 | 4500 | 7 | Saraikela-Kharsawan | 12 | 5250 | 8 |
| Purbi Singhbhum | 9 | 3750 | 17 | Paschimi Singhbhum | 20 | 8500 | 11 |

Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Appendix 7.4: Ration card Digitization Status as on 18.12.2017

| Districts | Number of UID Verified card-holders | Percentage of UID Verified | Districts | Number of UID Verified card-holders | Percentage of UID Verified |
|-----------------|-------------------------------------|----------------------------|---------------------|-------------------------------------|----------------------------|
| Bokaro | 269690 | 92.06 | Kodarma | 95263 | 94.69 |
| Chatra | 166079 | 98.35 | Latehar | 126685 | 95.71 |
| Deoghar | 207121 | 94.57 | Lohardaga | 82993 | 97.15 |
| Dhanbad | 320556 | 77.36 | Pakur | 158972 | 97.29 |
| Dumka | 235013 | 96.48 | Palamu | 345596 | 89.61 |
| Purbi Singhbhum | 386401 | 95.24 | Ranchi | 391380 | 95.67 |
| Garhwa | 23178 | 92.26 | Sahibganj | 184903 | 96.02 |
| Giridih | 355936 | 89.05 | Saraikela-Kharsawan | 196849 | 91.29 |
| Godda | 204971 | 87.8 | Simdega | 114230 | 97.02 |
| Gumla | 149784 | 91.11 | Pashchimi Singhbhum | 296615 | 87.63 |
| Hazaribagh | 299231 | 95.63 | Khunti | 97333 | 95.93 |
| Jamtara | 143958 | 98.79 | Ramgarh | 115653 | 91.41 |

Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Appendix 7.5: District-wise PDS/Fair Price Shops in Jharkhand

| District | Total Number of PDS Shops | District | Total Number of PDS Shops |
|---------------------|---------------------------|--------------|---------------------------|
| Ranchi | 1845 | Dumka | 989 |
| Gumla | 797 | Pakur | 674 |
| Lohardaga | 357 | Sahibganj | 879 |
| Simdega | 484 | Deoghar | 1064 |
| Purbi Singhbhum | 1167 | Godda | 1001 |
| Pashchimi Singhbhum | 1163 | Jamtara | 606 |
| Saraikela | 729 | Palamu | 1522 |
| Hazaribagh | 1236 | Garhwa | 892 |
| Kodarma | 539 | Latehar | 589 |
| Bokaro | 1561 | Khunti | 421 |
| Giridih | 1701 | Ramgarh | 614 |
| Dhanbad | 1465 | Total | 23082 |
| Chatra | 787 | | |

Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Appendix 7.6: District-wise Paddy Procurement Centres in Jharkhand

| District | Number of Centres | District | Number of Centres |
|---------------------|-------------------|------------|-------------------|
| Ranchi | 33 | Chatra | 25 |
| Khunti | 16 | Hazaribagh | 35 |
| Lohardaga | 10 | Ramgarh | 6 |
| Gumla | 25 | Bokaro | 10 |
| Simdega | 14 | Dhanbad | 8 |
| Purbi Singhbhum | 25 | Giridih | 21 |
| Paschimi Singhbhum | 24 | Jamtara | 6 |
| Saraikela-Kharsawan | 16 | Dumka | 20 |
| Latehar | 8 | Pakur | 6 |
| Palamu | 15 | Sahibganj | 8 |
| Garhwa | 11 | Godda | 14 |
| Kodarma | 8 | Deoghar | 51 |

Source: Food, Public Distribution and Consumer Affairs Department, Government of Jharkhand

Appendix 9.1: Comparison between Energy Requirement and Peak Demand for JBNVL

| Jharkhand | | | | | | | India |
|---|---------|---------|---------|---------|---------|---------|----------|
| Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2016-17 | 2016-17 |
| Peak Power Demand and Supply | | | | | | | |
| Peak Demand (Mw) | 1790 | 1850 | 1900 | 2060 | 2120 | 1498.37 | 159541.9 |
| Peak Availability (Mw) | 1523 | 1547 | 1638 | 1726 | 1810 | 1498.37 | 156934 |
| Peak Shortage (%) | 14.9 | 16.4 | 13.8 | 16.2 | 14.6 | 0 | 1.6 |
| Energy Requirements and Availability | | | | | | | |
| Energy Requirement (Mu) | 10976 | 11020 | 11900 | 12361 | 12720 | 7959.63 | 1142929 |
| Energy Availability (Mu) | 10103 | 9988 | 10912 | 11631 | 11954 | 7906.27 | 1135334 |
| Energy Shortage (%) | 8 | 9.4 | 8.3 | 5.9 | 6 | 0.7 | 0.7 |

Source: Ministry of Power, Central Electricity Authority, New Delhi

Appendix 9.2: Rural and Urban Common Service Centre (CSC) Rollouts Status in Jharkhand as on 31.10.2017

| Division | Rural CSC | Urban CSC | Rural CSC + Urban CSC |
|------------|-----------|-----------|-----------------------|
| Ranchi | 1419 | 630 | 2049 |
| Hazaribagh | 4820 | 1247 | 6067 |
| Kolhan | 1292 | 366 | 1658 |
| Palamu | 1624 | 265 | 1889 |
| Dumka | 2302 | 458 | 2760 |
| Total | 11457 | 2966 | 14423 |

Source: Information Technology Department, Government of Jharkhand

Appendix 9.3: Number of blocks within the Districts connected under JHARNET in Jharkhand

| Districts | Blocks | Districts | Blocks |
|--------------------|--------|---------------------|--------|
| Palamu | 20 | Latehar | 9 |
| Garhwa | 19 | Saraikala Kharsawan | 9 |
| Ranchi | 18 | Sahibganj | 9 |
| Paschimi Singhbhum | 17 | Godda | 9 |
| Hazaribagh | 16 | Dhanbad | 9 |
| Girdih | 13 | Bokaro | 9 |
| Gumla | 12 | Lohardaga | 7 |
| Chatra | 12 | Jamtara | 6 |
| Purbi Singhbhum | 11 | Pakur | 6 |
| Simdega | 10 | Koderma | 6 |
| Dumka | 10 | Khunti | 6 |
| Deoghar | 10 | Ramgarh | 6 |

Source: Information Technology Department, Government of Jharkhand

Appendix 10.1: District wise Main Workers, 2011

| Districts | Rural | | | Urban | | | Total | | |
|----------------------|------------------|------------------|------------------|------------------|----------------|------------------|------------------|------------------|------------------|
| | Male | Female | Persons | Male | Female | Persons | Male | Female | Persons |
| Garhwa | 123,629 | 38,685 | 162,314 | 11,644 | 1,168 | 12,812 | 135,273 | 39,853 | 175,126 |
| Chatra | 132,848 | 48,216 | 181,064 | 12,705 | 1,733 | 14,438 | 145,553 | 49,949 | 195,502 |
| Kodarma | 89,403 | 23,133 | 112,536 | 28,478 | 2,310 | 30,788 | 117,881 | 25,443 | 143,324 |
| Giridih | 284,213 | 80,818 | 365,031 | 43,438 | 4,443 | 47,881 | 327,651 | 85,261 | 412,912 |
| Deoghar | 180,361 | 51,501 | 231,862 | 57,863 | 7,421 | 65,284 | 238,224 | 58,922 | 297,146 |
| Godda | 169,410 | 51,462 | 220,872 | 13,028 | 1,835 | 14,863 | 182,438 | 53,297 | 235,735 |
| Sahibganj | 193,340 | 89,376 | 282,716 | 33,389 | 6,467 | 39,856 | 226,729 | 95,843 | 322,572 |
| Pakur | 153,155 | 77,316 | 230,471 | 14,717 | 6,829 | 21,546 | 167,872 | 84,145 | 252,017 |
| Dhanbad | 164,346 | 30,855 | 195,201 | 312,502 | 39,011 | 351,513 | 476,848 | 69,866 | 546,714 |
| Bokaro | 138,551 | 27,562 | 166,113 | 189,289 | 24,902 | 214,191 | 327,840 | 52,464 | 380,304 |
| Lohardaga | 59,760 | 29,670 | 89,430 | 11,240 | 2,331 | 13,571 | 71,000 | 32,001 | 103,001 |
| Purbi Singhbhum | 135,569 | 36,931 | 172,500 | 309,835 | 47,243 | 357,078 | 445,404 | 84,174 | 529,578 |
| Palamu | 187,315 | 52,805 | 240,120 | 38,029 | 5,553 | 43,582 | 225,344 | 58,358 | 283,702 |
| Latehar | 73,668 | 32,713 | 106,381 | 9,216 | 1,714 | 10,930 | 82,884 | 34,427 | 117,311 |
| Hazaribagh | 205,284 | 57,992 | 263,276 | 56,715 | 7,325 | 64,040 | 261,999 | 65,317 | 327,316 |
| Ramgarh | 96,026 | 27,415 | 123,441 | 87,111 | 10,560 | 97,671 | 183,137 | 37,975 | 221,112 |
| Dumka | 153,485 | 62,720 | 216,205 | 18,332 | 2,942 | 21,274 | 171,817 | 65,662 | 237,479 |
| Jamtara | 80,870 | 24,193 | 105,063 | 15,247 | 2,124 | 17,371 | 96,117 | 26,317 | 122,434 |
| Ranchi | 284,829 | 142,396 | 427,225 | 269,120 | 59,831 | 328,951 | 553,949 | 202,227 | 756,176 |
| Khunti | 85,633 | 56,953 | 142,586 | 8,179 | 2,322 | 10,501 | 93,812 | 59,275 | 153,087 |
| Gumla | 164,065 | 100,203 | 264,268 | 12,002 | 2,661 | 14,663 | 176,067 | 102,864 | 278,931 |
| Simdega | 97,332 | 47,697 | 145,029 | 8,371 | 2,110 | 10,481 | 105,703 | 49,807 | 155,510 |
| Pashchimi Singhbhum | 191,394 | 94,017 | 285,411 | 48,450 | 9,147 | 57,597 | 239,844 | 103,164 | 343,008 |
| Saraikela- Kharsawan | 118,936 | 38,789 | 157,725 | 62,120 | 8,753 | 70,873 | 181,056 | 47,542 | 228,598 |
| Jharkhand | 3,563,422 | 1,323,418 | 4,886,840 | 1,671,020 | 260,735 | 1,931,755 | 5,234,442 | 1,584,153 | 6,818,595 |

Source: Census of India, 2011

Appendix 10.2: District wise Total (Main+ Marginal) Workers, 2011

| Districts | Rural | | | Urban | | | Total | | |
|----------------------|------------------|------------------|-------------------|------------------|----------------|------------------|------------------|------------------|-------------------|
| | Male | Female | Persons | Male | Female | Persons | Male | Female | Persons |
| Garhwa | 318,606 | 231,873 | 550,479 | 16,845 | 4,107 | 20,952 | 335,451 | 235,980 | 571,431 |
| Chatra | 236,023 | 144,013 | 380,036 | 15,190 | 2,464 | 17,654 | 251,213 | 146,477 | 397,690 |
| Kodarma | 139,982 | 78,344 | 218,326 | 34,011 | 5,081 | 39,092 | 173,993 | 83,425 | 257,418 |
| Giridih | 572,635 | 403,901 | 976,536 | 51,311 | 8,430 | 59,741 | 623,946 | 412,331 | 1,036,277 |
| Deoghar | 320,165 | 157,957 | 478,122 | 63,526 | 9,819 | 73,345 | 383,691 | 167,776 | 551,467 |
| Godda | 329,001 | 205,449 | 534,450 | 15,018 | 2,723 | 17,741 | 344,019 | 208,172 | 552,191 |
| Sahibganj | 256,800 | 184,466 | 441,266 | 38,890 | 10,046 | 48,936 | 295,690 | 194,512 | 490,202 |
| Pakur | 217,980 | 162,758 | 380,738 | 16,032 | 7,814 | 23,846 | 234,012 | 170,572 | 404,584 |
| Dhanbad | 285,329 | 125,886 | 411,215 | 373,522 | 59,767 | 433,289 | 658,851 | 185,653 | 844,504 |
| Bokaro | 276,739 | 136,074 | 412,813 | 230,938 | 41,617 | 272,555 | 507,677 | 177,691 | 685,368 |
| Lohardaga | 108,219 | 96,078 | 204,297 | 13,386 | 3,649 | 17,035 | 121,605 | 99,727 | 221,332 |
| Purbi Singhbhum | 282,989 | 163,874 | 446,863 | 333,260 | 57,044 | 390,304 | 616,249 | 220,918 | 837,167 |
| Palamu | 420,227 | 228,504 | 648,731 | 52,815 | 11,629 | 64,444 | 473,042 | 240,133 | 713,175 |
| Latehar | 167,670 | 130,044 | 297,714 | 12,436 | 3,229 | 15,665 | 180,106 | 133,273 | 313,379 |
| Hazaribagh | 358,174 | 220,446 | 578,620 | 65,298 | 10,718 | 76,016 | 423,472 | 231,164 | 654,636 |
| Ramgarh | 133,450 | 62,767 | 196,217 | 100,752 | 15,156 | 115,908 | 234,202 | 77,923 | 312,125 |
| Dumka | 344,707 | 252,665 | 597,372 | 22,401 | 5,006 | 27,407 | 367,108 | 257,671 | 624,779 |
| Jamtara | 195,029 | 108,378 | 303,407 | 19,711 | 3,513 | 23,224 | 214,740 | 111,891 | 326,631 |
| Ranchi | 435,412 | 315,794 | 751,206 | 308,555 | 83,106 | 391,661 | 743,967 | 398,900 | 1,142,867 |
| Khunti | 130,931 | 115,050 | 245,981 | 10,192 | 3,811 | 14,003 | 141,123 | 118,861 | 259,984 |
| Gumla | 250,720 | 218,948 | 469,668 | 14,054 | 3,786 | 17,840 | 264,774 | 222,734 | 487,508 |
| Simdega | 149,948 | 125,306 | 275,254 | 9,919 | 3,472 | 13,391 | 159,867 | 128,778 | 288,645 |
| Pashchimi Singhbhum | 337,542 | 288,911 | 626,453 | 55,148 | 13,262 | 68,410 | 392,690 | 302,173 | 694,863 |
| Saraikela- Kharsawan | 215,864 | 135,524 | 351,388 | 67,417 | 11,246 | 78,663 | 283,281 | 146,770 | 430,051 |
| Jharkhand | 6,484,142 | 4,293,010 | 10,777,152 | 1,940,627 | 380,495 | 2,321,122 | 8,424,769 | 4,673,505 | 13,098,274 |

