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SCHEDULED TRIBES HUMAN DEVELOPMENT REPORT 2025

SCHEDULED TRIBES
HUMAN DEVELOPMENT REPORT
2025

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PREFACE AND ACKNOWLEDGEMENTS

Tribal communities are among the most deprived groups in India. The Constitution of India recognized them as Scheduled Tribes and made special provisions to secure their welfare and development. Along with affirmative action in public education and employment, a number of policies have been adopted for the development of the Scheduled Tribes. While many of policies and programmes have certainly contributed to their progress and wellbeing, STs still lag behind the other communities in various spheres of life. This Human Development Report is first of its kind which comprehensively documents the progress made by tribal communities. It analyses the gaps and challenges in their development outcomes. It also flags policy directions which can be deliberated by the government and other stakeholders for inclusive human development of the Scheduled Tribe communities.

We are very thankful to the Ministry of Tribal Affairs for providing financial support to this important study to the Institute for Human Development (IHD). In particular, immense thanks are due to Shri Anil Kumar Jha, IAS and Shri Deepak Khandekar, IAS, former Secretaries of MoTA, for their support and encouragement. Dr. Naval Jit Kapoor, Additional Secretary provided his all support at every stage of the work, and we express our deep appreciation to him. We are also thankful to other officials of MoTA for their support and help. The comments received from MoTA on the draft report were very useful in the finalization of the report.

The successful completion of this Report has been possible because of contributions by several scholars from IHD. Dr. Dev Nathan as principal author and general editor coordinated this exercise as well as contributed chapters on gender, governance and North-east, apart from contributing to various other chapters. Dr. Sarthi Acharya has immensely contributed to this report. He has contributed to the chapter on human development indicators, including calculating the HDI, apart the Introduction (with Dev Nathan) and chapters on health (with Dr. Swati Dutta and Dr. Sunil Kumar Mishra) and livelihoods (with Dr. Balwant Mehta), Dr. Bhim Reddy contributed a chapter on PVTGs, designed instruments for the primary survey, and reviewed the whole draft, edited and finalised the Report. Dr. Tanuka Endow contributed the chapter on education and gave valuable comments on the draft. Dr. Shreerajan, apart from contributing to the chapters on governance and STs of the North-east, also commented on the draft. Dr. Gerry Rodgers (Visiting Professor, IHD) and Ms. Janine Rodgers (Senior Visiting Fellow, IHD) gave valuable comments on some specific chapters. Dr. Tanushree Kundu and Dr. Prashant Arya contributed a chapter on infrastructure. Dr. Arya also made maps for the Report. Dr. Kundu meticulously checked the whole manuscript, including tables and statistical appendices, and helped in finalizing the Report. A rich data base on Scheduled Tribes has been created which forms the Statistical Annexure. It is prepared by Dr. Balwant Singh Mehta, Sunil Kumar Mishra and Dr. Tanushree Kundu with assistance from Dr. Swati Dutta, Dr. Deeksha Tayal and Mr. Rahul Ranjan. Dr. G.C. Manna reviewed the whole Report, particularly the statistics and tables used in the Report as well as guided the exercise of preparation of Statistical Annexure. Mr. Vikas Dubey has assisted in compiling primary data as well as secondary data for specific chapters.

A group of well-known scholars have peer reviewed the Report. They included (late) Professor Vinay Srivastava (former Director of Anthropological Survey of India and Professor at Delhi University), Professor P. Venkata Rao (University of Hyderabad), Professor Virginius Xaxa (formerly of Delhi University and Tata Institute of Social Sciences) and Dr. A.K. Shiva Kumar (Development Economist). Dr. Shiva Kumar also contributed to the Executive Summary of the Report and participated in a number of discussion meetings on the preparation of the Report (including commenting on the methodology of preparing HDI). Dr. Sandhya Iyer (TISS) helped in finalizing the methodology of calculation of HDI. Dr. Govind Kelkar (Gen Centre) made useful comments on the gender chapter. Dr. Koteswara Rao K (NIT, Raurkela) and Dr. Apparao Tamminaina (University of Hyderabad) have made valuable suggestions to the chapter on PVTGs.

IHD had organized an Inception Workshop to discuss the broad scope and methodology of the Report. A Review Workshop was organized to discuss the draft report. A number of experts and stakeholders from various parts of the country working on tribal issues participated in the two workshops and provided valuable comments. We would like to thank Prof. Ramesh Sharan (Vinobha Bhave University), Prof. P C Joshi (Delhi University), Dr. Bangya Bhukya (University of Hyderabad), Dr. Anil Kumar (IGNOU) and many other experts for sharing their insights and commenting on the report structure and contents.

We thank field investigators and researchers involved in the primary field study which complemented secondary data analysis for this report, and especially Mr. B K N Singh, Mr. Ayesha Saxena and Mr. Dhiraj Kumar for leading this field survey. We are immensely grateful to the respondents who participated in the survey and shared their views, experiences and their time.

We hope that the Report will be useful to all those involved with analysis and policy making on tribal communities in India.

20 November 2025
New Delhi

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ABBREVIATIONS

ADB	Asian Development Bank
ADC	Autonomous District Council
AEP	Act East Policy
AISHE	All India Survey on Higher Education
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
AnSI	Anthropological Survey of India
ASAR	Age-Specific Attendance Ratio
ASHA	Accredited Social Health Activist
BDA	Biological Diversity Act
BIMARU	Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh
BMI	Body Mass Index
CAGR	Compounded Annual Growth Rate
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CCD	Conservation-cum-Development
CFM	Community Forest Management
CFR	Community Forest Rights
CIFOR	International Centre for Forestry Research
CL	Casual Labour
COVID-19	Coronavirus Disease 2019
CSR	Corporate Social Responsibility
CVDs	Cardiovascular Diseases
EMRS	Ekalavya Model Residential School
EUS	Employment–Unemployment Survey
FAO	Food and Agriculture Organization
FHTC	Functional Household Tap Connection
FPIC	Free, Prior and Informed Consent
FRA	Forest Rights Act

G-6-PD	Glucose-6-Phosphate Dehydrogenase
GCC	Girijan Cooperative Corporation
GDP	Gross Domestic Product
GEI	Gender Equality Index
GER	Gross Enrolment Ratio
GoI	Government of India
GSDP	Gross State Domestic Product
GSVA	Gross State Value Added
GVA	Gross Value Added
HDI	Human Development Index
HGNSJ	Har Ghar Nal Se Jal
HMIS	Health Management Information System
HYV	High Yield Variety
ICDS	Integrated Child Development Services
ICT	Information and Communication Technology
IHD	Institute for Human Development
IHHL	Individual Household Latrines
IIT	Indian Institute of Technology
IMR	Infant Mortality Rate
ITDA	Integrated Tribal Development Agencies
ITDP	Integrated Tribal Development Project
ITES	Information Technology–Enabled Services
ITK	Indigenous Technical Knowledge
JJM	Jal Jeevan Mission
LBW	Low Birthweight
LPG	Liquefied Petroleum Gas
LWE	Left Wing Extremism
MADA	Modified Area Development Approach
MCH	Maternal and Child Health
MPCI	Monthly Per Capita Income
MFP	Minor Forest Produce
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIS	Management Information System
MLE	Multi-lingual Education
MMR	Maternal Mortality Rate
MoHFW	Ministry of Health and Family Welfare
MoTA	Ministry of Tribal Affairs
MPCE	Monthly Per Capita Consumption Expenditure
MPI	Multi-dimensional Poverty Index
MSP	Minimum Support Price
NAS	National Achievement Survey
NCAER	National Council of Applied Economic Research
NCDs	Non-Communicable Diseases

NCERT	National Council of Educational Research and Training
NCRB	National Crime Records Bureau
NEP	National Education Policy
NER	Net Enrolment Ratio
NGO	Non-Governmental Organization
NHFS	National Family Health Survey
NHM	National Health Mission
NMR	Neonatal Mortality Rate
NMRC	National Multilingual Resource Consortium
NRDWP	National Rural Drinking Water Programme
NSS	National Sample Survey
NSSO	National Sample Survey Office
NSTFDC	National Scheduled Tribes Finance and Development Corporation
NTFPs	Non-timber Forest Products
OBCs	Other Backward Castes
ODF	Open-defecation Free
PDS	Public Distribution System
PESA	Panchayat Extension to Scheduled Areas Act
PHC	Primary Health Centre
PHDMA	Poverty and Human Development Monitoring Agency
PMJANMAN	Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan
PLFS	Periodic Labour Force Survey
PNC	Post-natal Care
PVTGs	Particularly Vulnerable Tribal Groups
PWD	Public Works Department
R&R	Rehabilitation and Resettlement
RBI	Reserve Bank of India
RE	Regular Employee
REDD	Reducing Emissions from Deforestation and Forest Degradation
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RTE Act	Right of Children to Free and Compulsory Education Act
RUSA	Rashtriya Uchcharat Shiksha Abhiyan
SC	Scheduled Castes
SCA	Special Central Assistance
SCSTRTI	Scheduled Castes & Scheduled Tribes Research and Training Institute
SDGs	Sustainable Development Goals
SE	Self-Employed
SEARCH	Society for Education, Action and Research in Community Health
SECC	Census of India, Socio-Economic and Caste Census
SHG	Self-Help Group
SNPP/VIIRS	Suomi National Polar-Orbiting Partnership/Visible Infrared Imaging Radiometer Suite
SRS	Sample Registration System
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribe

STD	Sexually Transmitted Disease
STDCC	State Tribal Development Cooperative Corporation
STFDCs	State Scheduled Tribes Finance and Development Corporations
STHDR	Scheduled Tribes Human Development Report
TB	Tuberculosis
TERI	The Energy and Resources Institute
TFR	Total Fertility Rate
TRI	Tribal Research Institute
TRIFED	Tribal Cooperative Marketing Development Federation of India Limited
TSP	Tribal Sub-Plan
TSS	Tribal Sub-Scheme
U5MR	Under-Five Years Mortality Rate
U-DISE	Unified District Information System for Education
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UPS	Usual Principal Status
UT	Union Territory
VDC	Village Development Council
VDRL test	Venereal Disease Research Laboratory test
VTC	Vocational Training Centres
WHO	World Health Organization
WPR	Work Participation Rate

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Executive Summary

Executive Summary

This Scheduled Tribes Human Development Report (ST-HDR) is the first Human Development Report devoted exclusively to analysing human development status and highlighting issues of the Scheduled Tribe (ST) communities in India. The report is prepared by the Institute for Human Development (IHD) and sponsored by the Ministry of Tribal Affairs (MoTA), Government of India. It systematically examines the levels of human development, deficits in progress, and ways ahead for the ST communities. The Report delineates the main dimensions of human development of the ST communities, including in detail about livelihoods and employment, education and health as also dimensions of gender inequality among others. It identifies key problems, and flags some critical measures for more inclusive and equitable all-round development with the intent of reducing and eliminating the development gaps between the STs and other social groups.

1. Scheduled Tribes of India

India's ST population, 104 million according to the 2011 Census, accounted for 8.6 per cent of the country's total population. ST communities can be found in most of the States and Union Territories of India. Their numbers are, however, negligible in Punjab, Haryana, the National Capital Territory of Delhi, and the Union Territories (UTs) of Chandigarh and Puducherry. Though the overall numbers of STs are less in other UTs, they form a significant share of their populations, especially in Lakshadweep, Ladakh and Dadra & Nagar Haveli. Nearly half of them (approximately 46 per cent) live in the eastern and central parts of the country (West Bengal, Odisha, Chhattisgarh, Bihar, Jharkhand and Madhya Pradesh), and 28 per cent in the western belt (Rajasthan,

Gujarat and Maharashtra). States in the Northeast account for about 12 per cent of the ST population, while the remaining 14 per cent are spread across the States of south India (Tamil Nadu, Kerala, Karnataka, Andhra Pradesh and Telangana). Though STs are mostly concentrated in the hill-forest terrains, some inhabit the plains.

Despite living amidst seemingly abundant natural resources, the ST communities are generally lower on the human development scale compared to other social groups in the country. The following are the other key notable features of the ST communities:

The size of different ST communities varies across the country. The Bhils, with a population of more than five million, are the largest ST community, followed by the Santhal, Munda, and Gond. There are also communities which are very small in population size, like the Onge and Jarawa of the Andaman and Nicobar Islands and many other Particularly Vulnerable Tribal Groups (PVTGs) across the country.

The areas inhabited by the STs, across eastern and central India, include most of India's mineral wealth. Out of India's four biodiversity hotspots, three (the Western Ghats, Northeast India and the Andaman and Nicobar Islands) are in areas populated by the STs. In other words, much of India's forest cover is also in areas where the STs reside.

The occupational backgrounds of ST communities vary. These range from gatherer-hunters, cultivators, often combined with the gathering of non-timber forest products (NTFPs), and nomadic and settled pastoralists. Further, farming systems also vary significantly - from upland swidden (or *jhum*) cultivation, terrace cultivation with hoes, to low-land

cultivation with ploughs. The STs, who migrated from Jharkhand and Chhattisgarh, comprise the bulk of India's tea plantation labourers in West Bengal and Assam. In addition, they contribute substantially to both the poorer sections of the working class and migrant workers in many parts of the country. A small section of them, however, is employed in the modern professions in academia and the bureaucracy, though often under-represented at the top of these professions.

Internal transformations, external influences and developmental interventions have led the ST communities to undergo various changes in their economic and socio-cultural systems, particularly affecting their livelihood choices. Since the ST communities inhabit the hill-forest areas where the bulk of India's mineral wealth is concentrated, they have faced disproportionately greater displacement from mineral-industrial development, while securing a smaller share of the new jobs.