Source: Census of India, 2011

Appendix 10.3: District wise Occupational Distribution (Main+ Marginal Workers), 2011

| Districts | Total | | | | Total |
|---------------------|------------------|------------------|----------------|------------------|-------------------|
| | CL | AL | HHW | OTH | |
| Garhwa | 113,561 | 328,673 | 14,487 | 114,710 | 571,431 |
| Chatra | 119,297 | 188,513 | 14,210 | 75,670 | 397,690 |
| Kodarma | 83,126 | 64,275 | 7,934 | 102,083 | 257,418 |
| Giridih | 369,913 | 362,610 | 32,544 | 271,210 | 1,036,277 |
| Deochar | 128,656 | 209,693 | 39,361 | 173,757 | 551,467 |
| Godda | 144,603 | 307,767 | 18,719 | 81,102 | 552,191 |
| Sahibganj | 109,975 | 206,902 | 43,179 | 130,146 | 490,202 |
| Pakur | 105,334 | 150,028 | 19,471 | 129,751 | 404,584 |
| Dhanbad | 97,118 | 103,488 | 25,889 | 618,009 | 844,504 |
| Bokaro | 137,521 | 126,406 | 21,671 | 399,770 | 685,368 |
| Lohardaga | 99,780 | 80,840 | 4,449 | 36,263 | 221,332 |
| Purbi Singhbhum | 112,059 | 209,802 | 21,438 | 493,868 | 837,167 |
| Palamu | 133,585 | 380,976 | 19,911 | 178,703 | 713,175 |
| Latehar | 103,693 | 142,729 | 9,205 | 57,752 | 313,379 |
| Hazaribagh | 242,460 | 172,385 | 16,150 | 223,641 | 654,636 |
| Ramgarh | 90,770 | 46,815 | 8,336 | 166,204 | 312,125 |
| Dumka | 193,402 | 303,084 | 23,106 | 105,187 | 624,779 |
| Jamtara | 106,008 | 135,667 | 11,547 | 73,409 | 326,631 |
| Ranchi | 317,487 | 267,360 | 38,452 | 519,568 | 1,142,867 |
| Khunti | 166,290 | 49,448 | 9,245 | 35,001 | 259,984 |
| Gumla | 321,272 | 97,918 | 12,771 | 55,547 | 487,508 |
| Simdega | 158,019 | 90,232 | 8,011 | 32,383 | 288,645 |
| Pashchimi Singhbhum | 244,172 | 267,475 | 24,825 | 158,391 | 694,863 |
| Saraikela-Kharsawan | 116,731 | 142,966 | 10,251 | 160,103 | 430,051 |
| Jharkhand | 3,814,832 | 4,436,052 | 455,162 | 4,392,228 | 13,098,274 |

Source: Census of India, 2011

Note: CL: Cultivators; AL: Agriculture Labour; HHW: Household Worker; OTH: Other Workers

Appendix 10.4: District wise Occupational Distribution (Main+ Marginal Workers), 2011

| Districts | Rural | | | | | | Urban | | | | | |
|---------------------|------------------|------------------|----------------|------------------|-------------------|--|---------------|---------------|---------------|------------------|------------------|--|
| | CL | AL | HHW | OTH | Total | | CL | AL | HHW | OTH | Total | |
| Garhwa | 112,409 | 323,139 | 13,833 | 101,098 | 550,479 | | 1,152 | 5,534 | 654 | 13,612 | 20,952 | |
| Chatra | 118,617 | 187,692 | 13,217 | 60,510 | 380,036 | | 680 | 821 | 993 | 15,160 | 17,654 | |
| Kodarma | 81,418 | 61,944 | 6,271 | 68,693 | 218,326 | | 1,708 | 2,331 | 1,663 | 33,390 | 39,092 | |
| Giridih | 367,029 | 359,267 | 29,990 | 220,250 | 976,536 | | 2,884 | 3,343 | 2,554 | 50,960 | 59,741 | |
| Deoghar | 126,505 | 206,398 | 35,658 | 109,561 | 478,122 | | 2,151 | 3,295 | 3,703 | 64,196 | 73,345 | |
| Godda | 143,085 | 305,878 | 18,008 | 67,479 | 534,450 | | 1,518 | 1,889 | 711 | 13,623 | 17,741 | |
| Sahibganj | 107,463 | 201,067 | 39,565 | 93,171 | 441,266 | | 2,512 | 5,835 | 3,614 | 36,975 | 48,936 | |
| Pakur | 104,921 | 148,948 | 17,211 | 109,658 | 380,738 | | 413 | 1,080 | 2,260 | 20,093 | 23,846 | |
| Dhanbad | 89,935 | 93,759 | 13,556 | 213,965 | 411,215 | | 7,183 | 9,729 | 12,333 | 404,044 | 433,289 | |
| Bokaro | 127,794 | 117,675 | 13,598 | 153,746 | 412,813 | | 9,727 | 8,731 | 8,073 | 246,024 | 272,555 | |
| Lohardaga | 98,886 | 79,803 | 3,862 | 21,746 | 204,297 | | 894 | 1,037 | 587 | 14,517 | 17,035 | |
| Purbi Singhbhum | 110,051 | 203,367 | 13,278 | 120,167 | 446,863 | | 2,008 | 6,435 | 8,160 | 373,701 | 390,304 | |
| Palamu | 131,530 | 371,453 | 17,270 | 128,478 | 648,731 | | 2,055 | 9,523 | 2,641 | 50,225 | 64,444 | |
| Latehar | 102,920 | 140,645 | 8,600 | 45,549 | 297,714 | | 773 | 2,084 | 605 | 12,203 | 15,665 | |
| Hazaribagh | 239,856 | 169,987 | 14,177 | 154,600 | 578,620 | | 2,604 | 2,398 | 1,973 | 69,041 | 76,016 | |
| Ramgarh | 85,136 | 42,444 | 5,555 | 63,082 | 196,217 | | 5,634 | 4,371 | 2,781 | 103,122 | 115,908 | |
| Dumka | 192,177 | 300,759 | 21,770 | 82,666 | 597,372 | | 1,225 | 2,325 | 1,336 | 22,521 | 27,407 | |
| Jamtara | 105,242 | 134,317 | 10,864 | 52,984 | 303,407 | | 766 | 1,350 | 683 | 20,425 | 23,224 | |
| Ranchi | 308,512 | 251,882 | 24,155 | 166,657 | 751,206 | | 8,975 | 15,478 | 14,297 | 352,911 | 391,661 | |
| Khunti | 164,261 | 48,694 | 8,570 | 24,456 | 245,981 | | 2,029 | 754 | 675 | 10,545 | 14,003 | |
| Gumla | 320,041 | 96,856 | 11,501 | 41,270 | 469,668 | | 1,231 | 1,062 | 1,270 | 14,277 | 17,840 | |
| Simdega | 156,159 | 88,144 | 7,667 | 23,284 | 275,254 | | 1,860 | 2,088 | 344 | 9,099 | 13,391 | |
| Pashchimi Singhbhum | 242,874 | 263,978 | 22,578 | 97,023 | 626,453 | | 1,298 | 3,497 | 2,247 | 61,368 | 68,410 | |
| Saraikela-Kharsawan | 115,793 | 141,206 | 8,600 | 85,789 | 351,388 | | 938 | 1,760 | 1,651 | 74,314 | 78,663 | |
| Jharkhand | 3,752,614 | 4,339,302 | 379,354 | 2,305,882 | 10,777,152 | | 62,218 | 96,750 | 75,808 | 2,086,346 | 2,321,122 | |

Source: Census of India, 2011

Appendix 10.5: District Wise Occupation Distribution (Rural) of Workers, 2011

| Districts | CL | AL | HHW | OTH | Total |
|---------------------|-------------|-------------|------------|-------------|------------|
| Garhwa | 20.4 | 58.7 | 2.5 | 18.4 | 100 |
| Chatra | 31.2 | 49.4 | 3.5 | 15.9 | 100 |
| Kodarma | 37.3 | 28.4 | 2.9 | 31.5 | 100 |
| Giridih | 37.6 | 36.8 | 3.1 | 22.6 | 100 |
| Deoghar | 26.5 | 43.2 | 7.5 | 22.9 | 100 |
| Godda | 26.8 | 57.2 | 3.4 | 12.6 | 100 |
| Sahibganj | 24.4 | 45.6 | 9 | 21.1 | 100 |
| Pakur | 27.6 | 39.1 | 4.5 | 28.8 | 100 |
| Dhanbad | 21.9 | 22.8 | 3.3 | 52 | 100 |
| Bokaro | 31 | 28.5 | 3.3 | 37.2 | 100 |
| Lohardaga | 48.4 | 39.1 | 1.9 | 10.6 | 100 |
| Purbi Singhbhum | 24.6 | 45.5 | 3 | 26.9 | 100 |
| Palamu | 20.3 | 57.3 | 2.7 | 19.8 | 100 |
| Latehar | 34.6 | 47.2 | 2.9 | 15.3 | 100 |
| Hazaribagh | 41.5 | 29.4 | 2.5 | 26.7 | 100 |
| Ramgarh | 43.4 | 21.6 | 2.8 | 32.1 | 100 |
| Dumka | 32.2 | 50.3 | 3.6 | 13.8 | 100 |
| Jamtara | 34.7 | 44.3 | 3.6 | 17.5 | 100 |
| Ranchi | 41.1 | 33.5 | 3.2 | 22.2 | 100 |
| Khunti | 66.8 | 19.8 | 3.5 | 9.9 | 100 |
| Gumla | 68.1 | 20.6 | 2.4 | 8.8 | 100 |
| Simdega | 56.7 | 32 | 2.8 | 8.5 | 100 |
| Pashchim Singhbhum | 38.8 | 42.1 | 3.6 | 15.5 | 100 |
| Saraikela-Kharsawan | 33 | 40.2 | 2.4 | 24.4 | 100 |
| Jharkhand | 34.8 | 40.3 | 3.5 | 21.4 | 100 |

Source: Census of India, 2011

Appendix 10.6: District Wise Occupation Distribution (urban) of Workers, 2011

| Districts | CL | AL | HHW | OTH | Total |
|---------------------|------------|------------|------------|-------------|--------------|
| Garhwa | 5.5 | 26.4 | 3.1 | 65.0 | 100.0 |
| Chatra | 3.9 | 4.7 | 5.6 | 85.9 | 100.0 |
| Kodarma | 4.4 | 6.0 | 4.3 | 85.4 | 100.0 |
| Giridih | 4.8 | 5.6 | 4.3 | 85.3 | 100.0 |
| Deoghar | 2.9 | 4.5 | 5.0 | 87.5 | 100.0 |
| Godda | 8.6 | 10.6 | 4.0 | 76.8 | 100.0 |
| Sahibganj | 5.1 | 11.9 | 7.4 | 75.6 | 100.0 |
| Pakur | 1.7 | 4.5 | 9.5 | 84.3 | 100.0 |
| Dhanbad | 1.7 | 2.2 | 2.8 | 93.3 | 100.0 |
| Bokaro | 3.6 | 3.2 | 3.0 | 90.3 | 100.0 |
| Lohardaga | 5.2 | 6.1 | 3.4 | 85.2 | 100.0 |
| Purbi Singhbhum | 0.5 | 1.6 | 2.1 | 95.7 | 100.0 |
| Palamu | 3.2 | 14.8 | 4.1 | 77.9 | 100.0 |
| Latehar | 4.9 | 13.3 | 3.9 | 77.9 | 100.0 |
| Hazaribagh | 3.4 | 3.2 | 2.6 | 90.8 | 100.0 |
| Ramgarh | 4.9 | 3.8 | 2.4 | 89.0 | 100.0 |
| Dumka | 4.5 | 8.5 | 4.9 | 82.2 | 100.0 |
| Jamtara | 3.3 | 5.8 | 2.9 | 87.9 | 100.0 |
| Ranchi | 2.3 | 4.0 | 3.7 | 90.1 | 100.0 |
| Khunti | 14.5 | 5.4 | 4.8 | 75.3 | 100.0 |
| Gumla | 6.9 | 6.0 | 7.1 | 80.0 | 100.0 |
| Simdega | 13.9 | 15.6 | 2.6 | 67.9 | 100.0 |
| Pashchim Singhbhum | 1.9 | 5.1 | 3.3 | 89.7 | 100.0 |
| Saraikela-Kharsawan | 1.2 | 2.2 | 2.1 | 94.5 | 100.0 |
| Jharkhand | 2.7 | 4.2 | 3.3 | 89.9 | 100.0 |

Source: Census of India, 2011

Note: CL: Cultivators; AL: Agriculture Labour; HHW: Household Worker; OTH: Other Workers

Appendix 10.7: Number of selection in recruitment camps (2015-16)

| Places | Number of selection in recruitment camps in different districts 2015-16 |
|------------|---|
| Bokaro | 340 |
| Chaibasa | 241 |
| Daltonganj | 281 |
| Dhanbad | 340 |
| Hazaribagh | 367 |
| Jamshedpur | 815 |
| Ranchi | 398 |

Source: Directorate of Employment and Training, Government of Jharkhand

Appendix 11.1: Literacy Rate by Rural and Urban, District wise, 2011

| Districts | Rural | | | Urban | | | Total | | |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | Male | Female | Person | Male | Female | Person | Male | Female | Person |
| Garhwa | 71.4 | 46.4 | 59.3 | 85.5 | 68.9 | 77.7 | 72.2 | 47.6 | 60.3 |
| Chatra | 68.7 | 48.4 | 58.8 | 86.9 | 74.0 | 80.9 | 69.9 | 49.9 | 60.2 |
| Kodarma | 77.8 | 49.0 | 63.7 | 87.5 | 70.0 | 79.1 | 79.8 | 53.2 | 66.8 |
| Giridih | 75.9 | 46.4 | 61.6 | 85.7 | 72.7 | 79.5 | 76.8 | 48.7 | 63.1 |
| Deoghar | 73.8 | 46.1 | 60.5 | 90.2 | 77.7 | 84.4 | 76.9 | 51.8 | 64.9 |
| Godda | 66.7 | 42.5 | 55.0 | 87.7 | 75.9 | 82.2 | 67.8 | 44.1 | 56.4 |
| Sahibganj | 57.0 | 39.5 | 48.5 | 79.5 | 66.2 | 73.2 | 60.3 | 43.3 | 52.0 |
| Pakur | 55.8 | 38.8 | 47.3 | 71.3 | 61.5 | 66.5 | 57.1 | 40.5 | 48.8 |
| Dhanbad | 80.5 | 54.9 | 68.2 | 86.1 | 71.0 | 79.0 | 83.8 | 64.3 | 74.5 |
| Bokaro | 76.4 | 49.8 | 63.5 | 88.8 | 72.3 | 81.0 | 82.5 | 60.6 | 72.0 |
| Lohardaga | 75.5 | 54.3 | 65.0 | 89.8 | 80.7 | 85.4 | 77.4 | 57.7 | 67.6 |
| Purbi Singhbhum | 74.7 | 50.8 | 62.9 | 90.6 | 79.6 | 85.3 | 83.8 | 66.8 | 75.5 |
| Palamu | 72.5 | 49.2 | 61.3 | 87.1 | 73.3 | 80.5 | 74.3 | 52.1 | 63.6 |
| Latehar | 68.7 | 46.9 | 58.0 | 84.8 | 71.3 | 78.3 | 70.0 | 48.7 | 59.5 |
| Hazaribagh | 77.9 | 54.9 | 66.6 | 90.6 | 79.9 | 85.5 | 80.0 | 59.0 | 69.8 |
| Ramgarh | 77.8 | 55.2 | 66.8 | 87.9 | 73.2 | 81.0 | 82.4 | 63.1 | 73.2 |
| Dumka | 71.7 | 46.7 | 59.3 | 89.2 | 77.6 | 83.7 | 73.0 | 48.8 | 61.0 |
| Jamtara | 75.0 | 49.7 | 62.6 | 89.2 | 75.3 | 82.6 | 76.5 | 52.1 | 64.6 |
| Ranchi | 78.6 | 56.7 | 67.8 | 91.2 | 81.5 | 86.5 | 84.3 | 67.4 | 76.1 |
| Khunti | 72.6 | 51.4 | 61.9 | 89.3 | 78.0 | 83.7 | 74.1 | 53.7 | 63.9 |
| Gumla | 74.3 | 54.0 | 64.2 | 92.2 | 83.2 | 87.8 | 75.6 | 55.9 | 65.7 |
| Simdega | 75.0 | 58.2 | 66.6 | 89.2 | 81.5 | 85.5 | 76.1 | 59.9 | 68.0 |
| Pashchimi Singhbhum | 67.7 | 41.2 | 54.3 | 89.3 | 75.2 | 82.4 | 71.1 | 46.3 | 58.6 |
| Saraikela-Kharsawan | 76.5 | 50.3 | 63.5 | 86.6 | 73.8 | 80.5 | 79.0 | 55.9 | 67.7 |
| Jharkhand | 72.9 | 48.9 | 61.1 | 88.4 | 75.5 | 82.3 | 76.8 | 55.4 | 66.4 |

Source: Census of India, 2011

Appendix 11.2: District Wise Literacy Rate 2011 Census

| Districts | Male Literacy Rate | Female Literacy Rate | Total Literacy Rate | Districts | Male Literacy Rate | Female Literacy Rate | Total Literacy Rate |
|-----------------|--------------------|----------------------|---------------------|---------------------|--------------------|----------------------|---------------------|
| Garhwa | 72.2 | 47.6 | 60.3 | Latehar | 70 | 48.7 | 59.5 |
| Chatra | 69.9 | 49.9 | 60.2 | Hazaribagh | 80 | 59 | 69.8 |
| Kodarma | 79.8 | 53.2 | 66.8 | Ramgarh | 82.4 | 63.1 | 73.2 |
| Giridih | 76.8 | 48.7 | 63.1 | Dumka | 73 | 48.8 | 61 |
| Deoghar | 76.9 | 51.8 | 64.9 | Jamtara | 76.5 | 52.1 | 64.6 |
| Godda | 67.8 | 44.1 | 56.4 | Ranchi | 84.3 | 67.4 | 76.1 |
| Sahibganj | 60.3 | 43.3 | 52 | Khunti | 74.1 | 53.7 | 63.9 |
| Pakur | 57.1 | 40.5 | 48.8 | Gumla | 75.6 | 55.9 | 65.7 |
| Dhanbad | 83.8 | 64.3 | 74.5 | Simdega | 76.1 | 59.9 | 68 |
| Bokaro | 82.5 | 60.6 | 72 | Pashchimi Singhbhum | 71.1 | 46.3 | 58.6 |
| Lohardaga | 77.4 | 57.7 | 67.6 | Saraikela-Kharsawan | 79 | 55.9 | 67.7 |
| Purbi Singhbhum | 83.8 | 66.8 | 75.5 | Jharkhand | 76.8 | 55.4 | 66.4 |
| Palamu | 74.3 | 52.1 | 63.6 | | | | |

Source: Census of India, 2011

Appendix 11.3: Schedule Tribe (ST) Population 2011 Census District Wise Literacy Rate

| Districts | District-wise ST literacy Rate | District-wise female ST literacy Rate | District | District-wise ST literacy Rate | District-wise female ST literacy Rate |
|------------------|--------------------------------|---------------------------------------|---------------------|--------------------------------|---------------------------------------|
| Jharkhand | 57.13 | 46.2 | Palamu | 55.77 | 43.95 |
| Garhwa | 52.14 | 41.2 | Latehar | 57.4 | 46.68 |
| Chatra | 57.17 | 48.43 | Hazaribagh | 58.74 | 48.9 |
| Kodarma | 39.43 | 28.33 | Ramgarh | 60.36 | 49.45 |
| Giridih | 46.06 | 33.28 | Dumka | 52.87 | 41.51 |
| Deoghar | 48.29 | 34.41 | Jamtara | 55.13 | 42.44 |
| Godda | 43.67 | 32.29 | Ranchi | 67.91 | 58.37 |
| Sahibganj | 39.95 | 31.22 | Khunti | 61.28 | 51.19 |
| Pakur | 41.71 | 32.34 | Gumla | 63.81 | 54.31 |
| Dhanbad | 56.16 | 42.78 | Simdega | 68.76 | 61.57 |
| Bokaro | 56.27 | 44.2 | Pashchimi Singhbhum | 53.43 | 40.81 |
| Lohardaga | 63.01 | 52.83 | Saraikela-Kharsawan | 57.29 | 43.8 |
| Purbi Singhbhum | 59.66 | 47.58 | | | |

Source: Census of India, 2011

Appendix 11.4: District-wise Schedule Caste (SC) Literacy Rate 2011 Census

| Districts | District-wise SC Literacy Rate | District-wise Female SC Literacy Rate | Districts | District-wise SC Literacy Rate | District-wise Female SC Literacy Rate |
|------------------|--------------------------------|---------------------------------------|---------------------|--------------------------------|---------------------------------------|
| Jharkhand | 55.89 | 44.2 | Palamu | 50.56 | 39.37 |
| Garhwa | 53.01 | 40.85 | Latehar | 44.95 | 34.5 |
| Chatra | 43.69 | 34.71 | Hazaribagh | 58.79 | 48.01 |
| Kodarma | 56.09 | 42.61 | Ramgarh | 65.26 | 54.51 |
| Giridih | 54.08 | 39.77 | Dumka | 56.52 | 44.03 |
| Deoghar | 55.53 | 42.34 | Jamtara | 59.24 | 48.04 |
| Godda | 49.99 | 37.98 | Ranchi | 67.02 | 56.03 |
| Sahibganj | 51.87 | 41.2 | Khunti | 60.27 | 48.46 |
| Pakur | 50.31 | 40.02 | Gumla | 60.69 | 49.55 |
| Dhanbad | 62.32 | 50.11 | Simdega | 56.18 | 45.69 |
| Bokaro | 62.64 | 49.9 | Pashchimi Singhbhum | 63.74 | 50.99 |
| Lohardaga | 66.2 | 54.21 | Saraikele-Kharsawan | 58.04 | 45.45 |
| Purbi Singhbhum | 65.58 | 55.27 | | | |

Source: Census of India, 2011

Appendix 11.5 : Total Number of Schools under Elementary Education between the 2007-08 and 2015-16

| School Indicators | Number of districts covered | Total Schools | Total Government Schools | Total Private Schools |
|-------------------|-----------------------------|---------------|--------------------------|-----------------------|
| 2007-08 | 22 | 41944 | 39511 | 2124 |
| 2008-09 | 24 | 41850 | 39461 | 2082 |
| 2009-10 | 24 | 41875 | 39624 | 2250 |
| 2010-11 | 24 | 44675 | 40505 | 2703 |
| 2011-12 | 24 | 44835 | 40343 | 2475 |
| 2012-13 | 24 | 45760 | 40674 | 2583 |
| 2013-14 | 24 | 46348 | 40666 | 2335 |
| 2014-15 | 24 | 46773 | 40603 | 2354 |
| 2015-16 | 24 | 47441 | 40437 | 2586 |

Source: District Information System for Education (DISE), Elementary Education: Trends, 2015-16

Appendix 12.1: Trends in Infant and Under-five mortality (2012-13) (%)

| Districts | IMR | U5MR | Districts | IMR | U5MR |
|-----------|-----|------|---------------------|-----|------|
| Bokaro | 28 | 38 | Hazaribagh | 29 | 35 |
| Chatra | 42 | 53 | Kodarma | 27 | 33 |
| Deoghar | 31 | 40 | Lohardaga | 53 | 70 |
| Dhanbad | 26 | 37 | Pakaur | 52 | 78 |
| Dumka | 45 | 55 | Palamu | 40 | 52 |
| Garhwa | 33 | 47 | Pashchimi Singhbhum | 53 | 87 |
| Giridih | 28 | 37 | Purbi Singhbhum | 25 | 34 |
| Godda | 54 | 76 | Ranchi | 30 | 44 |
| Gumla | 45 | 70 | Sahibganj | 52 | 76 |

Source: Annual Health Survey, 2012-13

Appendix 12.2: Top ten Causes of Death in India (all ages) (2010-2013) (%)

| Causes of Death | India | Causes of Death | India |
|--|-------|--|-------|
| Cardiovascular diseases | 23.3 | Digestive diseases | 4.9 |
| Ill-defined/ All other symptoms, signs and abnormal clinical and laboratory findings | 12.4 | Unintentional injuries: Other Than Motor Vehicle Accidents | 4.7 |
| Respiratory diseases | 7.6 | Respiratory infections | 3.9 |
| Malignant and other Neoplasms | 6.1 | Tuberculosis | 3.7 |
| Perinatal conditions | 5.6 | All Other Remaining Causes | 22.6 |
| Diarrhoeal diseases | 5.1 | Total | 100 |

Source: Causes of Death Statistics, Sample Registration System

Appendix 12.3: Percentage of Tobacco users by products (2009-10) (%)

| States | Smoking | Smokeless | Dual | States | Smoking | Smokeless | Dual |
|----------------|---------|-----------|------|-------------------|---------|-----------|------|
| Jharkhand | 2.1 | 40.5 | 7.5 | Kerala | 10.7 | 8.1 | 2.6 |
| Odisha | 3.0 | 35.9 | 7.3 | Nagaland | 11.5 | 25.3 | 20.0 |
| Maharashtra | 3.8 | 24.8 | 2.8 | Arunachal Pradesh | 11.5 | 18.3 | 17.9 |
| Goa | 4.2 | 4 | 0.7 | Rajasthan | 13.4 | 13.5 | 5.4 |
| Bihar | 4.7 | 39.3 | 9.5 | Andhra Pradesh | 14.1 | 11.8 | 3.3 |
| Punjab | 5.2 | 4.8 | 1.7 | West Bengal | 14.4 | 15.0 | 15. |
| Chhattisgarh | 5.9 | 40.6 | 6.7 | Tripura | 14.5 | 28.6 | 12.8 |
| Assam | 6.6 | 24.9 | 7.8 | Sikkim | 16.0 | 15.2 | 10.4 |
| Gujarat | 7.8 | 18.4 | 3.2 | Himachal Pradesh | 16.7 | 2.9 | 1.6 |
| Madhya Pradesh | 8.1 | 22.6 | 8.8 | Haryana | 17.3 | 4.1 | 2.3 |
| Tamil Nadu | 8.1 | 6.6 | 1.5 | Jammu & Kashmir | 19 | 4.7 | 3.0 |
| Uttar Pradesh | 8.7 | 19.1 | 6.2 | Uttarakhand | 19.1 | 8.6 | 3.0 |
| Karnataka | 8.8 | 16.3 | 3.1 | Mizoram | 26.5 | 27.5 | 13.2 |
| Manipur | 9.6 | 28.5 | 16.1 | Meghalaya | 27.0 | 19.5 | 8.7 |

Source: Global Adult Tobacco Survey (GATS) (2009-10)

Appendix 12.4: Proportion of women whose BMI is below normal (BMI < 18.5 kg/m²) (2015-16) (%)

| Districts | Women BMI < 18.5 kg/m ² (%) | Districts | Women BMI < 18.5 kg/m ² (%) |
|------------|--|---------------------|--|
| Bokaro | 30.7 | Kodarma | 32.5 |
| Chatra | 37.3 | Latehar | 30.0 |
| Deoghar | 38.0 | Lohardaga | 34.9 |
| Dhanbad | 30.9 | Pakaur | 37.8 |
| Dumka | 37.3 | Palamu | 30.5 |
| Garhwa | 31.8 | Pashchimi Singhbhum | 32.4 |
| Giridih | 34.6 | Purbi Singhbhum | 20.2 |
| Godda | 35.6 | Ramgarh | 28.8 |
| Gumla | 27.5 | Ranchi | 29.1 |
| Hazaribagh | 32.4 | Sahibganj | 31.5 |
| Jamtara | 35.9 | Saraikela | 34.8 |
| Khunti | 25.5 | Simdega | 30.4 |

Source: National Family Health Survey, 2015-16

Appendix 12.5: Proportion of men whose BMI is below normal (BMI < 18.5 kg/m²) (2015-16) (%)

| Districts | Men BMI < 18.5 kg/m ² (%) | Districts | Men BMI < 18.5 kg/m ² (%) |
|------------|--------------------------------------|---------------------|--------------------------------------|
| Bokaro | 20.3 | Kodarma | 27.4 |
| Chatra | 33.3 | Latehar | 29.2 |
| Deoghar | 26.9 | Lohardaga | 25.7 |
| Dhanbad | 23.9 | Pakaur | 33.2 |
| Dumka | 17.2 | Palamu | 28.7 |
| Garhwa | 28.3 | Pashchimi Singhbhum | 25.3 |
| Giridih | 19.0 | Purbi Singhbhum | 14.8 |
| Godda | 23.7 | Ramgarh | 24.3 |
| Gumla | 24.3 | Ranchi | 27.3 |
| Hazaribagh | 21.5 | Sahibganj | 24.0 |
| Jamtara | 22.7 | Saraikela | 23.9 |
| Khunti | 16.4 | Simdega | 29.3 |

Source: National Family Health Survey, 2015-16

Appendix 12.6: Proportion of women who are anaemic (2015-16) (%)

| Districts | Women - All women age 15-49 years who are anaemic (%) | Districts | Women - All women age 15-49 years who are anaemic (%) |
|------------|---|---------------------|---|
| Bokaro | 72.4 | Kodarma | 61.8 |
| Chatra | 56.6 | Latehar | 53.9 |
| Deoghar | 55.9 | Lohardaga | 66.7 |
| Dhanbad | 63.6 | Pakaur | 71.1 |
| Dumka | 63.7 | Palamu | 53.6 |
| Garhwa | 60.1 | Pashchimi Singhbhum | 72.8 |
| Giridih | 68.5 | Purbi Singhbhum | 66.6 |
| Godda | 71.6 | Ramgarh | 67.6 |
| Gumla | 69.6 | Ranchi | 64.5 |
| Hazaribagh | 60.8 | Sahibganj | 61.9 |
| Jamtara | 64.5 | Saraikela | 78.8 |
| Khunti | 64.1 | Simdega | 78.2 |