2. Special Constitutional Provisions

The Constitution of India and the laws made under it recognise the special status of the ST communities and provide for special protections and administrative mechanisms for them. Areas with higher concentrations of ST populations in peninsular India are included within the Fifth Schedule of the Constitution, allowing for somewhat different administrative structures in these areas, with Tribal Sub-plans and Integrated Tribal Development Agencies (ITDA) that integrate various development activities. In such Scheduled Areas, under the Panchayat Extension to Scheduled Areas Act (PESA) of 1996, the Gram Sabhas or village assemblies have special rights with regard to various products such as NTFPs and minor minerals, as also the authority to sanction or reject proposed changes in land use.

In the North-eastern states of Meghalaya, Mizoram, Tripura and Assam, there are special administrative provisions under the Sixth Schedule of the Indian Constitution for the administration of tribal areas. These states have Autonomous District Councils (ADCs) with some administrative powers. STs constitute a majority of population in some states of the Northeast region; they account for more than 85 per cent of the State population in Meghalaya, Nagaland, and Mizoram.

3. Human Development of STs

Human Development approach is aimed at advocating expansion of human capabilities, widening people's choices and enhancing their freedoms. The starting point of the notion of human development is that people should stay healthy and live a long life, their knowledge and skills-base grow, and that there is a rise in their incomes. There are many indices and indicators that define human development and the most popular one is the Human Development Index (HDI). Along with HDI, this report also deploys Multidimensional Poverty Index (MPI) and head counts those who are poor multidimensionally, as developed by the NITI Aayog, the Wealth Index (WI), and inequality measures supporting these. The report throws light on these development indicators for the STs and also compares them with non-ST population.

The main components of these indices are as follows: HDI comprises of knowledge, good health, and remunerative income; the MPI is a composite index of indicators for health, education and standard of living; and the Wealth Index (WI) is a measure of a household's cumulative living standard in terms of the assets owned. The analysis of these indices for STs shows that there is high convergence between the HDI, Head Count Ratio (HCR), MPI and WP across states. This convergence is high despite the fact that the data for different indices are drawn from multiple sources and also that these indices differ conceptually. This suggests the robustness of the results across these development indices for STs, providing a strong basis for the following conclusions presented here. In this report, the presentations are made for 22 states where the share of ST population is significant.

1. The human development status of the STs (measured by both HDI and MPI) in the eastern and central states is low while it is relatively high in the Northeastern and Sub-Himalayan states (Table 1). On a scale of low to high values in the levels of human development among STs, Madhya Pradesh, Bihar, Odisha, Jharkhand, Rajasthan and Chhattisgarh fall in the group of states with low human development; Andhra Pradesh, West Bengal, Gujarat, Maharashtra, Karnataka, Telangana, Jammu & Kashmir, Nagaland and Arunachal Pradesh fall in the medium-level; and Himachal Pradesh, Assam

Table 1: Ranking of states by HDI of STs, 2019-21

HDI values	HDI ST	State
HDI Values (lower 6 states) <0.72	0.66	Madhya Pradesh
	0.67	Bihar
	0.69	Odisha
	0.70	Jharkhand
	0.70	Rajasthan
	0.71	Chhattisgarh
HDI values (middle 9 states) 0.72-0.79	0.75	Andhra Pradesh
	0.77	West Bengal
	0.78	Arunachal Pradesh
	0.78	Gujarat
	0.77	Karnataka
	0.78	Maharashtra
	0.79	Nagaland
	0.79	Telangana
	0.79	Jammu & Kashmir
HDI values (top 7 states) >0.80	0.80	Tripura
	0.85	Meghalaya
	0.84	Assam
	0.85	Himachal Pradesh
	0.87	Manipur
	0.88	Mizoram
	0.89	Sikkim

and the remaining North-eastern states have relatively high human development levels. In the former, the overall under-development of these states has also kept the STs' human development status low. In contrast, in the latter states the overall development status is better, and the human development status of STs is also higher. It implies that a state's overall development also impacts the HD status of STs.

- The human development of STs is lower compared with non-STs at all-India level, with a significant gap between the ST-HDI values and non-ST-HDI values at the state and national level (Figures 1 and 2). The gap exists across most of the states, which ranges from about 16 percentage points in Madhya Pradesh (high) to almost no gap in Assam.

The states that have relatively higher HDI gaps between STs and non-STs are Gujarat, Rajasthan, Maharashtra, Chattisgarh, Madya Pradesh, Odisha, Telangana and Karnataka with more than 10 percentage difference.

- Human development status has improved for STs across India over time, including a gain in the recent past witnessed in the positive change in HDI between the years 2015-16 and 2019-

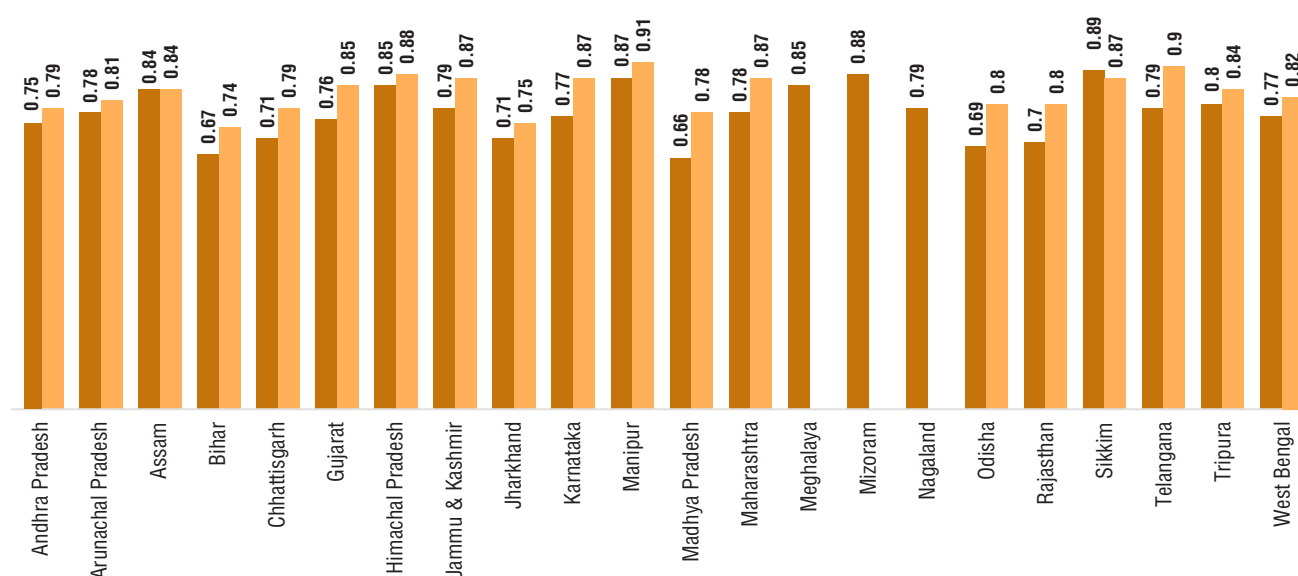
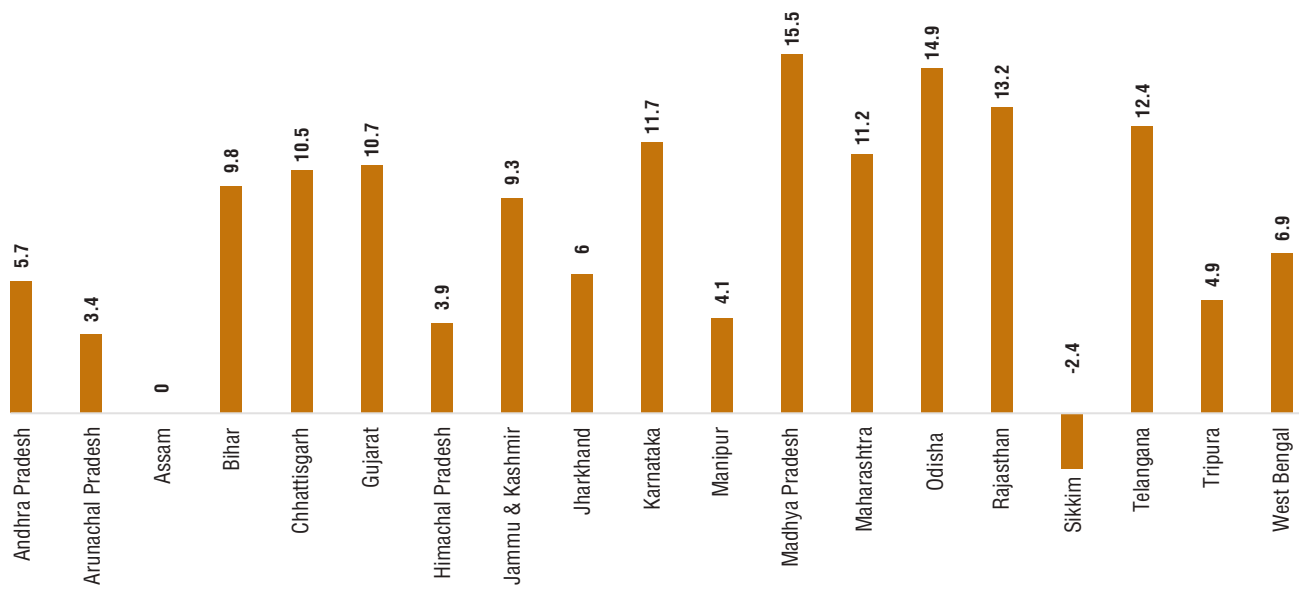
Figure 1: Human Development Index of STs and non-STs by states, 2019-21

Figure 2: Percentage gap of HDI between STs and non-STs by states, 2019-2021



Note: Gap = $\frac{[HDI\ value\ (non-ST) - HDI\ value\ (ST)]}{[HDI\ value\ (non-ST) + HDI\ value\ (ST)]} \times 100$

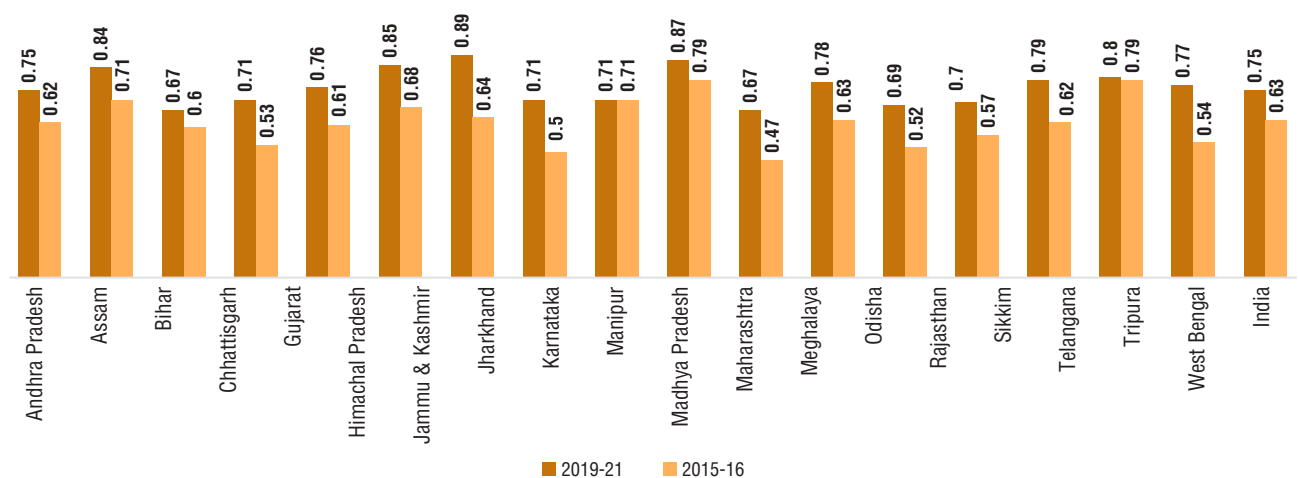
21 (Figure 3) States with low HDI for STs such as Chhattisgarh, Jharkhand, MP, Odisha and West Bengal show relatively large improvement. Further, there is a reduction in the gap between the HDI of STs and non-STs. This gap has narrowed down in some states over time; however, the disparity between the two remains significantly.

4. The HDI figure for the STs falls when it is adjusted for income inequality. The extent of this reduction ranges from four percent to

more than 10 percent. More equitable income distribution thus can raise human development in states with low human development. Here, providing employment and other self-employment through various programmes can help in raising improving the HDI status if the inequality component is managed.

5. A component-specific decomposition (of both HDI and MPI) for STs suggests that education and income are important components contributing to the indices. The component-

Figure 3: HDI Values for STs in 17 States in the years 2015-16 and 2019-21



wise analysis of gaps between STs and non-STs suggests that the gaps is the most in education, followed by income, and the least in health (Table 2). Enhancing access to education, skills and employment are clearly important pathways for improving livelihoods and income generation. The component-specific analysis also suggests that the rankings of these three components of HDI are not the same order– there are some differences. The policy priorities of states should be according to the shortfalls in specific components of that state from time to time.