Source: National Family Health Survey, 2015-16

Appendix 12.7: Proportion of men who are anaemic (2015-16) (%)

| Districts | Men - All men age 15-49 years who are anaemic (%) | Districts | Men - All men age 15-49 years who are anaemic (%) |
|------------|---|---------------------|---|
| Bokaro | 39.5 | Kodarma | 29.0 |
| Chatra | 29.5 | Latehar | 41.7 |
| Deoghar | 18.7 | Lohardaga | 44.8 |
| Dhanbad | 31.4 | Pakaur | 28.3 |
| Dumka | 29.4 | Palamu | 23.9 |
| Garhwa | 28.4 | Pashchimi Singhbhum | 30.6 |
| Giridih | 27.3 | Purbi Singhbhum | 35.0 |
| Godda | 26.6 | Ramgarh | 30.4 |
| Gumla | 35.9 | Ranchi | 27.6 |
| Hazaribagh | 17.9 | Sahibganj | 21.8 |
| Jamtara | 33.3 | Saraikela | 38.7 |
| Khunti | 42.0 | Simdega | 41.5 |

Source: National Family Health Survey, 2015-16

Appendix 12.8: Proportion of mothers who had full antenatal care (2015-16) (%)

| Districts | Full ANC | Districts | Full ANC |
|------------|----------|---------------------|----------|
| Bokaro | 16.7 | Kodarma | 9.1 |
| Chatra | 2.6 | Latehar | 3.4 |
| Deoghar | 9.0 | Lohardaga | 6.1 |
| Dhanbad | 12.9 | Pakaur | 4.2 |
| Dumka | 6.5 | Palamu | 4.0 |
| Garhwa | 1.6 | Pashchimi Singhbhum | 4.6 |
| Giridih | 6.5 | Purbi Singhbhum | 9.9 |
| Godda | 3.0 | Ramgarh | 11.4 |
| Gumla | 6.3 | Ranchi | 17.4 |
| Hazaribagh | 9.6 | Sahibganj | 3.3 |
| Jamtara | 9.2 | Saraikela | 6.8 |
| Khunti | 13.5 | Simdega | 1.7 |

Source: National Family Health Survey, 2015-16

Appendix 12.9: Proportion of women who received antenatal care checkups and its components (as on September 2017) (%)

| Districts | Received 3 ANC check ups | Received TT2 or Booster | Given 100 IFA | Districts | Received 3 ANC check ups | Received TT2 or Booster | Given 100 IFA |
|-----------------|--------------------------|-------------------------|---------------|---------------------|--------------------------|-------------------------|---------------|
| Saraikela | 94.5 | 87.2 | 102.9 | Pashchimi Singhbhum | 77.1 | 77.2 | 60.0 |
| Dhanbad | 87.4 | 79.0 | 75.4 | Simdega | 76.7 | 79.9 | 103.6 |
| Ramgarh | 86.4 | 74.2 | 64.5 | Bokaro | 76.6 | 70.1 | 79.6 |
| Chatra | 86.3 | 80.6 | 97.5 | Pakaur | 76.3 | 78.2 | 60.7 |
| Godda | 85.5 | 95.5 | 84.2 | Hazaribagh | 74.7 | 77.5 | 78.5 |
| Jamtara | 84.0 | 78.9 | 87.4 | Ranchi | 74.3 | 74.3 | 47.8 |
| Lohardaga | 82.2 | 79.7 | 73.3 | Latehar | 73.4 | 87.4 | 88.4 |
| Purbi Singhbhum | 82.1 | 73.6 | 54.9 | Deoghar | 73.0 | 82.8 | 89.7 |
| Khunti | 80.6 | 85.8 | 94.6 | Gumla | 72.0 | 79.6 | 75.1 |
| Dumka | 79.3 | 81.9 | 63.1 | Garhwa | 70.0 | 84.3 | 72.9 |
| Kodarma | 78.8 | 87.1 | 67.8 | Sahibganj | 68.6 | 87.9 | 84.3 |
| Giridih | 78.7 | 87.6 | 88.9 | Palamu | 60.4 | 66.9 | 78.1 |

Source: Health Management Information System, Ministry of Health and Family Welfare, Government of India

Appendix 12.10: Proportion of women who had institutional deliveries (as on September 2017) (%)

| Districts | % Institutional deliveries to Total Reported Deliveries | Districts | % Institutional deliveries to Total Reported Deliveries |
|-----------------|---|---------------------|---|
| Kodarma | 99.0 | Garhwa | 90.8 |
| Godda | 93.5 | Sahibganj | 89.0 |
| Lohardaga | 93.7 | Hazaribagh | 84.5 |
| Palamu | 89.9 | Ramgarh | 86.3 |
| Purbi Singhbhum | 94.0 | Latehar | 85.2 |
| Ranchi | 93.0 | Chatra | 84.2 |
| Dhanbad | 91.9 | Pashchimi Singhbhum | 83.5 |
| Bokaro | 90.5 | Giridih | 79.0 |
| Deoghar | 88.9 | Khunti | 83.9 |
| Gumla | 89.6 | Simdega | 83.1 |
| Jamtara | 90.3 | Dumka | 77.9 |
| Saraikela | 88.4 | Pakaur | 70.7 |

Source: Health Management Information System, Ministry of Health and Family Welfare, Government of India

Appendix 12.11: Proportion of women who had safe deliveries (%)
(as on September 2017)

| Districts | % Safe deliveries to Total Reported Deliveries | Districts | % Safe deliveries to Total Reported Deliveries |
|-----------------|--|---------------------|--|
| Kodarma | 99.4 | Garhwa | 91.6 |
| Godda | 97.5 | Sahibganj | 91.6 |
| Lohardaga | 95.8 | Hazaribagh | 90.1 |
| Palamu | 95.2 | Ramgarh | 89.2 |
| Purbi Singhbhum | 94.8 | Latehar | 87.9 |
| Ranchi | 94.6 | Chatra | 87.6 |
| Dhanbad | 94.0 | Pashchimi Singhbhum | 86.9 |
| Bokaro | 94.0 | Giridih | 86.3 |
| Deoghar | 92.8 | Khunti | 86.1 |
| Gumla | 92.3 | Simdega | 85.5 |
| Jamtara | 92.0 | Dumka | 82.1 |
| Saraikela | 92.0 | Pakaur | 74.1 |

Source: Health Management Information System, Ministry of Health and Family Welfare, Government of India

Appendix 12.12: Proportion of children under 5 years who are stunted (2015-16) (%)

| Districts | Stunted (height-for-age) (-2SD) | Districts | Stunted (height-for-age) (-2SD) |
|------------|---------------------------------|---------------------|---------------------------------|
| Kodarma | 42.4 | Latehar | 44.2 |
| Saraikela | 45.1 | Jamtara | 44.1 |
| Giridih | 45.8 | Ramgarh | 38.7 |
| Palamu | 45.4 | Chatra | 49.6 |
| Deoghar | 44.8 | Garhwa | 45.6 |
| Pakaur | 51.8 | Gumla | 45.8 |
| Hazaribagh | 49.3 | Simdega | 39.2 |
| Sahibganj | 50.2 | Bokaro | 39.8 |
| Godda | 54.0 | Pashchimi Singhbhum | 59.4 |
| Ranchi | 40.7 | Purbi Singhbhum | 39.3 |
| Dhanbad | 38.5 | Dumka | 43.8 |
| Lohardaga | 41.7 | Khunti | 40.1 |

Source: National Family Health Survey, 2015-16

Appendix 12.13: Proportion of children under 5 years who are underweight (2015-16) (%)

| Districts | Underweight (weight-for-age) (-2SD) | Districts | Underweight (weight-for-age) (-2SD) |
|------------|-------------------------------------|---------------------|-------------------------------------|
| Kodarma | 42.2 | Latehar | 44.2 |
| Saraikela | 52.6 | Jamtara | 48.8 |
| Giridih | 40.6 | Ramgarh | 46.3 |
| Palamu | 43.9 | Chatra | 51.3 |
| Deoghar | 46.0 | Garhwa | 50.7 |
| Pakaur | 46.9 | Gumla | 47.7 |
| Hazaribagh | 47.1 | Simdega | 47.9 |
| Sahibganj | 49.7 | Bokaro | 50.8 |
| Godda | 46.0 | Pashchimi Singhbhum | 66.9 |
| Ranchi | 43.8 | Purbi Singhbhum | 49.8 |
| Dhanbad | 42.6 | Dumka | 53.5 |
| Lohardaga | 48.1 | Khunti | 53.8 |

Source: National Family Health Survey, 2015-16

Appendix 12.14: Proportion of children under 5 years who are wasted (2015-16) (%)

| Districts | Wasted (weight-for-height) (-2SD) | Districts | Wasted (weight-for-Height) (-2SD) |
|------------|-----------------------------------|---------------------|-----------------------------------|
| Kodarma | 20.3 | Latehar | 29.0 |
| Saraikela | 23.3 | Jamtara | 29.8 |
| Giridih | 23.6 | Ramgarh | 30.3 |
| Palamu | 23.8 | Chatra | 30.6 |
| Deoghar | 23.8 | Garhwa | 31.3 |
| Pakaur | 24.2 | Gumla | 31.7 |
| Hazaribagh | 24.5 | Simdega | 36.7 |
| Sahibganj | 24.6 | Bokaro | 36.9 |
| Godda | 24.8 | Pashchimi Singhbhum | 37.5 |
| Ranchi | 27.2 | Purbi Singhbhum | 40.6 |
| Dhanbad | 28.1 | Dumka | 41.4 |
| Lohardaga | 28.9 | Khunti | 43.0 |

Source: National Family Health Survey, 2015-16

**Appendix 12.15: Proportion of children under age 3 years
breastfed within one hour (2015-16) (%)**

| Districts | Breastfed within one hour | Districts | Breastfed within one hour |
|------------|---------------------------|---------------------|---------------------------|
| Godda | 40.6 | Pashchimi Singhbhum | 31.5 |
| Pakaur | 40.6 | Saraikela | 44.1 |
| Hazaribagh | 41.5 | Simdega | 34.1 |
| Bokaro | 23.0 | Dhanbad | 20.1 |
| Dumka | 31.4 | Kodarma | 19.2 |
| Ranchi | 38.4 | Purbi Singhbhum | 25.1 |
| Ramgarh | 36.1 | Gumla | 31.7 |
| Deoghar | 33.6 | Garhwa | 32.1 |
| Khunti | 30.1 | Lohardaga | 55.5 |
| Giridih | 39.5 | Palamu | 34.6 |
| Sahibganj | 29.5 | Latehar | 31.6 |
| Jamtara | 32.9 | Chatra | 27.2 |

Source: National Family Health Survey, 2015-16

**Appendix 12.16: Proportion of children under age 6 months
exclusively breastfed (2015-16) (%)**

| Districts | Exclusive breastfeeding | Districts | Exclusive breastfeeding |
|------------|-------------------------|---------------------|-------------------------|
| Godda | 79.6 | Pashchimi Singhbhum | 66.0 |
| Pakaur | 76.0 | Saraikela | 65.3 |
| Hazaribagh | 74.7 | Simdega | 64.9 |
| Bokaro | 74.2 | Dhanbad | 63.8 |
| Dumka | 71.8 | Kodarma | 61.9 |
| Ranchi | 71.3 | Purbi Singhbhum | 55.9 |
| Ramgarh | 71.2 | Gumla | 53.1 |
| Deoghar | 70.5 | Garhwa | 51.8 |
| Khunti | 70.0 | Lohardaga | 49.9 |
| Giridih | 68.2 | Palamu | 48.5 |
| Sahibganj | 68.1 | Latehar | 48.2 |
| Jamtara | 67.8 | Chatra | 42.2 |

Source: National Family Health Survey, 2015-16

Appendix 12.17: Proportion of children age 9-11 months fully immunized (as on September 2017) (%)

| Districts | % fully immunized children (9-11 months) | Districts | % fully immunized children (9-11 months) |
|------------|--|---------------------|--|
| Bokaro | 104 | Kodarma | 89 |
| Chatra | 127 | Latehar | 111 |
| Deoghar | 102 | Lohardaga | 121 |
| Dhanbad | 101 | Pakaur | 113 |
| Dumka | 123 | Palamu | 96 |
| Garhwa | 105 | Pashchimi Singhbhum | 119 |
| Giridih | 107 | Purbi Singhbhum | 112 |
| Godda | 115 | Ramgarh | 121 |
| Gumla | 120 | Ranchi | 121 |
| Hazaribagh | 95 | Sahibganj | 101 |
| Jamtara | 119 | Saraikela | 115 |
| Khunti | 123 | Simdega | 96 |

Source: Health Management Information System, Ministry of Health and Family Welfare, Government of India

Appendix 12.18: Proportion of adolescents who are undernourished and over-nourished (2014) (%)

| Districts | Below -2 SD Undernourished (BMI for Age) (%) | Above 2 SD Overnourished (BMI for Age) (%) | Districts | Below -2 SD Undernourished (BMI for Age) (%) | Above 2 SD Overnourished (BMI for Age) (%) |
|--------------------|--|--|-----------|--|--|
| Pakaur | 38.5 | 3.0 | Giridih | 43.4 | 0.6 |
| Paschimi Singhbhum | 19.5 | 3.4 | Dhanbad | 34.0 | 7.7 |
| Purbi Singhbhum | 26.7 | 1.8 | Dumka | 29.4 | 0.0 |
| Godda | 34.2 | 1.8 | Ranchi | 21.8 | 1.7 |
| Gumla | 31.3 | 3.2 | Chatara | 43.2 | 0.6 |
| Hazaribagh | 28.1 | 0.4 | Bokaro | 26.3 | 1.4 |
| Sahibganj | 48.5 | 1.3 | Kodarma | 39.7 | 0.7 |
| Palamu | 32.3 | 1.5 | Lohardaga | 25.2 | 0.9 |
| Garhwa | 29.7 | 1.0 | Deoghar | 36.7 | 1.4 |

Source: Clinical, Anthropometric and Biochemical-Annual Health Survey, 2014

Appendix 13.1: Proportion of households having access to improved drinking water facility (2015-16) (%)

| Districts | Improved drinking water facility | Districts | Improved drinking water facility |
|-----------------|----------------------------------|---------------------|----------------------------------|
| Palamu | 90.5 | Sahibganj | 77.6 |
| Jamtara | 90.4 | Latehar | 76.3 |
| Purbi Singhbhum | 90.2 | Ranchi | 75.0 |
| Pakaur | 89.3 | Lohardaga | 71.2 |
| Dumka | 89.0 | Pashchimi Singhbhum | 68.9 |
| Deoghar | 86.6 | Ramgarh | 67.8 |
| Garhwa | 86.3 | Hazaribagh | 67.5 |
| Godda | 83.8 | Chatra | 66.9 |
| Saraikela | 80.7 | Giridih | 65.6 |
| Kodarma | 80.6 | Simdega | 59.6 |
| Bokaro | 79.8 | Khunti | 53.5 |
| Dhanbad | 78.9 | Gumla | 47.5 |

Source: National Family Health Survey, 2015-16

Appendix 13.2: Proportion of households having access to improved toilet facility (2015-16) (%)

| Districts | Improved toilet facility | Districts | Improved toilet facility |
|------------|--------------------------|---------------------|--------------------------|
| Bokaro | 35.8 | Kodarma | 28.6 |
| Chatra | 14.6 | Latehar | 12.0 |
| Deoghar | 22.3 | Lohardaga | 19.5 |
| Dhanbad | 28.6 | Pakaur | 13.4 |
| Dumka | 12.1 | Palamu | 17.2 |
| Garhwa | 10.8 | Pashchimi Singhbhum | 16.1 |
| Giridih | 18.3 | Purbi Singhbhum | 43.4 |
| Godda | 17.1 | Ramgarh | 39.3 |
| Gumla | 16.3 | Ranchi | 37.8 |
| Hazaribagh | 27.7 | Sahibganj | 24.7 |
| Jamtara | 14.0 | Saraikela | 27.0 |
| Khunti | 14.0 | Simdega | 8.5 |

Source: National Family Health Survey, 2015-16

Appendix 13.3: Coverage status of rural sanitation (as on December 2017)

| State | 2014-15 | 2015-16 | 2016-17 | 2017-18 |
|-----------|---------|---------|---------|---------|
| India | 38.7 | 50.24 | 63.49 | 74.42 |
| Jharkhand | 26.57 | 34.7 | 52.35 | 65.35 |

Source: Swaach Bharat Mission (Gramin), Ministry of Drinking Water and Sanitation, GoI

Appendix 13.4: District wise coverage status of rural sanitation (as on December 2017)

| Districts | Percentage coverage rural sanitation | Districts | Percentage coverage rural sanitation |
|-----------|--------------------------------------|---------------------|--------------------------------------|
| Godda | 26.27 | Deoghar | 80.44 |
| Palamu | 40.51 | Sahibganj | 80.55 |
| Dhanbad | 43.67 | Dumka | 81.89 |
| Garhwa | 43.67 | Purbi Singhbhum | 82.50 |
| Gumla | 48.88 | Jamtara | 82.86 |
| Giridih | 51.00 | Latehar | 85.33 |
| Simdega | 54.72 | Pashchimi Singhbhum | 85.39 |
| Bokaro | 57.16 | Khunti | 88.13 |
| Ranchi | 59.09 | Hazaribagh | 89.79 |
| Saraikela | 63.11 | Kodarma | 100.00 |
| Pakaur | 67.18 | Lohardaga | 100.00 |
| Chatra | 68.89 | Ramgarh | 100.00 |

Source: Swaach Bharat Mission (Gramin), Ministry of Drinking Water and Sanitation, GoI

Appendix 14.1: Total number of beneficiaries of Mukhyamantri Kanyadan Yojna

| Districts | Total number of beneficiaries (as on December 2017) | Districts | Total number of beneficiaries (as on December 2017) |
|------------|---|---------------------|---|
| Bokaro | 490 | Koderma | 367 |
| Chatra | 440 | Latehar | 588 |
| Deoghar | 478 | Lohardaga | 891 |
| Dhanbad | 805 | Pakur | 392 |
| Dumka | 476 | Palamau | 422 |
| Garhwa | 362 | Pashchimi Singhbhum | 429 |
| Giridih | 656 | Purbi Singhbhum | 741 |
| Godda | 371 | Ramgarh | 232 |
| Gumla | 421 | Ranchi | 1113 |
| Hazaribagh | 667 | Sahebganj | 400 |
| Jamtara | 224 | Saraikela | 408 |
| Khunti | 405 | Simdega | 916 |

Source: Department of Women, Child and Social Security, Government of Jharkhand

Appendix 14.2: Total number of beneficiaries of components of Supplementary Nutrition Program(as on December 2017)

| Districts | HCM | THR | Districts | HCM | THR |
|---------------------|--------|--------|-----------------|--------|--------|
| Deoghar | 61401 | 48249 | Godda | 76307 | 128372 |
| Ranchi | 65925 | 41247 | Garhwa | 47842 | 89136 |
| Simdega | 31837 | 90527 | Gumla | 46999 | 137782 |
| Hazaribagh | 62124 | 112469 | Sahebganj | 85716 | 130096 |
| Saraikela | 53755 | 48404 | Ramgarh | 26607 | 108423 |
| Khunti | 21495 | 137916 | Palamau | 131024 | 165437 |
| Koderma | 39224 | 172788 | Purbi Singhbhum | 164333 | 81117 |
| Dumka | 169625 | 134732 | Chatra | 40119 | 138738 |
| Lohardaga | 26598 | 42669 | Jamtara | 51521 | 77958 |
| Bokaro | 64804 | 116077 | Giridih | 81370 | 64437 |
| Pashchimi Singhbhum | 77081 | 125094 | Latehar | 30834 | 137730 |
| Pakur | 44063 | 59562 | Dhanbad | 71677 | 155813 |

Source: Department of Women, Child and Social Security, Government of Jharkhand

Appendix 14.3: Total number of beneficiaries of Mukhyamantri Laxmi Ladli Yojna (as on December 2017)

| Districts | Total number of beneficiaries (as on December 2017) | Districts | Total number of beneficiaries (as on December 2017) |
|-----------|--|---------------------|--|
| Khunti | 1605 | Palamau | 4513 |
| Sahebganj | 2007 | Garhwa | 4561 |
| Simdega | 2201 | Dumka | 5190 |
| Chatra | 2441 | Godda | 5912 |
| Koderma | 2454 | Giridih | 5940 |
| Lohardaga | 2951 | Deoghar | 6235 |
| Gumla | 3423 | Pashchimi Singhbhum | 6320 |
| Ramgarh | 3439 | Dhanbad | 7694 |
| Pakur | 3449 | Purbi Singhbhum | 8795 |
| Jamtara | 3525 | Hazaribagh | 11270 |
| Saraikela | 3545 | Bokaro | 13990 |
| Latehar | 3731 | Ranchi | 15120 |

Source: Department of Women, Child and Social Security, Government of Jharkhand

Appendix 14.4: Total number of beneficiaries of Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana (SVNSPY)

| Districts | Total number of beneficiaries (as on December 2017) | Districts | Total number of beneficiaries (as on December 2017) |
|---------------------|--|------------|--|
| Dumka | 9397 | Jamtara | 7101 |
| Pashchimi Singhbhum | 4300 | Godda | 8054 |
| Chatra | 6641 | Saraikela | 4106 |
| Simdega | 1856 | Ramgarh | 6810 |
| Palamau | 6733 | Hazaribagh | 15602 |
| Purbi Singhbhum | 9709 | Giridih | 10973 |
| Dhanbad | 14283 | Bokaro | 11359 |
| Gumla | 4673 | Koderma | 2025 |
| Garhwa | 3876 | Lohardaga | 5063 |
| Ranchi | 12570 | Latehar | 2414 |
| Sahebganj | 3899 | Khunti | 1932 |
| Pakur | 2353 | Deoghar | 14211 |

Source: Department of Women, Child and Social Security, Government of Jharkhand

Appendix 14.5: Total number of beneficiaries of State Social Security Pension Scheme

| Districts | SSSOAPS | Districts | SSSOAPS |
|----------------|---------|----------------|---------|
| Bokaro | 9283 | Khunti | 7592 |
| Chatra | 15084 | Koderma | 5129 |
| Deoghar | 9077 | Latehar | 9494 |
| Dhanbad | 16700 | Lohardaga | 5906 |
| Dumka | 11830 | Pakur | 7042 |
| East Singhbhum | 9941 | Palamau | 33193 |
| Garhwa | 16825 | Ramgarh | 5648 |
| Giridih | 16279 | Ranchi | 25960 |
| Godda | 9853 | Sahebganj | 8613 |
| Gumla | 9910 | Saraikela | 8385 |
| Hazaribagh | 12295 | Simdega | 8806 |
| Jamtara | 6293 | West Singhbhum | 12814 |

Source: Department of Women, Child and Social Security, Government of Jharkhand

**Appendix 14.6: Total number of beneficiaries of Pension
Scheme for Primitive Tribal Group(as on December 2017)**

| Districts | PSPTG/AJJPY | Districts | PSPTG/AJJPY |
|----------------|-------------|----------------|-------------|
| Bokaro | 117 | Khunti | 17 |
| Chatra | 660 | Koderma | 273 |
| Deoghar | 687 | Latehar | 2494 |
| Dhanbad | 51 | Lohardaga | 375 |
| Dumka | 5610 | Pakur | 5098 |
| East Singhbhum | 3812 | Palamau | 1703 |
| Garhwa | 5241 | Ramgarh | 158 |
| Giridih | 131 | Ranchi | 248 |
| Godda | 3184 | Sahebganj | 3700 |
| Gumla | 2725 | Saraikela | 445 |
| Hazaribagh | 226 | Simdega | 155 |
| Jamtara | 832 | West Singhbhum | 160 |

Source: Department of Women, Child and Social Security, Government of Jharkhand

**Appendix 14.7: Total number of beneficiaries of State Widow Pension
Scheme (as on December 2017)**

| Districts | RVSPY | Districts | RVSPY |
|----------------|-------|----------------|-------|
| Bokaro | 9410 | Khunti | 2932 |
| Chatra | 4785 | Koderma | 2750 |
| Deoghar | 5170 | Latehar | 2305 |
| Dhanbad | 6325 | Lohardaga | 3127 |
| Dumka | 5550 | Pakur | 1287 |
| East Singhbhum | 10949 | Palamau | 4521 |
| Garhwa | 4213 | Ramgarh | 2899 |
| Giridih | 10597 | Ranchi | 10977 |
| Godda | 3621 | Sahebganj | 3021 |
| Gumla | 5299 | Saraikela | 6004 |
| Hazaribagh | 6302 | Simdega | 2723 |
| Jamtara | 2719 | West Singhbhum | 6160 |

Source: Department of Women, Child and Social Security, Government of Jharkhand

**Appendix 14.8: Total number of beneficiaries of
State Pension scheme for HIV/AIDS Affected persons (as on December 2017)**

| Districts | IDPS | Districts | IDPS |
|----------------|------|----------------|------|
| Giridih | 397 | Godda | 20 |
| Hazaribagh | 281 | Khunti | 20 |
| East Singhbhum | 217 | Pakur | 20 |
| Ranchi | 191 | Simdega | 18 |
| Palamau | 168 | Jamtara | 17 |
| Dhanbad | 117 | Deoghar | 16 |
| Gadhwa | 104 | Chatra | 14 |
| Koderma | 96 | Latehar | 11 |
| Bokaro | 78 | West Singhbhum | 6 |
| Dumka | 49 | Lohardaga | 3 |
| Ramgarh | 46 | Saraikela | 3 |
| Gumla | 45 | Sahebganj | 0 |

Source: Department of Women, Child and Social Security, Government of Jharkhand

Appendix 15.1: Tribes of Jharkhand: Racial and linguistic affinity Matrix- after Amendment N0-10 of 2003- 7 Jan 2003

| Sl. No. | Name of Tribes | Habitation: Districts of Jharkhand | Racial Types | Dialect | Linguistic Affinity |
|---------|--|--|------------------|--|---|
| 1. | Asur/Agaria (PVTG) | Gumla, Lohardaga, Palamu, Latehar | Proto Australoid | Asuri | Austro -Asiatic |
| 2. | Baiga | Highlands of Central India | Proto Australoid | Sadani | Indo-Aryan |
| 3. | Banjara | Raj mahal, Godda, Santhal Pargana | Proto Australoid | Sadani | Indo-Aryan |
| 4. | Bathudi | Singhbhum | Proto Australoid | Mixed | Indo-Aryan |
| 5. | Bedia | Ranchi, Hazaribagh, Singhbhum, Santhal Pargana | Proto Australoid | Sadani | Indo-Aryan |
| 6. | Binjhia (PVTG) | Simdega, Khunti, | Proto Australoid | Sadani | Indo-Aryan |
| 7. | Birhor (PVTG) | Dhanbad, Gumla, Giridh, Garhwa, Hazaribagh, Lohardaga, Palamu, Ranchi | Proto Australoid | A dialect of Mundari | Austro-Asiatic |
| 8. | Birjia (PVTG) | Gumla, Lohardaga, Palamu, Ranchi | Proto Australoid | Sedan, Bengali | Indo-Aryan |
| 9. | Bhumij | Gumla, Lohardaga, Singhbhum, Ranchi, Hazaribagh, Dhanbad | Proto Australoid | A dialect of Mundari, Sadani and Bengali | Austro-Asiatic/ Indo-Aryan |
| 10. | Chero | Palamu, Latehar, Ranchi, Santhal Pargana | Proto Australoid | Mundari | Austro-Asiatic (No language of its own) |
| 11. | Chick-Baraik | Gumla, Lohardaga, Ranchi | Proto Australoid | Sadani | Indo-Aryan |
| 12. | Gond | Ranchi, Palamu, Singhbhum | Proto Australoid | Gondi | Dravidian |
| 13. | Gorait | Hazaribag, Dhanbad, Singhbhum Lohardaga, Palamu, Ranchi, Santhal Pargana | Proto Australoid | Sadani | Indo-Aryan |
| 14. | Ho | Singhbhum | Proto Australoid | Ho | Austro-Asiatic |
| 15. | Karmali | Hazaribagh, Bokaro, Singhbhum, Ranchi, Santhal Pargana | Proto Australoid | Karmali | Austro-Asiatic |
| 16. | Kharia Dhelki Kharia, Dudh Kharia, Hill Kharia | Gumla, Ranchi, Singhbhum, Hazaribagh | Proto Australoid | Kharia | Austro-Asiatic |
| 17. | Kharwar | Chatra, Garhwa, Hazaribagh, Latehar, Lohardaga, Palamu, Ranchi | Proto Australoid | Sadani | Indo-Aryan |

| Sl. No. | Name of Tribes | Habitation: Districts of Jharkhand | Racial Types | Dialect | Linguistic Affinity |
|---------|---|---|------------------|----------------------|---|
| 18. | Khond | Singhbhum, Hazaribagh | Proto Australoid | Khond | Austro-Asiatic |
| 19. | Kisan/Nagesia | Hazaribagh, Dhanbad, Singhbhum, Ranchi, Santhal Pargana, Garhwa, Hazaribagh, Latehar, Lohardaga, Palamu, Ranchi | Proto Australoid | Mundari | Austro-Asiatic language of its own) (No) |
| 20. | Kora/ Mudi Kora | Dumka, Godda, Deoghar, Pakur, Sahibganj, Dhanbad, Bokaro, Hazaribagh, Chaibasa | Proto Australoid | A dialect of Mundari | Austro-Asiatic |
| 21. | Korwa (PVTG) | Hazaribagh, Dhanbad, Ranchi, Santhal Pargana, Latehar, Palamu | Proto Australoid | Korwa | Austro-Asiatic Closely related to Asuri |
| 22. | Lohra/ Lohra | Hazaribagh, Singhbhum, Ranchi, Santhal Pargana, Palamu | Proto Australoid | Sadani | Indo-Aryan |
| 23. | Mahli | Hazaribagh, Singhbhum, Ranchi, Santhal Pargana, Gumla, Dhanbad | Proto Australoid | Mahle | Austro-Asiatic Mahle is sub-dialect of Santali |
| 24. | Mal-Paharia/ Kumarbhag Paharia (PVTG) | Dumka, Jamtara, Deoghar, Godda | Proto Australoid | Malto | Dravidian Now they speak Bengali, Sadani, Hindi |
| 25. | Munda/ Patar | Hazaribagh, Singhbhum, Ranchi, Santhal Pargana, Palamu, Gumla, Giridih | Proto Australoid | Mundari | Austro-Asiatic |
| 26. | Oraon / Dhangar Oraon | Hazaribagh, Singhbhum, Ranchi, Santhal Pargana, Palamu, Garhwa, Dhanbad, Latehar, Lohardaga, Gumla | Proto Australoid | Kurukh | Dravidian |
| 27. | Parahia (PVTG) | Ranchi, Gumla, Hazaribagh, Santhal Pargana, Palamu | Proto Australoid | Sadani | Indo-Aryan |
| 28. | Santhal | Hazaribagh, Singhbhum, Ranchi, Santhal Pargana, Giridih, Dhanbad, | Proto Australoid | Santhali | Austro-Asiatic |
| 29. | Sauria Paharia | Godda, Pakur, Rajmahal | Proto Australoid | Malto | Dravidian |
| 30. | Savar (PVTG) | Singhbhum | Proto Australoid | Kharria | Austro-Asiatic Hill -Kharrias are called Savars |
| 31. | Kol (Included in ST category in 2003) | Dumka, Deoghar, Giridih | Proto Australoid | Kol | Austro-Asiatic Similar to Santhali |
| 32. | Kawar (Included in ST category in 2003) | Palamu, Gumla, Simdega | Proto Australoid | Sadani | Indo-Aryan |

Sources: Land and People of Jharkhand, JTWRI, Ranchi, 2003; Amendment NO-10 of 2003- 7 Jan 2003; Land and People of Tribal Bihar; BTRI, Ranchi, 1961.