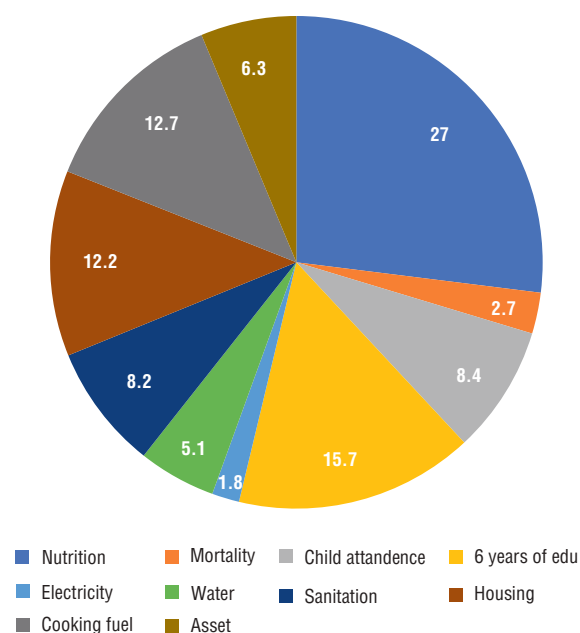
Table 2: Percentage Difference in the Dimensions of HDI Between ST and non-STs by States, 2019-2021, 17 States

	% difference MPCI-Index	% difference Health- Index	% difference Education Index
AP	1.17	20.28	2.77
Assam	0.19	0.88	-1.38
Bihar	1.99	3.53	20.69
Chhattisgarh	19.24	6.64	17.04
Gujarat	7.77	1.54	17.29
HP	2.08	-0.67	10.45
J&K	7.87	3.64	11.31
Jharkhand	13.43	3.75	12.48
Karnataka	11.71	1.30	18.15
Manipur	6.33	-2.10	8.96
MP	13.34	2.00	30.95
Maharashtra	10.33	1.96	20.21
Odisha	9.36	12.15	24.59
Rajasthan	13.93	4.40	20.47
Telangana	11.24	1.59	8.77
Tripura	2.23	-4.08	12.52
West Bengal	9.03	0.54	14.62
India	9.56	2.20	16.90

Note: MPCI-Index: Monthly Per Capita Income-Index

Gaps in components by social groups = $[(\text{Component } I_{NST} - \text{Component } I_{ST}) / (\text{Component } I_{NST} + \text{Component } I_{ST})] * 100$; I=Index; ST = Scheduled tribes; NST = Non-scheduled tribes

Figure 4: Contributions of Indicators to Multidimensional Poverty among STs (%) 2019-21 – All India



6. Within the education component, there are large gaps between the STs and non-STs in terms of the number of years of schooling or owning of computers. There has been some growth in the use of computers over the period 2015-16 to 2019-21; however, the extent of use of these is low among the STs and this is absolute deprivation that is the concern. Thus, along with efforts to remove gaps in education, there is a need for special attention and policies to bridge the digital divide.
7. The analysis on the basis of the MPI and the wealth class shows that the STs in peninsular India have a higher incidence of poverty seen by MPI, and a larger share of population in the poorest wealth class. At the same time, an analysis based on data from satellite images suggests that there is a faster rate of growth of night-light emissions in the areas inhabited by STs. Night light intensity is usually taken as a proxy for the level of development in a region. What does this change—whether the increase is in street or domestic light or industrial light or all of these—exactly mean for the ST communities, needs more careful assessment.

4. Education

It is noteworthy that the gap in access to school education between the STs and other communities at the lower primary level has been nearly bridged, and the gap is also narrowing at the upper primary level. Yet, the ST communities have a higher proportion of non-literates and a lower proportion of those completing high school than other social groups. The school drop-out rates among the ST communities remain high due to several factors. Educational problems among children tend to get also exacerbated due to seasonal migration of many ST households. The ST children are at times not able to utilise educational facilities in the destination areas of their migration, where the regional languages are different.

The inequality between the STs and the non-STs in Information Technology (IT) and higher education needs to be addressed. While gaps in basic capabilities, seen in school enrolments, are narrowing between STs and non-STs, there are significant inequalities in advanced capabilities such as computer skills, and technical and science education. This is particularly important in the context of increasing dispensation of education via digital technology. Along with seeking admission into technical and science education and in completing it, there is also need to devise innovative ways of tutoring to enable the ST students to enter into and complete technical and science education.

On the positive side, a primary small sample survey among the ST households, conducted to capture the perceptions on development and the aspirations, suggests that the ST households place a high value on education and aspire for their children to secure higher education. A majority of them expresses their willingness to send their children to distant places to pursue better education.

5. Health

The ST communities lag behind the other social groups on most indicators of health and nutrition. Although child survival among the STs has improved, the under-five mortality rate among the ST communities is still high at 50 compared to 42 for all groups. The nutritional status of children as well as that of women belonging to the ST communities is also lower than that of other groups. Among

the factors contributing to the poor health and nutritional status of the ST communities are the high dependence on local, at times non-scientific, health practices, and the high dependence on public health facilities, which in some places are inadequate. The overall lower health status of the STs compared to that of other communities, indicates the need to improve health services in locales where the the ST communities dwell.

On the positive side, the Infant Mortality Rate (IMR) among the STs declined from 91 per 1,000 in 1992-93 to 41.6 per thousand in 2019-21 as per the NFHS data. However, this figure was still high compared to the national aggregate of 35.

There is a regional dimension to the problem of health standards of the STs. States in central and eastern India—Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha and West Bengal—show higher Neonatal Mortality Rate (NMR), Infant Mortality Rate (IMR), and Under-five years mortality rate (U5MR) values for the STs when compared with Gujarat, Himachal Pradesh, or the Northeast States.

Next, there is a high prevalence of anaemia amongst ST children in most states in peninsular India. The worst affected states are Jharkhand, Madhya Pradesh, and Rajasthan, which also have high poverty rates. Though the North-eastern States are better on this count, there are significant intra-North-east differences: Meghalaya, Sikkim, and Tripura show large proportions of anaemic children.

As already listed by the Report of the Expert Committee on Tribal Health, the following challenges of health among STs need to be addressed: controlling malaria, decreasing the prevalence of malnutrition, reducing child mortality, ensuring safe motherhood and the health of women, providing family planning services and infertility care, controlling the use of addictive substances, providing de-addiction and mental health services, tackling sickle cell disease, ensuring timely treatment of animal bites and accidents, promoting health literacy, and addressing the health needs of children in Ashrams.

6. Livelihoods

Women and men among STs join the labour force earlier than their counterparts from the other communities, largely due to the higher incidence

of poverty and dropping-out of school. Higher labour force participation is accompanied by higher unemployment levels among the educated. There is job reservation in government and public sector jobs for STs. But in the last two decades, economic growth has mainly stemmed from the private sectors, where the employment reservations benefits are not applicable. The STs have been unable to match the better educational levels of the non-STs to secure these private sector jobs.

A basic feature of ST livelihoods is that of the comparatively low productivity of the hill and mainly rainfed agriculture they engage in. Yields from agriculture achieved so far are just a fraction of what has been achieved in green revolution areas (for example, in states like Punjab and Haryana). The growth of the landlessness, the low productivity of ST agriculture, and the general absence of a substantial rabi (winter) crop, have led to a high degree of out-migration of the STs. However, the migrants are concentrated in low-paid jobs in agriculture elsewhere, construction, and casual or contract labour jobs in manufacturing. Their overall poor educational attainment constrains them from acquiring better paid and more secure urban jobs. Forms of seasonal and circular short-term migration dominate their migration, with migrants maintaining annual and long-term economic connections with their areas of origin, returning when they end up being unemployed, sick, or retired.

The ST communities substantially collect and produce non-timber forest products (NTFPs). The provisions of the Forest Rights Act (FRA) and Panchayat Extension to Scheduled Areas Act (PESA) enable ST communities to benefit from their management of these resources. However, the production and the processing of NTFPs require better marketing conditions for them to effectively gain from these activities. Setting Minimum Support Prices (MSPs) for NTFPs would also benefit forest dwellers in the presence of better marketing conditions. Building organisations of collectives, such as women's Self-Help Groups (SHGs), and linking them with para-statal organisations such as TRIFED, could be a way of overcoming some of the existing issues in trading. There have been initiatives in this direction, such as 'Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) & Development of Value Chain for MFP' and the recent *Van Dhan Yojana*

as entrepreneurship-enabling scheme for the forest gatherers. These need to be scaled up, publicised and effectively implemented for promoting the STs' livelihoods and inducing dynamism and sustainability in the forest economy.

In view of the substantial migration undertaken by the STs, mainly into low-wage employment, it is necessary to improve the quality of that migration. Other than in the low-skill manual labour, both industry and services generally require some levels of education. Nowadays, industry prefers workers who have at least completed high school. Thus, ensuring the completion of school education among the STs and providing them skill training are important to help ST migrants improve their position in the labour market.

It is now established that the STs have disproportionately suffered from displacement due to mining activities. In this regard, the ST communities need to be allowed to decide on whether or not to hand over their lands for mining or alternative uses, a right guaranteed by PESA, and the Supreme Court's Samatha judgment and manifested in the Niyamgiri case where the Gram Sabhas rejected a mineral-industrialisation proposal. Honouring 'free, prior and informed consent' (FPIC) is part of India's national and international commitments. Wherever there is Gram Sabha-decided change in land use, schemes are also needed for rebuilding and creating new livelihoods. For example, some labour-intensive manufacturing units for garments have been set up near Ranchi. In the same manner many such initiatives are needed in the ST-populated areas. Such industrialisation would also reduce distress migration among the STs. The current pandemic-induced downturn in the Indian economy exposes the vulnerability of ST livelihoods.

There is a need to consider an overall basic income programme of the Central and State governments for the STs. Such a basic income programme will also help reduce the problems faced by the STs in displacement from their productive resources. Since STs generally have low overall income levels, a basic income guarantee could help them overcome consumption shocks and food insecurity. MGNREGA has often functioned to provide some basic income in rural areas, but it has not been sufficient to prevent the early withdrawal of children from school. A basic income for ST persons and

households could also help reduce the incidence of ST children dropping out of school. In short, a direct cash transfer as part of this income support should be made to women members of the households, in order to improve their wellbeing as well as their status within the households and communities.

7. Physical Infrastructure

The ST communities have seen an improvement in access to pucca roads, toilets, electricity, and LPG gas cylinders. Yet, only some 63-64 per cent of the ST households have access to latrines, and only 51.4 per cent use LPG as the primary fuel – lower than the national average in the years 2018-21 (NSS 2018 and 2019-21 NFHS).¹ Night light intensity data shows an improvement in ST areas in recent years, which is also reflected in the increased household connectivity – access to electricity increased from 82 percent 95 percent between 2015-16 and 2019-21. Access to internet connections in tribal areas remains a problem. Similarly, while STs have shown a greater improvement in road accessibility than other communities, a lower proportion of ST villages are connected by road compared to the villages of other communities.

Among states, STs in Jharkhand, Odisha, and Rajasthan had largest proportion of households without access to electricity as in the new millennium. Overall, the access to electricity for domestic use was found to be poorest among States in eastern and central region, which also accounted for the most glaring disparity between STs and non-STs. In household toilet facility, the disparity between STs and non-STs is most stark in the northern and western regions with most marked differences in Rajasthan and other states. With regard to LPG cooking fuel, the states of Odisha and Jharkhand have the lowest proportion of STs accessing it (Source: NSS data, 2018). Reduction of the disparities in access to clean cooking fuel thus must continue to be a priority.

Governments need to prioritise effective access to both basic infrastructure, such as roads and houses, but as well as to the modern infrastructure

¹ NSS and NFHS provide different estimates owing to their sampling designs but the range of the numbers generated is similar. NFHS 2019-21 records 56 percent of ST households with improved toilet facility for exclusive use of the household and 32 percent with access to clean cooking fuel.

of the digital economy for STs. Online education is expected to grow, even at the school level. This will necessitate equipping the ST households with the requisite infrastructure of smart phones, fast Internet connections, and reliable electric supply.

7. Gaps in Basic and Advanced Capabilities and Infrastructure

The gap in inequalities in access to basic social services has been narrowing between the ST and other communities, especially in terms of electricity, drinking water facility, housing, school attendance, death below 18 years of age, nutrition, and ownership of TVs, and mobile phones. On the other hand, the gap has widened in terms of the new or advanced capabilities and facilities, such as higher education, computer skills, and access to computers that are required for the modern economy. For instance, in the ownership of computers, the gap has more than doubled between the STs and other communities, from a 5.8 percentage point difference in 2005-06, to a 13.7 percentage point difference in 2015-16 and 12.6 in 2019-21. Only 3.7 per cent of the ST households had a computer as against 16.2 per cent among others (other than SC/ST/OBC) (Source: NFHS 5, 2019-21).

8. Gender Inequalities

There are encouraging trends of a reduction in some dimensions of gender inequality even as the position of ST women is significantly undermined within their households and communities. Gender parity in school enrolment has improved over the years, but the gaps in higher education remain more compared to other groups. There has been a reduction in teenage pregnancies, and in the levels of domestic violence. However, teenage pregnancies and domestic violence levels are still much higher among STs compared to other non-STs. Further, there has been a sharper deterioration of child sex ratio in the recent years, even though STs have a remarkably higher sex ratio compared to non-STs (Sources: Census data 2001 and 2011).

Most of the ST communities, like the non-STs, are patrilineal, with control over land and other property vested with men, which places women in a subordinate position. Women belonging to the ST households earn, on average, about 33 per cent less than men in the household as per NSS data 2020-

21. The decision-making powers with regard to their own earned incomes are low despite high levels of labour market participation among the ST women. In 2019-21, according to the NHFS, the proportion of ST women who reported being sole decision-makers for their earnings was only 14.3 per cent, lower than the national average of 18.1 per cent. Besides domestic violence, studies also point to the incidence of other forms of violence against the ST women (Source: NFHS reports). For example, there are instances of women being subject to various forms of persecution and even killing with accusations of witchcraft.

9. Looking Ahead – Guiding Principles

The ST communities especially over the past two decades, have made considerable progress on several dimensions of human development. Although the gap between the STs and other social groups is narrowing in several dimensions, the ST communities have yet continued to lag behind other social groups in terms of overall human development achievements. Three overarching principles, as discussed below, should guide the reshaping of policies and programmes for accelerating the well-being of ST communities across India:

One, primacy should be given to justice, autonomy and empowerment on the one hand, and decentralised planning and administration on the other.

Two, human development initiatives should consider ways of expanding opportunities while at the same time respecting the cultures and rights of the ST communities and protecting the environment.

Three, differentiated development strategies and approaches should be designed keeping in mind the diversity and heterogeneity as well as the culture and context specificities of the ST populations. It is necessary to design livelihood transformation support programmes, specifically for PVTGs, and pay special attention to developing programmes for the ST areas of eastern and central India. Similarly differentiated approaches are needed to promote the well-being of specific communities.

10. The Way Forward

Public action in the following areas can accelerate the pace of positive change in the lives of the ST communities.

Ending child marriage and increasing the number of years at schools through community mobilisation is paramount. In fact, an increase in the number of years at school might itself help in raising the age of marriage. But increasing the number of years of schooling is an economic issue, since poverty often drives ST children to quit school. Thus, economic measures need to be supplemented by community consciousness of the dangers of early marriage, particularly that of teenage pregnancy.

Strengthen Livelihoods

A national priority should be to enhance incomes by expanding the livelihood opportunities for a majority of the ST communities. This can be done by focusing on several land-related interventions, some of which are as follows:

- Introduce measures to include strengthening of land rights (and respecting the rights of the STs in deciding on changes in land-use);
- Increase irrigation through methods of water-retention in hill agriculture or other watershed management methods;
- Promote high-value commercial crops and organic farming;
- Develop market-based agricultural specialisation, for example, horticulture and agroforestry crops, such as Araku coffee, which is a high-value product; and
- Extend state marketing support, preferably with digital infrastructure.

Priority should be attached to addressing the land and livelihood rights of the PVTGs, using both FRA and PESA, and by acquiring and allocating substantial tract land and tenurial rights.

In addition, both, the Central and State governments should plan to support cooperative marketing with Minimum Support Prices (MSPs) and introduce measures to increase the price realisation from the NTFPs. This has been done in some states and requires extending elsewhere as well. It is also necessary to establish migration facilitation centres and enforce extant laws on migrants' rights to prevent exploitation of the ST communities and ensure their access to services provided by the State to migrant workers. The government could build organisations of worker collectives, such as

women's SHGs, and link them with organisations such as TRIFED to improve profit at hand to the ST community workers.

The Central and State governments should make systematic efforts to create employment opportunities for the ST communities in the non-farm and industrial sectors as well. In addition to skill upgradation and training, it is imperative to encourage the setting up of labour-intensive manufacturing units such as garment manufacturing in the ST-dominated areas.

For the STs of Northeast India, it is necessary to design development policies based on their comparative advantage vis-à-vis both, the rest of India and also the neighbouring countries. This would mean developing high-value agriculture, horticulture, orchid cultivation, and speciality tea or coffee, in addition to handicrafts and other non-farm activities. This requires a number of measures: marketing including through digital devices, infrastructure, training, and the use of community-certified land titles to enable extension of bank credit. Manufacturing too needs to be of the high-value type, such as in pharmaceuticals, to utilise the higher educational levels of the ST community in the Northeast. Professional training institutes, such as those for nursing in Manipur, will support the migration of the STs into well-paying and respectable professions elsewhere.

Improve Public Provision of Basic Social Services

The key areas that require urgent attention are health, nutrition, education, and public infrastructure, including household electricity and transportation.

- **Health and Nutrition:** The Central and State governments should prepare State Action Plans for Tribal Health, drawing on the recommendations of the Report of the Expert Committee on Tribal Health. The overall goal should be to craft a universal health coverage plan for the ST communities. Priority should be given to strengthening public health systems, especially in the eastern and central zones to ensure the better reach of health services to them. Equally important is the need to address the human resource shortages and the limited availability of staff knowing the local languages.

- The COVID-19 pandemic and the increased threat of mortality to persons with chronic lung ailments. For the latter, attention requires being paid to the necessity of securing clean cooking energy for improved health. Such an approach will also raise India's contribution to reducing greenhouse gas emissions.
- **Education:** A sub-plan for tribal education should be developed within the framework of the National Education Policy that addresses the special needs of the ST communities. Among the options could be to include offering ST languages as a medium of instruction in primary schools and stepping up the recruitment of local ST teachers. The Government could also consider providing income support (in the form of conditional cash transfers or stipends) to enable the ST students to complete high school education. Efforts should further be made to promote ST's participation in higher education and especially technical and professional education. Additionally, State governments could consider setting up of special institutes to develop the traditional technical knowledge of the STs for coping with many of the new emerging problems, including those related to health and climate change. Other measures could include the expansion of an improved community management of residential schools, improving schools for migrant families at the "sending end" rather than at the "receiving end" to prevent school disruption, and initiating special measures to bridge the digital divide.
- **Physical Infrastructure:** In this context, two areas need urgent attention. The first is to ensure 'last-mile' connectivity in many of the ST regions, where the reach of transport services is still insufficient. At the same time, the availability of electricity in many of the ST residential areas needs to be significantly improved. Investments in these two areas are likely to have a multiplier effect on not only income generation, but also on the levels of improvements in health, education, and other indicators of well-being.
- **Universal Social Protection Measures:** The Central and State governments should make concerted efforts to ensure universal coverage of the ST communities under schemes that benefit the poor and vulnerable. This should begin by ensuring universal enrolment under the various

schemes of the State that provide for health and medical insurance, pensions, MGNREGA, and providing income support to women to enable them to cope with return migration and security of income sources

Promote Greater Gender Equality

Addressing the many disadvantages that women belonging to many of the ST communities face vis-à-vis men should become a priority, while designing context- and culture-specific interventions to promote greater gender equality. Three specific areas and actions are recommended: extend income support to the ST women, actively promote higher education among ST women and remove gender disparity therein, and women's empowerment and inclusion through SHGs and political participation.

Further, initiate actions against the persecution of women as witches. Women's groups, community-based organisations, women's collectives, and youth organisations should be mobilised and supported to oppose 'witch' hunts and other forms of violence against women, bring about changes in social norms particularly with respect to land rights, and the exercise of women's agency.

Improve Governance

The following five areas need immediate attention to improve accountability as well as the efficiency and effectiveness of service delivery:

- Strengthening decentralised natural resource management through PESA and FRA;
- Equipping Gram Panchayats and Gram Sabha's to provide improved access to basic social services, including the implementation of government interventions in education, health, and provision of other services;
- Utilising the traditional technical knowledge, especially on forests and ecology, by involving the ST communities in the decentralised management of natural resources, as is provided for in FRA and PESA;
- Promoting pro-actively the participation of those belonging to the ST communities, especially women, to end cultural discrimination and improve the implementation of various socio-economic programmes; and
- Adopting and adapting some of the approaches used by the ST communities that recognise the delicate interconnections of human lives and the natural world, including animals, to address issues of the environment and climate change.

In conclusion, it is vital to point out that India needs to pay special attention to the human development challenges faced by its ST communities. In designing development paths for advancing inclusive development, attention ought to be paid to the many positive aspects of the socio-cultural systems embedded among the ST communities. In particular, the practice of egalitarianism as a counter to growing inequality, and participatory democracy, with modifications to allow the full participation of women, can pave the way for genuine inclusive development across the country.

C H A P T E R

1

Introduction

Introduction

This Scheduled Tribes Human Development Report is prepared by the Institute for Human Development (IHD) and is sponsored by the Ministry of Tribal Affairs (MoTA) of the Government of India (GoI). It delineates the main dimensions of human development of the STs and identifies key issues and suggests broad policies for ushering in inclusive development.

1.1 On Human Development

Human Development is the process of enlarging people's freedoms and opportunities and improving their well-being. Human Development is about the real freedom that ordinary people have, to decide who to be, what to do, and how to live.¹

Human Development (HD) entails expansion of human capabilities, people's choices and freedom to achieve their goals and dreams to the best of their potential, without encroaching on others' rights. The definition of human development is somewhat different from classical economic development. The primary emphasis in human development is on people and not on physical output. Physical output is just a means to improve human development. Implicit in the whole exercise is the recognition that all development is a result of human action; therefore, strengthening the "human" to contribute to the society is essential.

The HD process is about developing multifaceted capabilities in people and creating an environment

that would enable them to live with freedom and dignity. The paradigm of HD has two fundamental components – equal opportunity for all irrespective of creed, gender, race, or ethnicity; and *sustainable living*, i.e., with ecological conservation. HD is an evolving concept; each of its components is refined with time and follows a specific trajectory, which results in the concept itself undergoing accumulative change.

The HD paradigm is highly flexible—sometimes referred to as inclusive HD—as it includes varied aspects that require attention. For example, the Scheduled Tribes (ST) of India are culturally rooted, which is a specific and unique feature of the STs in this country. This enables them to build on the positive aspects of their culture, be it the various ways of dealing with natural surroundings or incorporating the values of egalitarian economic systems and small-scale participatory democracy. Such inclusive HD also provides the STs with the agency to develop as well as utilise their specific forms of indigenous knowledge, both technical and cultural. Thus, inclusive human development entails respecting their cultures and recognising them as equal citizens in the development process.

1.2 This Report

This ST Human Development Report (HDR) is the first of its kind in India, focusing exclusively on various developmental issues of the ST communities and reflecting on the policies required to realise the goal of inclusive human development. It analyses the levels of human development and levels of living and the changes in these dimensions in the

1. Taking development measures beyond income, Haq led at UNDP the establishment of the Human Development Reports and Human Development Index, See Haque 1995

recent years. It aims at examining and proposing policies for eliminating poverty among the STs, and reducing inequalities in the area of education, health, livelihoods, and opportunities between STs and non-STs. As stated earlier, the STs are uniquely culturally rooted, which enables them to build on the positive aspects of their culture, be it the various ways of dealing with the environment or values of egalitarian economic systems and localised democratic processes. The report starts with measuring the human development status of the ST communities in comparison with other social groups. It then goes on to present in detail each facet of development, such as livelihoods, education, health, infrastructure, status of women, as well as the issues faced by the ST people in the Northeast, and the Particularly Vulnerable Tribal Groups (PVTGs). The report also presents a comparative analysis of the performance of ST communities versus other social groups in the country. As far as possible, efforts have been made to provide state-wise disaggregated data.

This introductory chapter, in the following sections, outlines the main features of ST communities, their geographical spread and population. Thereafter, it presents the methodology followed in the preparation of this report. This section describes the methods of computation of different indices of development: the Human Development Index, the Multidimensional Poverty Index, measures of Wealth and measures of Inequality. In the final section of this chapter, a summary of the report's structure and the chapter outline are presented.

1.3 The Scheduled Tribes in India

The Scheduled Tribes (also referred to as Adivasis in areas other than the Northeast) are peoples who for historical reasons have long dwelled in relative isolation. At the time of independence, these communities were found to be socio-economically vulnerable. The Constitution of India provides special status, special provisions and protection to the STs, and in certain aspects it also puts in place different administrative provisions for them. Governments abide by these provisions and protections guaranteed to the ST communities. They have also attempted to make available opportunities and facilities to these communities, though there is still room for

improvement as much needs to be achieved even today.

1.3.1 Population and Geographical Spread

India's ST population was 104 million according to the Census of 2011 and accounted for 8.6 per cent of the country's population. The proportion of STs at the time of independence was about 7.5 per cent. The increase in the share of STs in total population happened partly due to the higher population growth among the STs and partly due to the inclusion of some groups as STs, earlier left out.

The STs can be found in all states and Union Territories except in Punjab and Haryana, Chandigarh and Puducherry. Nearly half of them dwell in the eastern and central belt of India (West Bengal, Odisha, Chhattisgarh, Jharkhand, and Madhya Pradesh). Twenty-eight per cent reside in the western belt of India (Rajasthan, Gujarat, and Maharashtra). The North-eastern states account for about 12 per cent of this population (STs are the predominant communities in most of these states). The remaining 14 per cent are spread across South India (Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, and Telangana) (Table 1.1). The ST communities mostly reside in the hilly-forest terrains though there are some tribes, such as the Bodo in Assam, who dwell in the plains.

Areas that have higher concentrations of ST populations in peninsular India are included within the Fifth Schedule of the Constitution, thus providing room for different administrative structures with Tribal Sub-plans and Integrated Tribal Development Agencies (ITDA) that combine various development activities. In such Scheduled Areas, under the Panchayat Extension to Scheduled Areas Act (PESA) of 1996, the Gram Sabhas or village assemblies have rights with regard to various products, such as non-timber forest products (NTFPs), and minor minerals such as sand. They also have the authority to approve or reject proposed changes in land use; typically, a shift from agriculture or forestry to mining and industry. In some of the Northeast Indian states, such as Mizoram, Meghalaya, Tripura and Assam, the Sixth Schedule of the Constitution provides special administrative provisions, wherein Autonomous District Councils (ADCs), with some administrative powers, have been established.