Appendix 15.2: District-wise ST and SC Households in Jharkhand, 2011

| Sl. No. | Districts | Total Households | Total ST Households | Total SC Households | % of ST Households | % of SC Households |
|------------------|---------------------|------------------|---------------------|---------------------|--------------------|--------------------|
| 1 | Garhwa | 229414 | 31164 | 54569 | 13.58 | 23.79 |
| 2 | Chatra | 175409 | 7922 | 58497 | 4.52 | 33.35 |
| 3 | Kodarma | 96609 | 945 | 14824 | 0.98 | 15.34 |
| 4 | Giridih | 383640 | 41141 | 52538 | 10.72 | 13.69 |
| 5 | Deoghar | 216632 | 33142 | 30282 | 15.30 | 13.98 |
| 6 | Godda | 243676 | 55081 | 22079 | 22.60 | 9.06 |
| 7 | Sahibganj | 205762 | 65187 | 12434 | 31.68 | 6.04 |
| 8 | Pakur | 173746 | 78702 | 4993 | 45.30 | 2.87 |
| 9 | Dhanbad | 260908 | 37285 | 40541 | 14.29 | 15.54 |
| 10 | Bokaro | 276821 | 46458 | 45431 | 16.78 | 16.41 |
| 11 | Lohardaga | 79897 | 48460 | 3056 | 60.65 | 3.82 |
| 12 | Purbi Singhbhum | 273216 | 126107 | 26259 | 46.16 | 9.61 |
| 13 | Palamu | 325420 | 30543 | 89051 | 9.39 | 27.36 |
| 14 | Latehar | 128904 | 60141 | 29624 | 46.66 | 22.98 |
| 15 | Hazaribagh | 278302 | 21033 | 53853 | 7.56 | 19.35 |
| 16 | Ramgarh | 155863 | 36613 | 17774 | 23.49 | 11.40 |
| 17 | Dumka | 262618 | 121357 | 16057 | 46.21 | 6.11 |
| 18 | Jamtara | 139849 | 45259 | 14182 | 32.36 | 10.14 |
| 19 | Ranchi | 346242 | 133072 | 16013 | 38.43 | 4.62 |
| 20 | Khunti | 95140 | 71400 | 4840 | 75.05 | 5.09 |
| 21 | Gumla | 172479 | 99915 | 10427 | 57.93 | 6.05 |
| 22 | Simdega | 108003 | 72374 | 11844 | 67.01 | 10.97 |
| 23 | Pashchimi Singhbhum | 247857 | 154862 | 15040 | 62.48 | 6.07 |
| 24 | Saraikela-Kharsawan | 167827 | 50474 | 9075 | 30.08 | 5.41 |
| Jharkhand | | 5044234 | 1468637 | 653283 | 29.12 | 12.95 |

Source: Socio-Economic and Caste Census of India, 2011

Appendix 15.3: District wise Monthly Household Income of ST and SC Households in Jharkhand, 2011

| Sl. No. | District Name | % ST Households with monthly Income of highest earning household member | | | % SC Households with monthly Income of Highest earning household member | | |
|------------------|---------------------|---|--------------|-------------|---|--------------|-------------|
| | | < 5000 | 5000 - 10000 | > 10000 | < 5000 | 5000 - 10000 | > 10000 |
| | All India | 86.58 | 8.94 | 4.48 | 83.59 | 11.74 | 4.67 |
| 1 | Garhwa | 89.78 | 8.43 | 1.79 | 86.80 | 9.90 | 3.29 |
| 2 | Chatra | 82.39 | 10.22 | 7.38 | 91.88 | 5.93 | 2.18 |
| 3 | Kodarma | 90.26 | 2.96 | 6.77 | 81.60 | 12.74 | 5.67 |
| 4 | Giridih | 93.25 | 4.57 | 2.18 | 82.11 | 10.67 | 7.21 |
| 5 | Deoghar | 90.09 | 6.98 | 2.94 | 91.20 | 5.60 | 3.20 |
| 6 | Godda | 89.09 | 7.51 | 3.41 | 86.85 | 9.12 | 4.03 |
| 7 | Sahibganj | 90.30 | 6.77 | 2.93 | 89.71 | 7.12 | 3.18 |
| 8 | Pakur | 94.10 | 4.38 | 1.51 | 92.63 | 4.93 | 2.44 |
| 9 | Dhanbad | 85.34 | 6.08 | 8.58 | 75.45 | 7.47 | 17.08 |
| 10 | Bokaro | 82.62 | 8.19 | 9.19 | 82.19 | 7.18 | 10.63 |
| 11 | Lohardaga | 86.24 | 9.85 | 3.91 | 92.70 | 4.71 | 2.59 |
| 12 | Purbi Singhbhum | 70.66 | 22.81 | 6.53 | 48.63 | 38.48 | 12.88 |
| 13 | Palamu | 78.65 | 15.13 | 6.22 | 85.57 | 9.37 | 5.07 |
| 14 | Latehar | 91.36 | 5.12 | 3.53 | 94.60 | 3.65 | 1.76 |
| 15 | Hazaribagh | 81.14 | 8.95 | 9.91 | 84.25 | 9.88 | 5.87 |
| 16 | Ramgarh | 80.34 | 5.88 | 13.78 | 71.70 | 6.59 | 21.71 |
| 17 | Dumka | 92.36 | 4.71 | 2.94 | 92.02 | 4.86 | 3.12 |
| 18 | Jamtara | 91.84 | 5.95 | 2.21 | 88.91 | 7.59 | 3.50 |
| 19 | Ranchi | 76.83 | 17.83 | 5.34 | 76.91 | 16.33 | 6.76 |
| 20 | Khunti | 92.85 | 4.77 | 2.38 | 94.15 | 4.17 | 1.67 |
| 21 | Gumla | 73.20 | 18.74 | 8.06 | 59.83 | 24.09 | 16.08 |
| 22 | Simdega | 83.63 | 10.98 | 5.39 | 73.57 | 17.11 | 9.31 |
| 23 | Pashchimi Singhbhum | 52.32 | 40.71 | 6.96 | 46.49 | 43.07 | 10.45 |
| 24 | Saraikela-Kharsawan | 72.88 | 21.99 | 5.13 | 60.62 | 30.79 | 8.60 |
| Jharkhand | | 80.65 | 14.12 | 5.14 | 82.12 | 11.04 | 6.83 |

Source: Socio-Economic and Caste Census of India, 2011

Appendix 15.4: District wise SC Households by Source of Monthly Household Income in Jharkhand, 2011

| Sl. No. | Districts | Total SC Households | % SC Households by Income Source | | | | | | |
|------------------|---------------------|---------------------|----------------------------------|----------------------|---|----------------------|---|---------------------------------|-------------|
| | | | Cultivation | Manual Casual Labour | Part-time or Full-Time Domestic Service | Foraging Rag Picking | Non-agricultural Own Account Enterprise | Begging/Charity/Alms collection | Others |
| | All India | 33154070 | 18.4 | 67.3 | 2.2 | 0.3 | 1.1 | 0.4 | 10.4 |
| 1 | Garhwa | 54569 | 18.1 | 71.2 | 3.0 | 0.3 | 0.5 | 0.3 | 6.6 |
| 2 | Chatra | 58497 | 17.1 | 75.9 | 1.6 | 0.2 | 0.1 | 0.2 | 4.9 |
| 3 | Koderma | 14824 | 9.0 | 74.0 | 1.8 | 0.6 | 0.9 | 0.1 | 13.6 |
| 4 | Giridih | 52538 | 9.2 | 76.2 | 1.6 | 0.3 | 0.5 | 0.2 | 12.0 |
| 5 | Deoghar | 30282 | 15.0 | 71.3 | 3.1 | 0.1 | 0.6 | 0.2 | 9.7 |
| 6 | Godda | 22079 | 12.8 | 76.4 | 2.4 | 0.1 | 0.5 | 0.1 | 7.6 |
| 7 | Sahibganj | 12434 | 7.5 | 74.8 | 5.1 | 0.1 | 1.0 | 0.2 | 11.2 |
| 8 | Pakur | 4993 | 15.4 | 69.0 | 4.2 | 0.1 | 1.8 | 0.1 | 9.3 |
| 9 | Dhanbad | 40541 | 3.6 | 67.1 | 2.9 | 0.2 | 0.5 | 0.4 | 25.4 |
| 10 | Bokaro | 45431 | 6.5 | 71.8 | 2.3 | 0.3 | 1.6 | 0.4 | 17.1 |
| 11 | Lohardaga | 3056 | 42.4 | 49.4 | 1.4 | 0.1 | 0.8 | 0.1 | 5.7 |
| 12 | Purbi Singhbhum | 26259 | 11.4 | 43.2 | 20.0 | 3.9 | 3.3 | 0.6 | 17.6 |
| 13 | Palamu | 89051 | 12.2 | 78.8 | 2.0 | 0.2 | 0.3 | 0.4 | 6.1 |
| 14 | Latehar | 29624 | 35.1 | 55.6 | 2.7 | 0.1 | 0.6 | 0.2 | 5.7 |
| 15 | Hazaribagh | 53853 | 13.2 | 73.1 | 2.4 | 0.2 | 0.5 | 0.2 | 10.5 |
| 16 | Ramgarh | 17774 | 7.9 | 59.9 | 2.4 | 0.2 | 1.3 | 0.2 | 28.0 |
| 17 | Dumka | 16057 | 18.8 | 72.6 | 1.4 | 0.1 | 0.2 | 0.3 | 6.6 |
| 18 | Jamtara | 14182 | 17.8 | 73.7 | 1.8 | 0.1 | 0.3 | 0.5 | 5.8 |
| 19 | Ranchi | 16013 | 32.5 | 51.2 | 3.9 | 0.5 | 0.5 | 0.3 | 9.1 |
| 20 | Khunti | 4840 | 48.1 | 37.7 | 4.4 | 0.2 | 0.4 | 0.1 | 9.1 |
| 21 | Gumla | 10427 | 39.9 | 33.9 | 9.3 | 1.8 | 0.9 | 0.2 | 14.1 |
| 22 | Simdega | 11844 | 54.6 | 32.6 | 5.0 | 2.3 | 1.0 | 0.3 | 4.3 |
| 23 | Pashchimi Singhbhum | 15040 | 19.2 | 44.8 | 16.0 | 2.9 | 1.2 | 0.3 | 15.6 |
| 24 | Saraikela-Kharsawan | 9075 | 18.8 | 52.9 | 13.4 | 2.7 | 1.8 | 0.3 | 10.1 |
| Jharkhand | | 653283 | 15.6 | 68.2 | 3.7 | 0.5 | 0.7 | 0.3 | 10.9 |

Source: Socio-Economic and Caste Census of India, 2011

Appendix 15.5: District wise ST Households by Source of Monthly Household Income in Jharkhand, 2011

| Sl. No. | Districts | Total ST Households | % ST Households by Income Source | | | | | | | Others |
|---------|---------------------|---------------------|----------------------------------|----------------------|---|----------------------|---|-----------------------------------|-------------|--------|
| | | | Cultivation | Manual Casual Labour | Part-time or Full-Time Domestic Service | Foraging Rag Picking | Non-agricultural Own Account Enterprise | Begging/ Charity/ Alms collection | | |
| | All India | 19719299 | 37.94 | 51.34 | 1.99 | 0.22 | 0.63 | 0.23 | 7.60 | |
| 1 | Garhwa | 31164 | 37.19 | 55.78 | 3.28 | 0.20 | 0.47 | 0.22 | 2.85 | |
| 2 | Chatra | 7922 | 31.41 | 55.68 | 1.65 | 0.04 | 0.61 | 0.28 | 10.34 | |
| 3 | Koderma | 945 | 6.14 | 73.33 | 0.63 | 2.96 | 0.53 | 0.11 | 16.30 | |
| 4 | Giridih | 41141 | 17.34 | 75.99 | 1.43 | 0.08 | 0.10 | 0.15 | 4.91 | |
| 5 | Deochar | 33142 | 35.31 | 57.38 | 1.89 | 0.07 | 0.15 | 0.08 | 5.11 | |
| 6 | Godda | 55081 | 43.03 | 48.57 | 2.04 | 0.09 | 0.16 | 0.09 | 6.02 | |
| 7 | Sahibganj | 65187 | 43.76 | 46.87 | 2.97 | 0.11 | 0.63 | 0.08 | 5.58 | |
| 8 | Pakur | 78702 | 49.74 | 44.12 | 0.90 | 0.05 | 0.96 | 0.07 | 4.16 | |
| 9 | Dhanbad | 37285 | 15.32 | 68.78 | 2.79 | 0.13 | 0.27 | 0.37 | 12.33 | |
| 10 | Bokaro | 46458 | 16.57 | 64.58 | 2.59 | 0.12 | 2.37 | 0.19 | 13.58 | |
| 11 | Lohardaga | 48460 | 64.18 | 30.33 | 1.31 | 0.08 | 0.27 | 0.12 | 3.70 | |
| 12 | Purbi Singhbhum | 126107 | 27.35 | 49.61 | 10.18 | 0.44 | 0.76 | 0.15 | 11.51 | |
| 13 | Palamu | 30543 | 30.54 | 54.94 | 5.26 | 2.23 | 0.26 | 0.17 | 6.60 | |
| 14 | Latehar | 60141 | 51.60 | 36.38 | 2.79 | 0.09 | 0.58 | 0.11 | 8.45 | |
| 15 | Hazaribagh | 21033 | 28.68 | 55.46 | 2.49 | 0.13 | 0.36 | 0.11 | 12.76 | |
| 16 | Ramgarh | 36613 | 18.95 | 60.51 | 2.41 | 0.06 | 0.82 | 0.15 | 17.09 | |
| 17 | Dumka | 121357 | 45.26 | 48.49 | 1.23 | 0.07 | 0.17 | 0.12 | 4.66 | |
| 18 | Jamtara | 45259 | 46.21 | 48.28 | 1.64 | 0.05 | 0.10 | 0.14 | 3.57 | |
| 19 | Ranchi | 133072 | 46.75 | 41.50 | 2.73 | 0.33 | 0.52 | 0.18 | 7.00 | |
| 20 | Khunti | 71400 | 66.85 | 24.98 | 3.02 | 0.21 | 0.61 | 0.08 | 4.24 | |
| 21 | Gumla | 99915 | 63.04 | 20.00 | 6.05 | 1.24 | 1.12 | 0.32 | 8.23 | |
| 22 | Simdega | 72374 | 74.75 | 15.83 | 3.21 | 0.94 | 0.53 | 0.44 | 4.31 | |
| 23 | Pashchimi Singhbhum | 154862 | 28.06 | 51.38 | 9.66 | 2.17 | 0.78 | 0.23 | 7.72 | |
| 24 | Saraikela-Kharsawan | 50474 | 43.42 | 42.15 | 5.50 | 0.57 | 1.59 | 0.11 | 6.67 | |
| | Jharkhand | 1468637 | 42.55 | 44.68 | 4.13 | 0.55 | 0.65 | 0.18 | 7.17 | |