Table 1.1: Number and Share of ST population, all India/state-wise

States/UTs/All India	Total population (in '000)	ST population (in '000)	per cent of STs in state-to-state population	per cent of STs in state-to-ST population
Eastern and Central region				
Bihar	1,04,099	1,337	1.3	1.3
Chhattisgarh	25,545	7,823	30.6	7.5
Jharkhand	32,988	8,645	26.2	8.3
Madhya Pradesh	72,627	15,317	21.1	14.7
Odisha	41,974	9,591	22.8	9.2
West Bengal	91,276	5,297	5.8	5.1
Western region				
Dadra & Nagar Haveli	344	179	52.0	0.2
Daman & Diu	243	15	6.3	0.0
Goa	1,459	149	10.2	0.1
Gujarat	60,440	8,917	14.8	8.5
Maharashtra	1,12,374	10,510	9.4	10.1
Rajasthan	68,548	9,239	13.5	8.8
Northern region				
Himachal Pradesh	6,865	392	5.7	0.4
Jammu & Kashmir	12,267	1,275	10.4	1.2
Ladakh	274	218	79.5	0.2
Uttar Pradesh	1,99,812	1,134	0.6	1.1
Uttarakhand	10,086	292	2.9	0.3
Southern region				
Andaman & Nicobar Islands	381	29	7.5	0.0
Andhra Pradesh	49,387	2,631	5.3	2.5
Karnataka	61,095	4,249	7.0	4.1
Kerala	33,406	485	1.5	0.5
Lakshadweep	64	61	94.8	0.1
Tamil Nadu	72,147	795	1.1	0.8
Telangana	35,194	3,287	9.3	3.1
North-eastern region				
Arunachal Pradesh	1,384	952	68.8	0.9
Assam	31,206	3,884	12.4	3.7
Manipur	2,856	1,167	40.9	1.1
Meghalaya	2,967	2,556	86.1	2.4
Mizoram	1,097	1,036	94.4	1.0
Nagaland	1,979	1,711	86.5	1.6
Sikkim	611	206	33.8	0.2
Tripura	3,674	1,167	31.8	1.1
States and UTs with no ST population				
Chandigarh	1,055	-	-	-
Haryana	25,351	-	-	-
NCT of Delhi	16,788	-	-	-
Puducherry	1,248	-	-	-
Punjab	27,743	-	-	-
All India	12,10,855	1,04,546	8.6	100.0

Note: Indicates negligible population.

Source: Census of India, 2011

Prior to the British colonial rule, the “tribes enjoyed autonomy of governance over the territory they occupied”.² As the British conquered and subdued the tribes, they were kept in “partially excluded areas” in peninsular India and “excluded areas” in Northeast India, in accordance with the Government of India Act of 1935. The “partially excluded areas” came under the Fifth Schedule and the “more excluded areas” came under the Sixth Schedule. The idea that the development of the STs required a different set of laws and administrative systems was carried over to the Indian Constitution.

1.3.2 Social Practices

The STs profess many religions, and over time, their religions have been classified differently. For example, in 1871 (Census) their religion was counted under “other religions”; in 1881 “aboriginal”; in 1891 “forest tribe”; in 1901 and 1911 “animist”; in 1921 “primitive”; in 1931 “tribal religion”; and in 1941 “tribes”. Since 1951, there has been no distinct classification of religions other than “other religions”. As of today, a large number of them follow Hinduism and some follow Christianity (Census of 2011). In some locales, members of the same tribe follow different religions, such as among the Khasi tribe, some follow their local religion and others follow Christianity. Santhal, Munda, and Oraon tribes have followers of their own religions as also Hinduism, Christianity, etc. However, within STs there are many who along with following their traditional religious practices, which are rather complex sets of beliefs and practices linked to life cycles, forest, and agricultural seasons, also practise religions such as Hinduism or Christianity.

Most of the STs are patrilineal, with property, mainly land, being inherited by the male line. Post-marital residence is also patrilocal in these communities. There are a few matrilineal communities, e.g., the Khasi and Garo in Meghalaya (Northeast). They follow matrilineal post-marital residence, with husbands living with their wives’ families.

The ST communities belong to all the major language groups of India, viz. Indo-European (e.g.,

the Bhil of Rajasthan), Austro-Asiatic (Munda and Santhal of Jharkhand and the Khasi of Meghalaya), Tibeto-Burman (Mizo and Naga), Dravidian (Gond of central India), and Andamanese (Onge and Jarawa of the Andamans). Bhil is the largest ST community, with a population of more than five million, and the other large ST communities are the Santhal, Munda and Gond. Most of the Particularly Vulnerable Tribal Groups (PVTGs) have very small population, such as the Onge and Jarawa in the Andaman and Nicobar Islands. Some of the smallest language groups among them have become extinct. Thus, there is a considerable diversity among STs, with regard to religion, language, or otherwise.

The STs generally pursue traditional livelihoods, including agriculture and food hunting and gathering of forest products, among others. They are also engaged in casual wage work as well as in modern professions. As far as agriculture is concerned, cultivation practices range from hoe-farming on the hill slopes to settled plough-based agriculture in valleys and relatively flat lands. In the hilly regions of peninsular India, STs have traditionally followed the rotational fallow or swidden method, locally referred to as *podu* (in Andhra Pradesh and Telangana) or *jhum* (in central-east and Northeast India). In Northeast India the STs also practice terrace cultivation. Most of the PVTGs have traditionally been foragers or gatherers and hunters, and often nomads, and presently they are practicing settled agriculture along with their traditional occupations as well as wage labour.

Socially, the STs are quite different from the other communities of India. “Lower consumption of milk and milk products, a larger intake of pork and country-made brew, marriage by service or elopement, and offering of bride-price, are some traits commonly associated with the scheduled tribes”.³

In the last three decades or so, since these features were noticed among the ST communities there have been many changes, including a large number of STs trying to emulate aspects of the Hindu culture.

2 Xaxa 2020: xv

3 See Singh 1996: 13

It must also be noted that the STs are undergoing various types of changes in their economic and social systems, because of both internal transformations as well as external pressures. It was pointed out that by mid-1990s, only about half of the traditional hunters and gatherers continued their traditional pursuit, while the other half seemed to have abandoned it. Some of the former hunter-gatherer tribes are Baiga and Mawasi of Madhya Pradesh, Mal Paharia of West Bengal, and Chenchu of Andhra Pradesh and Telangana.⁴

The areas inhabited by the STs across the eastern and central India include most of India's mineral wealth. Out of India's four biodiversity hotspots, three (the Western Ghats, Northeast India and the Andaman and Nicobar Islands) are populated by the STs. Much of India's forest cover is also in areas where the STs dwell. As a result, the STs have also faced disproportionately greater displacement because of mineral-industrial development, while securing a smaller share of the new jobs created compared to the mainstream population. Thus, as will be seen later in this report, despite residing in areas rich in natural resources, the ST communities generally are poor, with human development indicators lower than other social groups in the country.

1.3.3 Development Issues

As stated earlier, the STs comprise diverse socio-economic communities, from gatherer-hunters, upland swidden (or *jhum*) cultivators, terrace cultivators with hoes, to low-land cultivators with ploughs, often combined with the gathering of NTFPs, and nomadic and settled pastoralists. The Sentinelese and other STs of the Andamans are gatherer-hunters and are into fishery. The STs who migrated from Jharkhand and Chhattisgarh comprise the bulk of India's tea plantation labourers in West Bengal and Assam. In addition, STs constitute a substantial proportion to both, the lower segment of the working class and migrant workers, in many parts of the country. Some of them are into modern professions, such as academics and the bureaucracy; however, often they are under-represented at the top layers of these professions.

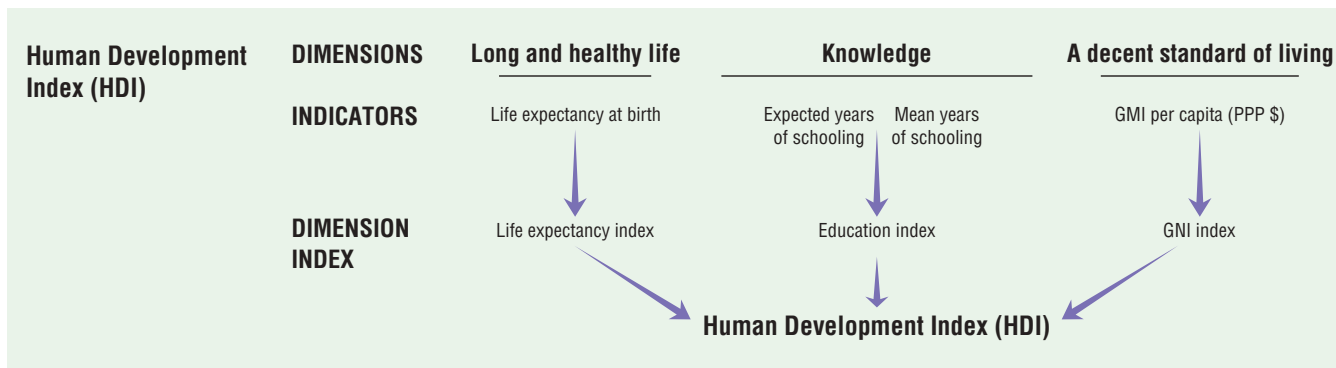
Over the period, the socio-economic fabric of the STs has undergone tremendous change. There have been gradual shifts away from subsistence economies with forms of redistribution, where the earlier forms of community- or village-based social security have been eroded. In the process, some sections have been adversely incorporated into accumulative economies, witnessed in their presence at the lower end of occupational hierarchies and employment conditions. To overcome these arduous transformations, governments at both national and state levels have put in place several policies of affirmative action and enacted laws to promote the welfare and development of the STs. These schemes provide infrastructure (e.g., electricity, water, communication, housing) and facilities for education and health to further their livelihood opportunities. However, despite these efforts, the STs lag behind other social groups in both, economic and human development indicators. Following are the reasons for this lag: there has been a continuous decline in forest lands due to urbanisation; modern agriculture not associating the ST, is expanding; plantations are growing on forest lands; mineral-industrial clusters are being set up, and mega projects for irrigation and generation of hydroelectricity are rapidly growing. While there are many subsidies and affirmative actions, such as reservation of seats in education and jobs, the STs have still remained relatively disadvantaged. Also, despite the facilities extended to them, the schemes are less than effective. In many instances, they are forcibly displaced and forced to seek low-paying livelihoods far away from their places of origin. The scourge of social discrimination against them is also still prevalent. Consequently, the STs suffer from disguised unemployment, poor health, low education, and lack of livelihood opportunities and poverty.

1.4 Methodology of this Report

Human Development Reports are broad-based documents meant to highlight issues that need to be brought to the mainstream. They are periodically brought out and aim to highlight specific "people-oriented" issues. The principal methodology deployed is to compute a string of "human-sensitive" indicators to highlight the issues, and then discuss different sub-components of the issues in detail. The

⁴ *ibid.*: 63

Figure 1.1: Dimensions and indicators of HDI



United Nations Development Programme (UNDP) began the exercise in 1990; thereafter regional, national and sub-national HDRs have been prepared.

This HDR is broad-based, relying on data and information from a variety of sources on the STs. It also deploys a number of quantitative indicators for both spatial and temporal comparisons. This is in addition to data on the basic social and cultural aspects of the ST communities. A short description of the quantitative indices is presented here.

1.4.1 Human Development Index (HDI)

At the outset, it needs to be stated that the HDI forms only a component of Human Development – there are many other components, described earlier. Nevertheless, the HDI is important as it provides a broader development-index compared to others, such as the GDP.

There are three components (dimensions) of the HDI—income, health, and knowledge. The most recent formula for measuring the HDI, put forth by the UNDP, entails first constructing dimension-specific indices and then getting a geometric mean of the three equally weighted indices.⁵

The next step is to calculate the dimension indices. These are calculated as:

⁵ Since 1990, the UNDP has published the HDIs. However, it has changed the definition of the HDI more than once. For instance, the definition earlier entailed not geometric but arithmetic averages. Also, income was measured in its generic form and subject to logarithmic transformation.

The “actual value” is the value of variable at the *i*th observation, where *i* = 1 to *n*, in a series containing *n* observations. In the exercise carried out here, in most cases, the maximum value is raised by five per cent and the minimum value reduced by five per cent, to keep a check on the volatility of the index.

All the three dimension-indices are unitless numbers. These have been so constructed as to do away with any biases stemming from units of measurement. Next, given that they are unitless, they permit addition, multiplication, etc. Note that each of the dimension indices is less than unity.

The next step is to combine the three-dimension indices, for which the formula is:

$$HDI = (I_{Health} * I_{Education} * I_{Income})^{1/3}$$

A geometric mean is preferred to an arithmetic mean to minimise the impact of one index on the other.

Measurement: The HDI computed here is a *Modified HDI*, since the databases used here are different from those deployed internationally, resulting in setting goalposts uniquely. The data sources are described here while the goalposts are defined in Chapter 2.

Officially, in 2017-18, for the first time India began to collect data on incomes through its Periodic Labour Force Surveys (PLFS) and thereafter these are collected annually. The Per Capita Monthly Income (MPCI) obtained from PLFS 2020-21 has been

subject to a natural logarithmic transformation, as per the required formula.⁶

Next, knowledge seen in terms of education has been measured through two variables—the *average years of schooling* and the *expected years of schooling*, both sourced from PLFS, 2020-21. While the mean years of schooling variable is obvious in its definition, the expected years of schooling, i.e., the number of years a two-year-old child is expected to spend in school, is calculated as the sum of the enrolment rates observed at the different ages, from 2 to 29, as obtained from the PLFS 2020-21.

Finally, in the absence of data on longevity at the required disaggregation, the variable used in this report is Under-5 Mortality (U5MR, i.e., 1,000 minus U5MR). *Longevity refers to the probability of a person surviving a number of years at birth (i.e., <1 year). It is calculated mathematically using a Life Table. U5MR is the mortality of children less than five years. In fact, U5MR is part of the calculation of longevity, which lends credibility to this substitution.* Data on longevity can be calculated from the recent National Family Health Surveys (NFHS) (of 2015-16 and 2019-21) for a limited number of states (about seven, which is not sufficient for the HDI calculations of STs) only. This, when correlated with data on U5MR shows a Pearson correlation coefficient of 0.88-0.89 at 99.5 confidence in any of the two years. This partly confirms the credibility for using U5MR as a substitute for longevity (see for calculations, Appendix 2.1 in Chapter 2).

1.4.2 Poverty Indices

Globally, the most common definition of poverty, also put forth by the erstwhile Planning Commission of India, is based on the calorific value of consumption (plus a mark-up to account for non-food items). The 2009 Tendulkar Committee, set up by the then government, had suggested a broader definition

of poverty, one that included *spending on food, education, health, and clothing*, and also using uniform price lines for both rural and urban areas. This method, now popular, entails enumerating the number of households below the poverty line (numerator) divided by the total number of households. The data deployed here is the Monthly Per Capita Expenditure (MPCE), gathered from different rounds of the NSS. This exercise, however, is up till 2011-12, after which official data on MPCE are not available in public domain.

1.4.3 Multidimensional Poverty Index (MPI)⁷

Multidimensional poverty defines poverty in three dimensions at the individual level— health, education, and standards of living. This is similar to the HDI indicators but differs in its approach. It comes close to measuring several SDGs, which makes it unique. The concept is captured by a set of indicators in each dimension, each having a one-third weight in the index. The number of indicators and weights attached to each indicator in the MPI group is given in Table 1.2.

There are three (interrelated) indicators of MPI:

1. If a person is deprived in three or more (weighted) indicators, the MPI identifies them as “MPI poor” (**H**).
2. The extent or intensity of their poverty is the average share of the indicators that the poor people are experiencing (**A**).

Box 1.1 Example of MPI Calculation

- (a) In a population of 20 people, if 12 suffer from deprivation of at least three items (from a total of 10 identified deprivations), then the Poverty Headcount (H) will be: $12/20 = 0.60$ or 60 per cent.
- (b) If the first person suffers from six deprivations, second from eight, third from eight, fourth from nine, fifth from nine, sixth from nine, seventh from nine, eighth from nine, ninth from nine, tenth from eight, eleventh from nine and twelfth from eight, then the Intensity of Poverty (A)

⁶ Earlier, the HDIs in India (of 2002 and 2011) used the Monthly Per Capita Expenditure (MPCE) variable to substitute for Income. The UNDP, on the other hand, deploys Gross National Income, which in India's case would be similar to the state GDP for an exercise like this. The correlation coefficient between the income variable used here and the state GDP works out to be 0.70, and that between MPCE and state GDP works out to be 0.4. These suggest that using MPCE for income while constructing the HDI is not invalid.

⁷ See, Global Multidimensional Poverty Index 2018, and Alkire and Foster 2008

will be: $[(1/20) \times \{6/10 + 8/10 + 8/10 + 9/10 + 9/10 + 9/10 + 9/10 + 9/10 + 8/10 + 9/10 + 8/10\}] = 101/200 = 0.505$ or 50.5 per cent.

(c) $MPI = H \times A = 0.60 \times 0.505 = 0.303$, or 30.3 per cent

3. A product of (1) and (2) in the MPI: **MPI = H × A**

MPI calculations in this report are carried out by deploying data from the NFHS. Calculations have been made for 2005–06 and 2019-21 to present a temporal contrast.

1.4.4 Wealth Indices

A wealth index is a composite measure of a household’s cumulated assets to represent the living standards. Items in a wealth index include: a household’s ownership of selected assets, such as television, refrigerator, radio, cooker, electric fan, computer, mobile phone, sewing machine, animal-drawn cart, tractor, thresher, sewing machine, bed, table, mattress, and bicycles; electricity and materials used for housing construction; types of water

access, sanitation facilities, and types of cooking fuel. The bottom 40 per cent of the wealth class is considered poor or poorest wealth class, the next 20 per cent as “middle” and the top 40 per cent is considered the wealthiest class. Data for measuring wealth are obtained from the National Family Health Surveys (NFHS).

1.4.5 Inequalities

Gaps are observed between what people possessed earlier and what they possess now, i.e., temporal changes in possessions – whereby some have progressed more than others, resulting in relative or absolute inequality, measured temporally. Further, inequalities also exist in accessing basic services—access to schools, health services, food and nutrition, electricity, clean drinking water, and sanitation. In addition to this, there is gender-based inequality. Finally, other types of inequalities emerge in the form of opportunities. As economies grow, it is also necessary to examine newer types of inequalities that would affect the communities’ ability to utilise and participate in the new economy, such as the digital economy.

Table 1.2: Dimensions and indicators of Multidimensional Poverty

Dimensions of poverty	Indicator	Deprived if living in the household where...	Weight
Health	Nutrition	A child is undernourished.	1/6
	Child mortality	Any child under the age of 18 years has died in the five years preceding the survey.	1/6
Education	Years of schooling	No household member aged 10 years or above has completed six years of schooling.	1/6
	School attendance	Any school-aged child is not attending school up to the age at which he/she would complete class 8.	1/6
Standard of living	Cooking fuel	The household uses dung, wood, charcoal or coal to cook.	1/18
	Sanitation	The household’s sanitation facility is not improved or it is improved but shared with other households.	1/18
	Drinking water	The household does not have access to improved drinking water or safe drinking water within a 30-minute walking distance from home, round trip.	1/18
	Electricity	The household has no electricity.	1/18
	Housing	Housing materials for at least one of roof, walls and floor are inadequate: the floor is of natural materials and/or the roof and/or walls are of natural or rudimentary materials.	1/18
	Assets	The household does not own more than one of these assets: radio, TV, telephone, computer, animal cart, bicycle, motorbike, or refrigerator.	1/18

The main measures of inequality are: ranking of some wealth variables (temporally and spatially), judging distances from (or distribution of) key infrastructure items. In addition to data from the National Sample Survey and satellite photographs, data from two rounds of NFHS (2005-06 and 2019-21) have been used for assessing inequalities.

1.4.6 Primary field study

Like other human development reports, this report too deploys available data in public domain. However, in addition, a small primary field study is also undertaken in order to complement the analysis of quantitative data. IHD has conducted a focussed qualitative survey to elicit information on the subjective opinions of select ST groups on general issues of development and their aspirations. Qualitative information was collected through field studies employing household surveys, focus-group discussions, and key-informant interviews. The field surveys were conducted among ST households in select districts of Rajasthan (Banswara - 76 per cent STs and Pratapgarh - 63 per cent ST); Madhya Pradesh (MP: Dingori - 65 per cent STs and Anuppur - 48 per cent STs); and in 24 villages in seven districts of Jharkhand (Simdega - 71 per cent STs; Gumla - 69 per cent STs; Pashchimi Singhbhum - 67 per cent STs; Latehar - 46 per cent STs; Dumka - 43 per cent STs; Jamtara - 30 per cent STs; and Palamu). The field surveys in MP and Rajasthan were undertaken through mid-2019 and February-March 2020. In Jharkhand, the survey was conducted as a part of a larger survey on poverty by IHD. The field surveys covered 300 ST households in MP, 215 in Rajasthan, and 571 in Jharkhand—a total of 1,086 households.

Focus-group discussions and key informant interviews were conducted, besides household surveys, focusing on the respondents' socio-economic conditions, livelihoods, access to amenities and services, perceptions regarding development and governance issues, and their aspirations. Key findings of these are presented in the chapters on livelihoods, gender, governance and PVTGs. It should be mentioned that the main analysis of the Report is based on data from secondary sources and these primary surveys are only meant to complement the overall analysis.

1.5 Data Sources

Each chapter has a list of main data sources used in that chapter. In general, the different sources deployed are, the Population Census, the National Sample Survey reports, the National Family Health Surveys, the Agricultural Census of 2016, data that primary surveys generate, and historical records, among others. Some administrative data drawn upon are: Elementary District Report Cards, All India Survey on Higher Education (AISHE), National Crime Records Bureau (NCRB), Handbooks of Statistics, and Reserve Bank of India Reports. Various Management Information System (MIS) data are also referred to, which are drawn from the websites of the various Government of India ministers, such as Ministry of Health and Family Welfare, the Ministry of Rural Development, Department of Drinking Water and Sanitation, and Ministry of Jal Shakti, among others.

1.6 Structure of the Report

Chapter 2 of this report examines the overall human development status of STs. One main conclusion from the overall analysis is that “business as usual” will not enable the basic Sustainable Development Goals (SDG) goal of zero poverty for the STs to be met by 2030, and will also lead to increased inequalities in the new digital economy. Specific policies need to be undertaken to address these issues.

Chapter 3 sets out the status of access to infrastructure and basic services. These are public and private goods that are crucial for enhancing human development.

This is followed by **Chapter 4** on livelihoods. This analyses the pattern of ST livelihoods, the dependence on low-productivity agriculture, along with the high incidence of low-paid casual labour in the modern industrial sector. Rural livelihoods usually combine agriculture with gathering and sale of NTFPs, a commercial activity from which the returns are very low. At the same time, there has been somewhat large displacement of STs from their traditional livelihoods without the creation of new or alternative livelihoods. This in turn has resulted in poor education and health status; thus, impacting the entire human development scenario.

Chapter 5 deals with the educational status. It highlights the overall poor educational attainment of STs, with large numbers unable to complete school due to economic compulsions. It also shows the growing inequality in higher education.

Chapter 6 discusses the state of health of STs. It shows poor performance in terms of various nutritional indicators. Gender differences in this regard are also brought out in this chapter.

Chapter 7 discusses the gender aspect in highlighting current issues and status in achieving gender equality.

Chapter 8 deals with the special livelihood and development issues of former gather-hunters and nomadic communities, those categorised as PVTGs.

STs in Northeast India are often in majority in these states.

Chapter 9 talks about the developmental issues in the hill states and regions of the Northeast. It examines the possibilities of development based on comparative advantage, with adequate safeguards for the poor.

Chapter 10 talks about the issues of governance. Schedules 5 and 6 of the Constitution formulated different ways in which the ST-dominated areas would be governed. The chapter looks at the way the system of justice operates regarding ST persons and communities. It highlights ways in which specific indigenous technical knowledge and culturally specific capabilities, such as forest management, can be used in the management of natural resources. It also discusses the need for culturally appropriate development.

Chapter 11 concludes with a discussion on the way forward and the major policy directions that could be taken up to foster the development of ST communities.

Appendix 1.1: Details for Measuring Multidimensional Poverty

The multidimensional deprivation headcount (H) measures the number of individuals deprived depending on the cut-off point to consider as deprived (Alkire and Foster 2007). For example, there are 10 dimensions and if cut off point is 3 then individual is considered as multidimensional poor, i.e., if deprived in 3 or more dimensions.

$$y_k = 1 \text{ if } D_i \geq K$$

$$y_k = 0 \text{ if } D_i < K$$

The multidimensional deprivation headcount ratio was calculated as follows:

$$H = \frac{q_k}{n}, \text{ with } q_k = \sum_{i=1}^n y_k$$

Where;

q_k = number of households/ individuals affected by at least K deprivations;

n = total number of households/individuals included in the analysis;

y_k = deprivation status of a household/ individual 'i' depending on the cut-off point K;

D_i = number of deprivations each household/individual 'i' experiences;

K = cut-off point.

The intensity of poverty (A) or the breadth of deprivation captures the average weighted count of deprivations experienced by the multidimensional poor.

The Intensity of Poverty

$$(A) = \frac{\sum_{i=1}^{q_k} c_k}{q_k X_d} \text{ with } c_k = D_i * y_k$$

Where;

d = total number of dimensions considered per household/individual;

c_k = number of deprivations each multidimensionally deprived household/ individual 'i' experiences

Adjusted Multidimensional Poverty Index (MPI): $MPI = H * A$

C H A P T E R

2

Human Development
among STs: Seen
through HD Indices

Human Development among STs: Seen through HD Indices

2.1 Introduction

This chapter analyses the status of Human Development (HD) among the Schedule Tribes (STs), with the help of a set of indices developed to gauge HD. It aims to delineate the main dimensions of HD for the STs, identify key problems they face in trying to improve their socio-economic conditions, and propose policies to raise their HD status. More specifically, the focus is to assess the following:

- i. HD status of STs measured through the Human Development Index (HDI)
- ii. HD status seen through the Multidimensional Poverty Index (MPI) and Wealth Index (WI)
- iii. Inequality among STs and between STs and other social groups, and its implications on HD

In the previous chapter, it was observed that the STs are not a homogenous category; there is considerable diversity among them. While a tribe-specific analysis is not feasible in this report since it primarily analyses data at the macro level, attempt has been made to present a state/region-specific analysis in locations where STs dwell in notable numbers. These locations are mainly in the eastern, central, and western India, the Ghat regions in peninsular India, Ladakh, the Northeast and Andaman and Nicobar Islands.¹

1 Paucity of data on them in many places, however, does not permit constructing indices for judging their HD status. Other chapters in this report, however, go beyond indices to examine issues faced by these groups.

2.2 The Human Development Status of STs

2.2.1 Human Development Indices

Inclusive HD requires progress of (human) capabilities. Capabilities are a combination of what people do, e.g., their livelihood activities/jobs, and their overall condition, e.g., their health, educational status and so on. The statuses of “doing” and “being” are measured by the Human Development Index (HDI), which was initially developed by the United Nations Development Programme (UNDP) in 1990 and has undergone improvements over time. More recently, a Multidimensional Poverty Index (MPI) has also been developed, which is part of the family of HD indicators.² In this report, both HDI and MPI have been calculated for STs and non-STs, with state as the unit of analysis.³ Additionally, as stated earlier, some inequality analysis has also been attempted.