Source: Socio-Economic and Caste Census of India, 2011

Appendix 15.6: District wise Deprivation Situation among SC Households in Jharkhand, 2011

| Sl. No. | Districts | Total SC Households | % of Deprived SC Households with deprivation criteria | | | |
|------------------|---------------------|---------------------|---|--------------------------------------|----------------------------------|---|
| | | | Only one room with kucha walls and kucha roof | No adult member between age 16 to 59 | No literate adult above 25 years | Landless households deriving major part of their income from manual casual labour |
| | All India | 33154070 | 17.24 | 4.17 | 31.15 | 45.17 |
| 1 | Garhwa | 54569 | 23.07 | 5.57 | 46.79 | 24.39 |
| 2 | Chatra | 58497 | 27.35 | 3.30 | 60.23 | 38.90 |
| 3 | Kodarma | 14824 | 16.21 | 2.18 | 37.17 | 32.12 |
| 4 | Giridih | 52538 | 16.78 | 1.98 | 38.13 | 25.28 |
| 5 | Deoghar | 30282 | 16.56 | 2.90 | 43.21 | 23.76 |
| 6 | Godda | 22079 | 26.78 | 3.02 | 47.16 | 46.36 |
| 7 | Sahibganj | 12434 | 28.73 | 2.48 | 50.76 | 58.82 |
| 8 | Pakur | 4993 | 31.52 | 2.50 | 53.03 | 50.71 |
| 9 | Dhanbad | 40541 | 12.13 | 1.33 | 29.15 | 35.96 |
| 10 | Bokaro | 45431 | 17.96 | 2.28 | 33.79 | 27.68 |
| 11 | Lohardaga | 3056 | 9.91 | 4.06 | 35.70 | 17.93 |
| 12 | Purbi Singhbhum | 26259 | 8.17 | 1.95 | 14.01 | 20.58 |
| 13 | Palamu | 89051 | 29.15 | 3.97 | 51.20 | 36.56 |
| 14 | Latehar | 29624 | 22.69 | 3.44 | 56.71 | 19.41 |
| 15 | Hazaribagh | 53853 | 16.29 | 2.47 | 40.05 | 27.00 |
| 16 | Ramgarh | 17774 | 7.40 | 1.68 | 28.73 | 28.19 |
| 17 | Dumka | 16057 | 23.76 | 3.24 | 39.96 | 29.63 |
| 18 | Jamtara | 14182 | 23.78 | 2.45 | 41.71 | 34.18 |
| 19 | Ranchi | 16013 | 11.20 | 3.51 | 29.77 | 19.95 |
| 20 | Khunti | 4840 | 16.53 | 3.86 | 34.32 | 19.65 |
| 21 | Gumla | 10427 | 7.97 | 3.16 | 20.73 | 15.87 |
| 22 | Simdega | 11844 | 10.42 | 4.45 | 33.07 | 15.26 |
| 23 | Pashchimi Singhbhum | 15040 | 4.86 | 1.52 | 9.60 | 17.46 |
| 24 | Saraikela-Kharsawan | 9075 | 15.88 | 2.94 | 21.94 | 24.99 |
| Jharkhand | | 653283 | 19.62 | 3.01 | 41.03 | 29.77 |

Source: Socio-Economic and Caste Census of India, 2011

Appendix 15.7: District wise Deprivation Situation among ST Households in Jharkhand, 2011

| Sl. No. | Districts | Total ST Households | % of Deprived ST Households with deprivation criteria | | | |
|---------|---------------------|---------------------|---|--------------------------------------|----------------------------------|---|
| | | | Only one room with kucha walls and kucha roof | No adult member between age 16 to 59 | No literate adult above 25 years | Landless households deriving major part of their income from manual casual labour |
| | All India | 19719299 | 22.12 | 3.74 | 39.29 | 29.82 |
| 1 | Garhwa | 31164 | 16.20 | 4.88 | 40.53 | 10.37 |
| 2 | Chatra | 7922 | 17.42 | 1.70 | 39.43 | 10.19 |
| 3 | Kodarma | 945 | 26.35 | 2.12 | 50.16 | 40.32 |
| 4 | Giridih | 41141 | 19.51 | 2.06 | 52.26 | 12.20 |
| 5 | Deoghar | 33142 | 17.15 | 2.40 | 43.63 | 8.60 |
| 6 | Godda | 55081 | 18.34 | 2.60 | 47.07 | 16.97 |
| 7 | Sahibganj | 65187 | 30.16 | 2.30 | 52.64 | 18.77 |
| 8 | Pakur | 78702 | 32.96 | 1.78 | 53.37 | 15.11 |
| 9 | Dhanbad | 37285 | 17.06 | 1.70 | 35.75 | 15.42 |
| 10 | Bokaro | 46458 | 17.29 | 2.01 | 38.10 | 12.09 |
| 11 | Lohardaga | 48460 | 7.41 | 2.85 | 34.33 | 6.36 |
| 12 | Purbi Singhbhum | 126107 | 13.95 | 2.15 | 27.35 | 20.12 |
| 13 | Palamu | 30543 | 19.81 | 2.62 | 35.48 | 10.21 |
| 14 | Latehar | 60141 | 14.46 | 2.89 | 39.41 | 6.70 |
| 15 | Hazaribagh | 21033 | 13.57 | 1.86 | 41.28 | 10.37 |
| 16 | Ramgarh | 36613 | 8.96 | 2.11 | 34.78 | 14.37 |
| 17 | Dumka | 121357 | 24.53 | 2.76 | 39.35 | 9.32 |
| 18 | Jamtara | 45259 | 21.53 | 2.64 | 42.00 | 8.29 |
| 19 | Ranchi | 133072 | 8.90 | 2.49 | 25.96 | 12.12 |
| 20 | Khunti | 71400 | 17.13 | 3.57 | 31.20 | 5.83 |
| 21 | Gumla | 99915 | 12.23 | 2.72 | 26.20 | 4.66 |
| 22 | Simdega | 72374 | 8.49 | 3.43 | 25.58 | 6.24 |
| 23 | Pashchimi Singhbhum | 154862 | 6.06 | 1.81 | 15.93 | 27.44 |
| 24 | Saraikela-Kharsawan | 50474 | 15.76 | 2.38 | 25.92 | 13.94 |
| | Jharkhand | 1468637 | 15.79 | 2.49 | 33.95 | 13.23 |

Source: Socio-Economic and Caste Census of India, 2011

Appendix 15.8: District wise Asset and income Situation among SC Households in Jharkhand, 2011

| Sl. No. | Districts | Total SC Households | % SC Households with Asset and income Situation | | | | | |
|---------|---------------------|---------------------|--|---|---|---|------------------------------|--|
| | | | Households owning motorized two/three/ four wheelers/fishing boats | Households having kisan credit card with the credit limit of Rs. 50,000 and above | Households with any member as government employee | Households with any member earning more than Rs. 10,000 p.m | Households paying income tax | |
| | All India | 33154070 | 12.62 | 1.75 | 3.95 | 4.67 | 3.49 | |
| 1 | Garhwa | 54569 | 7.38 | 1.49 | 3.12 | 3.29 | 2.07 | |
| 2 | Chatra | 58497 | 4.30 | 0.82 | 1.51 | 2.18 | 1.62 | |
| 3 | Kodarma | 14824 | 9.04 | 2.19 | 6.09 | 5.67 | 3.94 | |
| 4 | Giridih | 52538 | 9.29 | 0.81 | 7.78 | 7.21 | 5.47 | |
| 5 | Deoghar | 30282 | 6.36 | 1.10 | 3.53 | 3.20 | 2.44 | |
| 6 | Godda | 22079 | 7.82 | 1.38 | 3.56 | 4.03 | 2.41 | |
| 7 | Sahibganj | 12434 | 4.58 | 0.85 | 3.02 | 3.18 | 2.24 | |
| 8 | Pakur | 4993 | 4.75 | 0.62 | 2.76 | 2.44 | 1.54 | |
| 9 | Dhanbad | 40541 | 19.32 | 0.77 | 14.23 | 17.08 | 16.62 | |
| 10 | Bokaro | 45431 | 15.87 | 0.51 | 9.55 | 10.63 | 9.54 | |
| 11 | Lohardaga | 3056 | 8.90 | 2.29 | 3.08 | 2.59 | 2.45 | |
| 12 | Purbi Singhbhum | 26259 | 50.91 | 4.31 | 2.93 | 12.88 | 3.90 | |
| 13 | Palamu | 89051 | 6.97 | 1.56 | 4.03 | 5.07 | 2.87 | |
| 14 | Latehar | 29624 | 3.89 | 0.85 | 1.87 | 1.76 | 1.27 | |
| 15 | Hazaribagh | 53853 | 9.07 | 0.78 | 4.60 | 5.87 | 4.30 | |
| 16 | Ramgarh | 17774 | 21.58 | 0.67 | 13.65 | 21.71 | 21.22 | |
| 17 | Dumka | 16057 | 5.99 | 1.63 | 3.92 | 3.12 | 1.95 | |
| 18 | Jamtara | 14182 | 8.31 | 0.94 | 4.37 | 3.50 | 3.22 | |
| 19 | Ranchi | 16013 | 20.16 | 3.69 | 4.86 | 6.76 | 6.15 | |
| 20 | Khunti | 4840 | 5.21 | 0.91 | 2.98 | 1.67 | 1.28 | |
| 21 | Gumla | 10427 | 34.46 | 1.13 | 1.54 | 16.08 | 1.05 | |
| 22 | Simdega | 11844 | 14.94 | 1.78 | 1.65 | 9.31 | 1.49 | |
| 23 | Pashchimi Singhbhum | 15040 | 48.66 | 4.63 | 2.87 | 10.45 | 6.35 | |
| 24 | Saraikela-Kharsawan | 9075 | 29.98 | 4.03 | 2.70 | 8.60 | 2.37 | |
| | Jharkhand | 653283 | 12.71 | 1.40 | 5.08 | 6.83 | 4.84 | |

Source: Socio-Economic and Caste Census of India, 2011

Appendix 15.9: District wise Asset and income Situation among ST Households in Jharkhand, 2011

| Sl. No. | Districts | Total ST Households | % ST Households with Asset and income Situation | | | | | Households with any member earning more than Rs. 10,000 p.m | Households paying income tax |
|---------|---------------------|---------------------|--|---|---|---|---|---|------------------------------|
| | | | Households owning motorized two/three/ four wheelers/fishing boats | Households having kisan credit card with the credit limit of Rs. 50,000 and above | Households with any member as government employee | Households with any member earning more than Rs. 10,000 p.m | Households with any member earning more than Rs. 10,000 p.m | | |
| | All India | 19719299 | 9.89 | 1.65 | 4.37 | 4.48 | 3.35 | | |
| 1 | Garhwa | 31164 | 6.73 | 1.61 | 2.08 | 1.79 | 0.96 | | |
| 2 | Chatra | 7922 | 8.94 | 0.87 | 5.04 | 7.38 | 6.13 | | |
| 3 | Kodarma | 945 | 6.24 | 3.07 | 6.77 | 6.77 | 4.87 | | |
| 4 | Giridih | 41141 | 5.64 | 0.73 | 2.41 | 2.18 | 1.53 | | |
| 5 | Deochar | 33142 | 6.01 | 1.05 | 3.01 | 2.94 | 2.31 | | |
| 6 | Godda | 55081 | 9.83 | 1.65 | 3.27 | 3.41 | 2.55 | | |
| 7 | Sahibganj | 65187 | 3.74 | 2.03 | 2.36 | 2.93 | 1.73 | | |
| 8 | Pakur | 78702 | 3.41 | 0.77 | 1.72 | 1.51 | 1.08 | | |
| 9 | Dhanbad | 37285 | 13.76 | 1.08 | 7.78 | 8.58 | 8.02 | | |
| 10 | Bokaro | 46458 | 17.52 | 0.81 | 7.02 | 9.19 | 7.20 | | |
| 11 | Lohardaga | 48460 | 8.80 | 2.62 | 4.27 | 3.91 | 3.69 | | |
| 12 | Purbi Singhbhum | 126107 | 28.40 | 1.74 | 2.83 | 6.53 | 3.35 | | |
| 13 | Palamu | 30543 | 15.57 | 2.01 | 4.59 | 6.22 | 3.17 | | |
| 14 | Latehar | 60141 | 4.85 | 1.11 | 3.53 | 3.53 | 2.33 | | |
| 15 | Hazaribagh | 21033 | 14.46 | 0.71 | 6.11 | 9.91 | 8.51 | | |
| 16 | Ramgarh | 36613 | 17.57 | 0.99 | 9.10 | 13.78 | 13.47 | | |
| 17 | Dumka | 121357 | 6.26 | 0.64 | 3.69 | 2.94 | 2.11 | | |
| 18 | Jamtara | 45259 | 6.85 | 0.92 | 2.98 | 2.21 | 2.38 | | |
| 19 | Ranchi | 133072 | 19.19 | 2.05 | 4.21 | 5.34 | 4.23 | | |
| 20 | Khunti | 71400 | 5.92 | 1.31 | 2.96 | 2.38 | 1.99 | | |
| 21 | Gumla | 99915 | 22.42 | 2.03 | 4.75 | 8.06 | 3.27 | | |
| 22 | Simdega | 72374 | 12.65 | 1.25 | 2.70 | 5.39 | 2.16 | | |
| 23 | Pashchimi Singhbhum | 154862 | 30.05 | 4.42 | 1.23 | 6.96 | 2.87 | | |
| 24 | Saraikela-Kharsawan | 50474 | 26.68 | 2.67 | 2.60 | 5.13 | 3.04 | | |
| | Jharkhand | 1468637 | 14.99 | 1.78 | 3.49 | 5.14 | 3.31 | | |