In any analytical discussion, there are three dimensions (or components) of HD that assume centrality: livelihoods (incomes and wealth), education and knowledge, and healthy life. Encompassing the entire discussion is the issue of inequality. In this report, effort is made to extend the standard notion of these dimensions to include cultural and technical knowledge and capability development.

2 The Oxford Poverty and Human Development Initiative (OPHDI) has contributed to developing these indices. See, <https://ophi.org.uk/policy/multidimensional-poverty-index/>

3 Some states have calculated HDI at the sub-district levels, for example, Uttarakhand. See, GUK and IHD (2018).

As mentioned in Chapter 1, the three main components of the HDI are:

- Standard of living/income
- Healthy life
- Knowledge/education

2.2.2 Human Development Index (HDI) – Earlier Attempts in India

The erstwhile Planning Commission had published India's first National Human Development Report (HDR) in 2002.⁴ An aggregate HD Index (for all social groups combined) was computed with data drawn from multiple sources: Census of India 1991, the National Sample Survey Organisation (NSSO), National Family Health Surveys (NFHS), and a few other official and independent sources. The data pertained to the early-1990s. In a 2006 report, IHD had calculated the *HDI for STs and aggregate* for nine states for early 1990s period, using the same data sources that the erstwhile Planning Commission had used. The broad points based on the *HDI scores from the 2006 report*, presented in Table 2.1 are:

1. HDI figures in Table 2.1 suggest that the HDI score of non-STs is higher than that of STs in all states other than Assam.
2. Assam tops the list in the ranking of states by the HDI score among STs, while Odisha lies at the **bottom. States that lie below the ST HDI national average are Madhya Pradesh, Rajasthan, and Odisha.** Generally, STs in the eastern, central, and western India belt rank low on this count.

2.2.3 Human Development Index for 2019-2021

As mentioned in Chapter 1 of this report, the HDI has been constructed using a modified approach compared to the UNDP's current approach, both to place it in the context of India and match data availability (see Chapter 1 and Box 2.1 below).⁵

Table 2.1: HDI Values of All and ST Populations, Select States, 1991

State	HDI – All	HDI – ST	Rank of the State (HDI – All)	Rank of the State (HDI – ST)
(1)	(2)	(3)	(4)	(5)
Andhra Pradesh	0.527	0.392	4	6
Assam	0.479	0.529	7	1
Gujarat	0.593	0.472	1	2
Karnataka	0.539	0.426	3	3
Madhya Pradesh	0.398	0.281	8	9
Maharashtra	0.592	0.409	2	4
Odisha	0.365	0.260	10	10
Rajasthan	0.496	0.340	6	8
West Bengal	0.518	0.397	5	5
India	0.504	0.383	-	7

Source: Sarkar S, S Mishra, H Dayal and Den Nathan (2006), *Scheduled Tribes in India*, New Delhi: Institute for Human Development

Here, these modified HDI Indices are consistent with theory but cannot be compared internationally since the database and goal posts are different.

Figure 2.1 presents the HDI scores of 22 states for STs and non-STs, for 2019-21. Table 2.2 presents the ranking of states by HDI scores and mark them as Low, Medium, and High. Figure 2.2 presents the gap in the HDI scores between STs and non-STs for the said period.

It may be noted that the indices are computed and presented for 22 states where ST population is significant and the remaining ones have few numbers of STs (see, Table 1.1 in Chapter 1 for state-wise ST population). Also, in some of the Northeast states) the sample sizes for non-STs are not sufficiently large to calculate U5MR.⁶

4 Ref: Planning Commission (2002) "National Human Development Report" New Delhi (http://hdr.undp.org/sites/default/files/reports/263/hdr_2002_en_complete.pdf)

5 Since HD is a flexible and emerging paradigm, construction of the HDI too does not follow a rigid approach. See, <http://hdr.undp.org/en/country-reports>

6 Calculation of U5MR, Longevity or MMR requires very large samples, and smaller states do not have that size of population.

Box 2.1 Methodological details

1. Recap from Chapter 1: The HDI computed as follows:

$$HDI = [Index_{(Health)} \times Index_{(Education)} \times Index_{(Income)}]^{1/3}$$

2. The UNDP method—primarily developed for international comparisons—measures Income with the help of the per capita Gross National Income. This has been substituted here by personal income (Monthly Per Capita Income – MPC) aggregated at the state level (the natural logarithm of it), obtained from the Periodic Labour Force Survey (PLFS) 2020-2021.

Validation: The Pearson correlation coefficient between the Income variable used here and the state GDP (used in the UNDP's approach) works out to be 0.70, and that between Monthly Per Capita Expenditure (that the erstwhile Planning Commission had deployed) and state GDP works out to be 0.4, suggesting that using MPC for Income seems valid.

In the absence of state-level data on longevity by social groups, data on Under-Five Mortality Rate (the reverse of it: 1,000 minus U5MR) substitutes it from the NFHS 2020-21. (See Appendix 2.1 for compatibility between the two variables).

Knowledge is measured by the number of years of schooling and the expected years of schooling (combine, with equal weightage), following UNDP's approach, which is computed from PLFS 2020-2021.

3. The maximum and minimum values for MPC and U5MR are five per cent higher and five per cent lower than the highest and lowest values respectively, seen in the data series *with permissibility for temporal comparison*. For Knowledge (both variables), the highest values are again five per cent higher than the highest achieved, while the lowest are at zero. The maximum and minimum are defined uniquely for this report and any comparison with other reports, other than in the ranking might be erroneous.

GOALPOSTS		
	Maximum (highest + 5%)	Minimum (lowest – 5%)
1000-U5MR	583.5	1027.5
Expected years of schooling	13.3	0.0
Mean years of schooling	9.98	0.0
MPC (natural log)	8.89	5.41

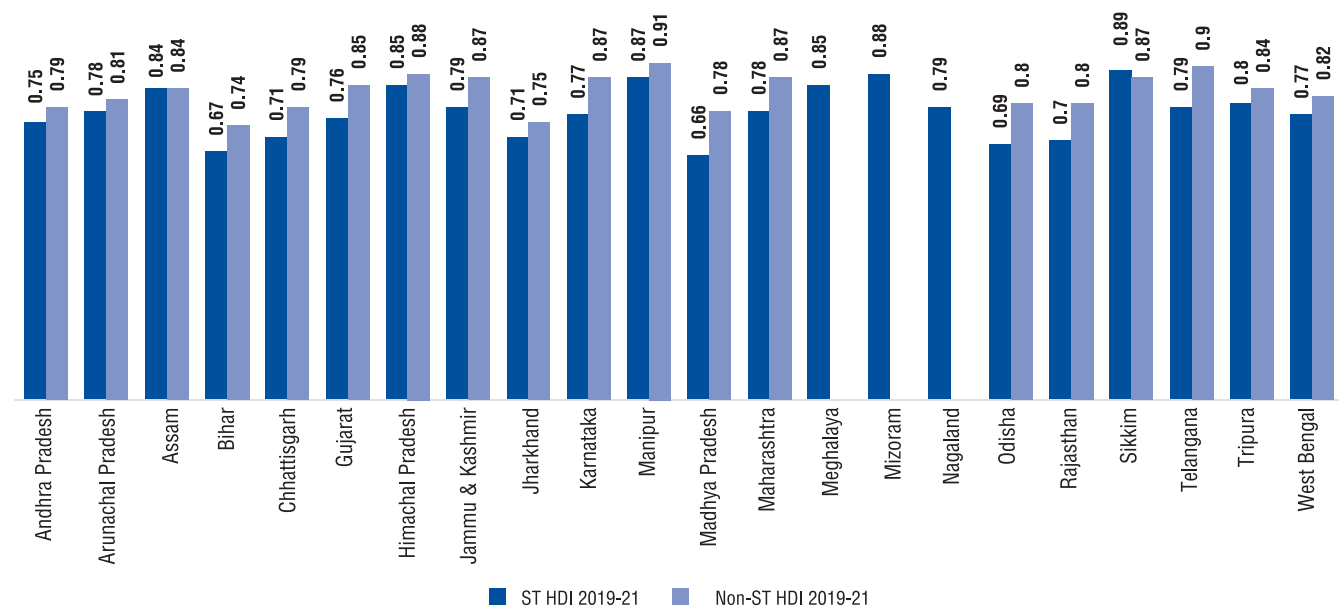
Note: Since comparisons are made for two years 2005-06 and 2019-21, the lowest and highest are taken from the pooled sample as per the laid-down method.

Note 2: The maximum and minimum are defined uniquely for this report and any comparison with other reports, other than in the ranking will be erroneous. Hence, this is referred to as Modified HDI

There are several observations that emerge from Figures 2.1, 2.2, and 2.3.

1. Among STs: Sikkim, Manipur, Mizoram, Assam, Himachal Pradesh, Tripura, and Manipur show the highest HDI coefficient scores (≥ 0.80) (Figure 2.1 and Table 2.2). About the states in the Northeast, one of the possible reasons for high values is that the STs are in sufficient numbers here and not geographically isolated, and/or they practise some form of self-rule (Sixth Schedule of the Constitution in parts of Assam and the Northeast).
2. Among STs: Odisha, Chhattisgarh, Jharkhand, Madhya Pradesh, and Bihar show the lowest HDI coefficient scores (Table 2.2). In absolute terms, Madhya Pradesh shows the lowest HDI score. Some of the poorest STs dwell in south-eastern parts of this state.

Figure 2.1: Human Development Index of STs and Non-STs by States, 2019-21

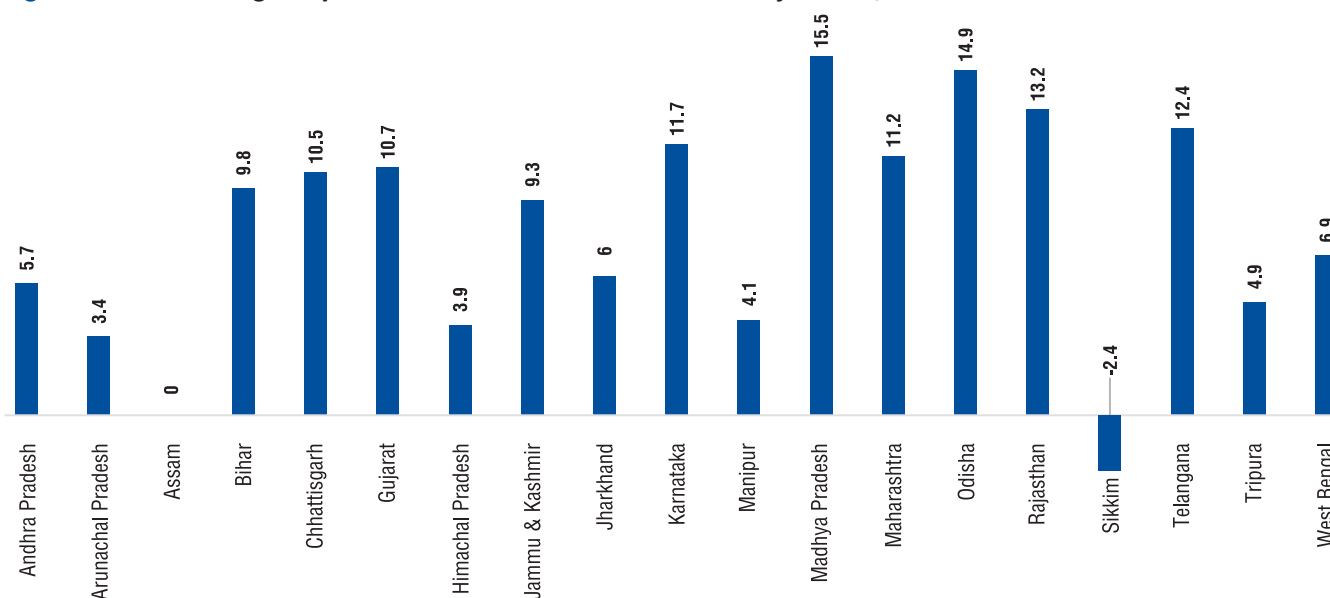


Note: Non-ST population is very low which is insufficient to compute indices for Non-STs in Meghalaya, Mizoram and Nagaland.

Table 2.2: Ranking of States by HDI, ST, 2019-21

HDI values	HDI ST	State
HDI Values (lower 6 states) <0.72	0.66	Madhya Pradesh
	0.67	Bihar
	0.69	Odisha
	0.70	Jharkhand
	0.70	Rajasthan
	0.71	Chhattisgarh
HDI values (middle 9 states) 0.72-0.79	0.75	Andhra Pradesh
	0.77	West Bengal
	0.78	Arunachal Pradesh
	0.78	Gujarat
	0.77	Karnataka
	0.78	Maharashtra
	0.79	Nagaland
	0.79	Telangana
	0.79	Jammu & Kashmir
HDI values (top 7 states) >0.80	0.80	Tripura
	0.85	Meghalaya
	0.84	Assam
	0.85	Himachal Pradesh
	0.87	Manipur
	0.88	Mizoram
	0.89	Sikkim

- STs and non-STs: The HDI score is higher among the non-STs compared to the STs in all states, except Sikkim, with substantial difference in the HDI values between STs and non-STs. In Assam both ST and non-ST have same HDI score, (Figure 2.2).
- The gap between the HDI scores of STs and non-STs is the largest in Madhya Pradesh followed by Odisha (Figure 2.2). The gap is also notably high in Chhattisgarh, Gujarat, Rajasthan, Karnataka, Maharashtra and Telangana.
- In the North-eastern states and Himachal Pradesh, the HDI values of STs and non-STs are close to each other, implying that both STs and non-STs are in similar condition (both in poverty and wellness).
- There is a reasonably high association between the HDI scores of STs and non-STs (correlation coefficient = 0.87), suggesting that to an extent overall underdevelopment or development drag down or pulls up *all groups* together.
- Going beyond these data, it is *selectively* observed that in some states where the HDI is high the population density and fertility rate are low (much of Northeast, Jammu and Kashmir, Himachal Pradesh), and the vice-versa (Bihar).