Source: Socio-Economic and Caste Census of India, 2011

Appendix 16.1: Forest Cover in 2013 and 2015 (sq.km)

| Districts | FOREST COVER (sq.km) 2013 | | | | FOREST COVER (sq.km) 2015 | | | |
|--------------------|---------------------------|----------------|--------------|--------------|---------------------------|----------------|--------------|--------------|
| | Very Dense | Moderate Dense | Open | Total Forest | Very Dense | Moderate Dense | Open | Total Forest |
| Bokaro | 60 | 232 | 273 | 565 | 61 | 231 | 273 | 565 |
| Chatra | 250 | 868 | 662 | 1780 | 250 | 869 | 662 | 1781 |
| Deoghar | 0 | 14 | 189 | 203 | 0 | 14 | 190 | 204 |
| Dhanbad | 0 | 44 | 158 | 202 | 0 | 44 | 158 | 202 |
| Dumka | 0 | 279 | 384 | 663 | 0 | 277 | 383 | 660 |
| Garhwa | 124 | 411 | 855 | 1390 | 124 | 409 | 859 | 1392 |
| Giridih | 77 | 339 | 469 | 885 | 76 | 337 | 465 | 878 |
| Godda | 13 | 268 | 127 | 408 | 14 | 269 | 129 | 412 |
| Gumla | 323 | 916 | 1419 | 2658 | 323 | 921 | 1417 | 2661 |
| Hazaribagh | 271 | 632 | 1185 | 2088 | 271 | 632 | 1190 | 2093 |
| Koderma | 68 | 321 | 209 | 598 | 68 | 321 | 209 | 598 |
| Lohardaga | 173 | 217 | 109 | 499 | 173 | 217 | 109 | 499 |
| Pakur | 3 | 174 | 111 | 288 | 3 | 173 | 111 | 287 |
| Palamu | 531 | 1826 | 1229 | 3586 | 533 | 1824 | 1237 | 3594 |
| Paschimi Singhbhum | 484 | 1560 | 1870 | 3914 | 483 | 1558 | 1871 | 3912 |
| Purbi Singhbhum | 52 | 587 | 430 | 1069 | 52 | 589 | 429 | 1070 |
| Ranchi | 139 | 712 | 1233 | 2084 | 138 | 712 | 1226 | 2076 |
| Sahibganj | 19 | 267 | 307 | 593 | 19 | 266 | 309 | 594 |
| Jharkhand | 2587 | 9667 | 11219 | 23473 | 2588 | 9663 | 11227 | 23478 |

Source: Annual Report, 2016-17, Department of Forest, Environment and Climate Change, Government of Jharkhand

Appendix 16.2: Ground Water Resources Availability, Utilization and Stage of Development

| Districts | Annual Replenishable Ground Water Resource | | | | | | Natural Discharge during non-monsoon season | Net Annual Ground Water Availability | Annual Ground Water Draft | | | Projected Demand for Domestic and Industrial uses upto 2025 | Ground Water Availability for future irrigation | Stage of Ground Water Development (%) |
|-----------------------|--|-----------------------------|------------------------|-----------------------------|------------------------------------|--------------|---|--------------------------------------|------------------------------|---------------|--------------|---|---|---------------------------------------|
| | Monsoon Season | | Non-Monsoon Season | | Total Annual Ground Water Recharge | Irrigation | | | Domestic And Industrial uses | Total | | | | |
| | Recharge from rainfall | Recharge from other sources | Recharge from rainfall | Recharge from other sources | | | | | | | | | | |
| Bokaro | 23033.61 | 475.88 | 2325.32 | 898.61 | 26733.42 | 2014.94 | 24718.48 | 2380.5 | 9080.91 | 11461.41 | 1155 | 21182.98 | 46 | |
| Chatra | 28610.09 | 496.15 | 2540.35 | 1640.19 | 33286.78 | 2902.66 | 30384.12 | 7463.5 | 2205.34 | 9668.84 | 620 | 22300.62 | 32 | |
| Deoghar | 19926.15 | 158.65 | 2346.91 | 531.17 | 22962.88 | 2296.29 | 20666.59 | 2426.63 | 2001.22 | 4427.84 | 767 | 17472.97 | 21 | |
| Dhanbad | 16128.37 | 1739.4 | 1761.93 | 2301.36 | 21931.06 | 1960.68 | 19970.38 | 1765.5 | 13544.34 | 15309.84 | 926 | 17278.88 | 77 | |
| Dumka | 27924.48 | 391.56 | 3058.53 | 1550.19 | 32924.76 | 2770.44 | 30154.32 | 7693.75 | 1944.69 | 9638.44 | 781 | 21679.57 | 32 | |
| East Singhbhum | 28503.59 | 87.93 | 3934.6 | 343.99 | 32870.11 | 3287.01 | 29583.1 | 1692.75 | 4126.01 | 5818.76 | 864 | 27026.35 | 20 | |
| Garhwa | 30034.94 | 92.52 | 1427.38 | 346.81 | 31901.65 | 2963.32 | 28938.33 | 1651.38 | 1859.83 | 3511.20 | 786 | 26500.95 | 12 | |
| Giridih | 41502.81 | 174.01 | 4190.74 | 587.42 | 46454.98 | 4123.13 | 42331.85 | 2689.88 | 4302.72 | 6992.59 | 1447 | 38194.98 | 17 | |
| Godda | 21479.69 | 128.34 | 3431.87 | 360.92 | 25400.82 | 2427.08 | 22973.74 | 1471.25 | 2215.91 | 3687.16 | 785 | 20717.49 | 16 | |
| Gumla | 42355.94 | 237.7 | 8263.99 | 933.27 | 51790.9 | 4423.19 | 47367.71 | 4603.5 | 1480.94 | 6084.44 | 608 | 42156.21 | 13 | |
| Hazaribagh | 31664.94 | 153.6 | 4894.67 | 310.15 | 37023.36 | 2798.58 | 34224.78 | 885.38 | 3495.21 | 4380.59 | 994 | 32345.41 | 13 | |
| Jamtara | 10023.11 | 108.2 | 921.02 | 426.85 | 11479.18 | 751.44 | 10727.74 | 2112.75 | 1078.3 | 3191.05 | 449 | 8165.99 | 30 | |
| Khunti | 13954.06 | 145.1 | 2400.76 | 568.5 | 17068.42 | 1206.48 | 15861.94 | 2799.75 | 761.41 | 3561.16 | 309 | 12753.19 | 22 | |
| Koderma | 8563.23 | 74.21 | 785.75 | 295.46 | 9718.65 | 782.69 | 8935.96 | 1472.63 | 1004.94 | 2477.56 | 376 | 7087.34 | 28 | |
| Latehar | 19745.68 | 147.21 | 3496.32 | 516.69 | 23905.9 | 1577.79 | 22328.11 | 2396.5 | 1229.67 | 3626.17 | 438 | 19493.61 | 16 | |
| Lohardaga | 17069.5 | 65.69 | 2740.37 | 253.8 | 20129.36 | 1852.27 | 18277.09 | 1237 | 590.39 | 1827.39 | 254 | 16786.09 | 10 | |
| Pakur | 11393.35 | 69.17 | 2730.41 | 268.01 | 14460.94 | 1355.97 | 13104.97 | 1309.5 | 1346.71 | 2656.21 | 531 | 11264.47 | 20 | |
| Palamau | 32472.24 | 259.01 | 2526.07 | 972.7 | 36230.02 | 3095.94 | 33134.08 | 4708.5 | 3033.59 | 7742.09 | 1116 | 27309.58 | 23 | |
| Ramgarh | 9342.66 | 529.18 | 1135.12 | 783.81 | 11790.77 | 1128.96 | 10661.81 | 1126.75 | 5634.02 | 6760.77 | 543 | 8992.06 | 63 | |
| Ranchi | 36157.48 | 395.36 | 6041.71 | 1321.18 | 43915.73 | 3601.51 | 40314.22 | 6027.38 | 4709.36 | 10736.73 | 1135 | 33151.84 | 27 | |
| Sahebganj | 22760.58 | 81.3 | 2846.52 | 312.93 | 26001.33 | 2408.84 | 23592.49 | 1521 | 1733.21 | 3254.21 | 647 | 21424.49 | 14 | |
| Saraikela - Kharsawan | 12405.86 | 41.86 | 1118.43 | 157.64 | 13723.79 | 1372.38 | 12351.41 | 753 | 1735.57 | 2488.57 | 547 | 11051.41 | 20 | |
| Simdega | 27209.61 | 109.12 | 4375.94 | 422.64 | 32117.31 | 2793.29 | 29324.02 | 2064.5 | 812.69 | 2877.19 | 347 | 26912.52 | 10 | |
| West Singhbhum | 28338.38 | 35.64 | 3774.44 | 123.53 | 32271.99 | 3047.25 | 29224.74 | 550.5 | 2412.4 | 2962.90 | 860 | 27814.24 | 10 | |
| Total (ham) | 560600 | 6196.79 | 73069.15 | 16228 | 656094 | 56942 | 599152 | 62804 | 72339 | 135143 | 17285 | 519063 | 23 | |
| Total (bcm) | 5.61 | 0.06 | 0.73 | 0.16 | 6.56 | 0.57 | 5.99 | 0.63 | 0.72 | 1.35 | 0.17 | 5.19 | 23 | |

Source: Annual Report, 2016-17, Department of Forest, Environment and Climate Change, Government of Jharkhand

Appendix 17.1: Assets of Tourism Division

| Sl. No. | Name of the Assets | District |
|---------|--|-----------------------------|
| 1 | Way side Amenity, Chas more | Bokaro |
| 2 | Community Centre Building, Tourist Convenience Complex, Kitchen shed, Dhorimata Mariyam, Fusro | Bokaro |
| 3 | Tourist Information Centre, Bokaro | Bokaro |
| 4 | Bazaar complex, Deoghar | Deoghar |
| 5 | Tourist complex, Rikhiya | Deoghar |
| 6 | Way side Amenity, Madhupur | Deoghar |
| 7 | Way side amenity, Trikut | Deoghar |
| 8 | Tourist Information Center, Deoghar | Deoghar |
| 9 | Trikut rope way | Deoghar |
| 10 | Light & Sound show, Shilpgram | Deoghar |
| 11 | Multipurpose hall, Budhai Temple, Madhupur | Deoghar |
| 12 | Multipurpose hall, Pathrol Temple, Madhupur | Deoghar |
| 13 | Bazaar complex, Dhanbad | Dhanbad |
| 14 | Tourist complex, Masanjor | Dumka |
| 15 | Tourist complex, Maluti | Dumka |
| 16 | Tourist complex, Ghatshila | East Singhbhum |
| 17 | Tourist complex, Sakchi vihar, Jamshedpur | East Singhbhum |
| 18 | Tourist Information Center Jamshedpur | East Singhbhum |
| 19 | Rural tourism centre – Amadubi | East Singhbhum |
| 20 | Children park, Sidgora | East Singhbhum (Jamshedpur) |
| 21 | Tourist complex, Godarmana | Garhwa |
| 22 | Way side Amenity, Bagodar | Giridih |
| 23 | Tourist Information Center Madhuban | Giridih |
| 24 | Multipurpose hall, Harihardham | Giridih |
| 25 | Multipurpose hall, Yogani sthan | Godda |
| 26 | Multipurpose hall, Shivpur, Ratneshwar Dham | Godda |
| 27 | Multipurpose hall, Dhamsaye temple | Godda |
| 28 | Tourist complex, Gumla | Gumla |
| 29 | Way side amenity Manjha Toli | Gumla |
| 30 | Restaurant-cum-hall, Palkot | Gumla |
| 31 | Way side amenity Tatijharia | Hazaribagh |
| 32 | Tourist Information Center Hazaribagh | Hazaribagh |
| 33 | Tourist complex, Baridih | Jamshedpur |
| 34 | Way side Amenity, Haata chowk, Jamshedpur | Jamshedpur |
| 35 | Sanskar Bhawan Amreshwar Dham, Khunti | Khunti |
| 36 | Hotel and Restaurant, Urwan | Koderma |
| 37 | Tourist complex (Food court, Healthy club, Cottage, etc) | Koderma |
| 38 | Hotel Van vihar, Betla tourist house (Dormitory) | Latehar |
| 39 | Hotel Prabhaag vihar, Netarhat | Latehar |
| 40 | Tourist plaza, Betla | Latehar |
| 41 | Jungle haat, Betla | Latehar |
| 42 | Way side amenity, Chandawa | Latehar |
| 43 | Way side amenity bhawan, Chandawa | Latehar |
| 44 | Way side amenity Maheshpur | Pakur |

| Sl. No. | Name of the Assets | District |
|---------|---|---------------------|
| 45 | Tourist complex, Palamu | Palamu |
| 46 | Tourist Information Centre, Daltonganj | Palamu |
| 47 | Vivah Mandap & Tourist Lodge, Chougonadham, Chhatterpur | Palamu |
| 48 | Tourist complex, Rajrappa | Ramgarh |
| 49 | Administrative Building and hospice, Rajrappa | Ramgarh |
| 50 | Shopping Complex & Restaurant etc. at Rajrappa | Ramgarh |
| 51 | Hotel Birsa vihar, Ranchi | Ranchi |
| 52 | Bazaar complex, Ranchi | Ranchi |
| 53 | Hundru tourist complex (Total area) | Ranchi |
| 54 | Tourist place, Hatia | Ranchi |
| 55 | Way side Amenity, Aaram Tamar | Ranchi |
| 56 | Tourist Information Centre, Meluskiegunj | Ranchi |
| 57 | Kanke Dam Tourist place (Total area) | Ranchi |
| 58 | Children play zone, Dasham waterfall | Ranchi |
| 59 | Children play zone, Jonha waterfall | Ranchi |
| 60 | Children play zone, Hundru waterfall | Ranchi |
| 61 | Light & Sound Show, Kanke Dam | Ranchi |
| 62 | Tourist Information Centre, Rajmahal | Sahebganj |
| 63 | Sanskar Bhawan, Barhet | Sahebganj |
| 64 | Ganga Bhawan, Rajmahal | Sahebganj |
| 65 | Kiosk near Sitarampur dam and Children Play Zone | Saraikela-Kharsawan |
| 66 | Children Play Zone, Kudarsai | Saraikela-Kharsawan |
| 67 | Tourist complex, Ramrekhadham | Simdega |
| 68 | Sanskar Bhawan with restaurant | Simdega |
| 69 | Tourist complex, Hesadih | West Singhbhum |
| 70 | Way side Amenity, Kandra | West Singhbhum |

Source: Tourism, Arts, Culture, Sports and Youth Affairs Department report, Jharkhand Government