Figure 2.2: Percentage Gap of HDI between STs and Non-STs by States, 2019-2021

Note: $\text{Gap} = \frac{[\text{HDI value (non-ST)} - \text{HDI value (ST)}]}{[\text{HDI value (non-ST)} + \text{HDI value (ST)}] / 2} \times 100$

2.2.4 Component-specific Analysis

The HDI has three components: income, education and health, as explained above. Analysis of the components of the HDI helps in identifying the evenness or otherwise in people's capabilities across the states. In the process, such an analysis also helps uncover the extent of (dis)parity within groups (STs in this case) and between groups (i.e., between STs and non-STs).

Table 2.3 shows the component-score-specific ranking of states to reflect upon the convergence and/or divergence of achievements between the three components for STs.

1. In the "Low Score" category, three states are common in each of the three components: Madhya Pradesh, Odisha, and Bihar. At the other end, Telangana, Tripura, Manipur and Himachal Pradesh appear in the "High Score" category, across all the three components. The other states show uneven performance on different components.
2. Regarding the spread of the scores across the states for STs, the ratio of the smallest to largest component-score for Health is 1.17, for Education it is 1.58, and for Income it is 1.44. Thus, there is an uneven spread of the three components across states.

3. There is not a high association between the three development indices, namely Income, Health and Education. A rank correlation analysis suggests that states doing well on count are not necessarily doing well on other counts. Typical example: Andhra Pradesh is low on Education Index, high on Health Index and middle on Income Index.

Implication: Across states, the component-scores are not evenly matched against each other, i.e., there are states with "poor health and high income", or "low education and good health". Also, income and education differences across states are wide, and require bridging to bring about greater regional parity in HD for the STs.

Component-scores between STs and non-STs: Table 2.4 shows the HDI component-score gap between STs and non-STs across states, for all the three components. On aggregate, the component scores of non-STs are higher than those of STs, for all the three components. The gap between the two is the least in Health and most in Education, followed by Income. The component-score gap in Health is the highest in Andhra Pradesh; in Education it is highest in Madhya Pradesh; and in Income it is the highest in Chhattisgarh. The uneven gaps have a pattern: the central Indian states generally exhibit larger gaps compared to the Northeast and Hilly states.

Table 2.3: Ranking of States by Component-Score of HDI, ST, 2019-21

S.no	MPCI Index	Health Index	Education Index
1	Madhya Pradesh (0.66)	Arunachal Pradesh (0.76)	Madhya Pradesh (0.55)
2	Bihar (0.68)	Bihar (0.78)	Bihar (0.57)
3	Jharkhand (0.68)	Chhattisgarh (0.79)	Odisha (0.60)
4	Odisha (0.69)	Odisha (0.79)	Rajasthan (0.60)
5	Chhattisgarh (0.69)	Nagaland (0.79)	Andhra Pradesh (0.62)
6	Rajasthan (0.70)	Jharkhand (0.81)	Jharkhand (0.64)
7	West Bengal (0.75)	Madhya Pradesh (0.82)	Chhattisgarh (0.66)
8	Gujarat (0.78)	Rajasthan (0.82)	Gujarat (0.68)
9	Andhra Pradesh (0.78)	Jammu & Kashmir (0.83)	West Bengal (0.68)
10	Maharashtra (0.78)	Gujarat (0.84)	Karnataka (0.69)
11	Karnataka (0.78)	Assam (0.85)	Maharashtra (0.71)
12	Nagaland (0.79)	Maharashtra (0.85)	Tripura (0.71)
13	Arunachal Pradesh (0.80)	Telangana (0.86)	Telangana (0.72)
14	Telangana (0.81)	Karnataka (0.86)	Jammu & Kashmir (0.74)
15	Jammu & Kashmir (0.81)	Meghalaya (0.86)	Arunachal Pradesh (0.79)
16	Tripura (0.81)	Andhra Pradesh (0.86)	Nagaland (0.80)
17	Assam (0.84)	Mizoram (0.87)	Himachal Pradesh (0.81)
18	Meghalaya (0.85)	Himachal Pradesh (0.88)	Assam (0.83)
19	Himachal Pradesh (0.85)	West Bengal (0.88)	Meghalaya (0.84)
20	Manipur (0.87)	Manipur (0.88)	Mizoram (0.85)
21	Mizoram (0.92)	Tripura (0.89)	Sikkim (0.85)
22	Sikkim (0.95)	Sikkim (0.89)	Manipur (0.87)

Note: Numbers in the brackets are the component values. Red colour implies "low score"; yellow: "middle score"; and Blue: "high score".

Table 2.4: Percentage Difference in the Dimensions of HDI between STs and non-STs by States, 2019-2021, 17 States

	% difference MPCI-Index	% difference Health-Index	% difference Education Index
Andhra Pradesh	1.17	20.28	2.77
Assam	0.19	0.88	-1.38
Bihar	1.99	3.53	20.69
Chhattisgarh	19.24	6.64	17.04
Gujarat	7.77	1.54	17.29
Himachal Pradesh	2.08	-0.67	10.45
Jammu and Kashmir	7.87	3.64	11.31
Jharkhand	13.43	3.75	12.48
Karnataka	11.71	1.30	18.15
Manipur	6.33	-2.10	8.96
Madhya Pradesh	13.34	2.00	30.95
Maharashtra	10.33	1.96	20.21
Odisha	9.36	12.15	24.59
Rajasthan	13.93	4.40	20.47
Telangana	11.24	1.59	8.77
Tripura	2.23	-4.08	12.52
West Bengal	9.03	0.54	14.62
India	9.56	2.20	16.90

Gaps in components by social groups = $\frac{[(\text{Component } I_{NST} - \text{Component } I_{ST}) / (\text{Component } I_{NST} + \text{Component } I_{ST})] * 100}{I = \text{Index}; ST = \text{Scheduled tribes}; NST = \text{Non-scheduled tribes}}$

2.2.5 Inequalities in Income and Impact on HDI

Income or other inequalities can result in loss of welfare and HD. The HD paradigm permits to factor-in inequality in distribution of HDI's components and accordingly measure the extent of loss in HD, due to this Inequality emerging from unequal distribution of income alone is accounted for here, as it is impractical here to capture inequality in education or in health. It is believed, though, that income inequality would to an extent affect education and health. The Income dimension (in this case, MPCI) is moderated by the Gini Coefficient of Inequality

(from within the same data series), such that higher is the inequality, lower is the value of MPCII in the Index and the vice-versa. The Income Dimension is measured as, MPCII X (1 – G), where G is the Gini Coefficient of that state measured from the same MPCII data series and X is the multiplication sign.⁷

Table 2.5: Loss in HDI 2019-21 due to Income Distribution among STs, by (select) States

State	Percent Loss
AP	5.59
Assam	5.35
Bihar	3.76
Chhattisgarh	4.75
Gujarat	5.26
HP	6.10
J&K	5.73
Jharkhand	5.56
Karnataka	4.90
Manipur	4.95
MP	5.08
Maharashtra	5.82
Odisha.	4.61
Rajasthan	9.75
Telangana	4.40
Tripura	4.42
WB	4.46
India	6.15

Formula: $[(\text{HDI} - \text{Income-Inequality Adjusted HDI})/\text{HDI}] \times 100$

Table 2.5 shows the loss in HDI values of STs, when income inequalities are accounted for (as in 2019-21). The distributional component has variously reduced the HDI value: on aggregate, by about six per cent, though it varies from four per cent to

10 per cent across states. The gap is the highest in Rajasthan, which also is not one of the high-performing HDI states for STs. In contrast, the ST-HDI is least impacted by the distributional correction in Bihar: understandably so, because when the overall incomes are low, the gaps cannot be large since there is always a lower ceiling in wages and earnings below which work (for survival) is not possible.⁸

2.2.6 HDI Status of STs over Time

As the Indian economy has grown at six per cent to eight per cent over 2004-05 and 2019-21, have HDI scores of STs also gained momentum?

Effort has been made to compare the HDI for 2019-21 temporally with the HDI of 2015-16 and HDI of 2004/5-06. For 2015-16 data from NFHS-4 and PLFS-1 have been carried out and for 2019-21, NFHS-5 and PLFS-4 have been carried out. For 2005-06, data from NFHS-3 and the 61st Round of the NSS (2004-05) have been carried out. However, since there is some data incomparability between 2004-05 and the later years.⁹ Comparative numbers of HDI indices for 2015-16 and 2019-21 are presented in Figure 2.3.

Figure 2.3 suggests that for STs at the all-India level there has been a gain of some 11 percentage points in HDI for STs through 2016-21. Some states like Chhattisgarh, Jharkhand, MP, Odisha and West Bengal show relatively large improvement, implying that there has been some catching up. The Coefficient of Variation in the HDI Coefficient across states has reduced from about 14 per cent to about eight per cent, conforming the “catching-up hypothesis”.

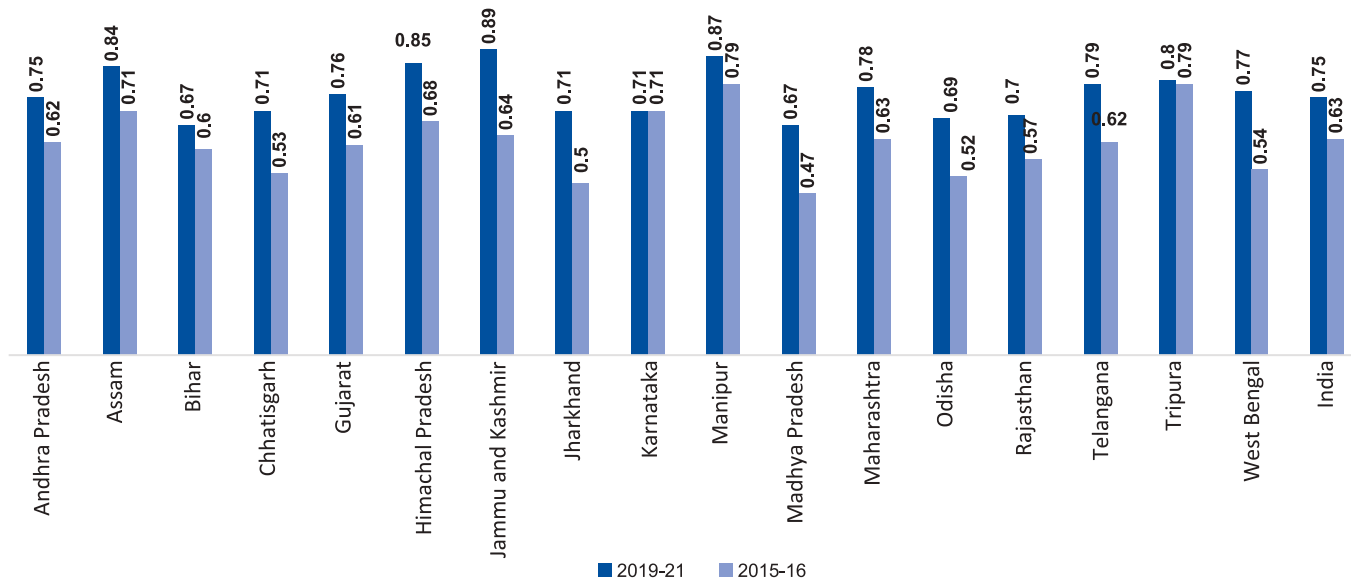
These data indicate that while there has been an increase in the HDI scores for the STs in all the states over time, though the increase has been unequal across states (Figure 2.4).

⁷ The Gini Coefficient is a measure of the distribution of income across a population. The coefficient ranges from 0 (or 0%) to 1 (or 100%), with 0 representing perfect equality and 1 representing perfect inequality. The erstwhile Planning Commission’s HDR of 2002 also deployed the Gini Coefficient to moderate incomes.

⁸ This aspect is well documented in the Efficiency Wage Theories or Living Wage Theories. See, <https://www.ethicaltrade.org/issues/living-wage-workers/wages-and-purchasing-theories>

⁹ In 2004-05, income data was unavailable, so the MPCII series was reconstructed from 2004-05 Monthly Per Capita Expenditure (MPCE) data, using the 2020-21 MPCII to MPCE ratio. To improve comparability, the GDP deflator was applied. The comparison involves 12 states due to temporal and data compatibility issues. Keep in mind the data’s incompatibilities when making comparisons.

Figure 2.3: HDI Values for 2015-16 and 2019-21, STs by 17 States



Inferences

The HDI Coefficient values have improved over time for the STs. This holds true across all the states. These improvements seem to have resulted from the following:

1. As in 2019-21, the enrolment ratios in schools are high with Gross Enrolment Ratios at about near 100 per cent, which is because of varied government efforts like Sarva Shiksha Abhiyan, Ashram Schools, etc.^{10,11} Though there is a lot to be desired in the sector, efforts have been made to especially target ST areas for primary education, which have yielded results. More details on this are present in Chapter 5 of the report.
2. NFHS data suggest that institutional (child) deliveries was almost 89 per cent in 2019-21 for total population whereas for the ST and non-ST the proportion is 82 percent and 90 percent respectively. which implies that childcare and visits to health centres have helped reduce child mortality (and by proxy, increased longevity).¹²

These aspects are discussed in Chapter 6 in detail.

3. Income and livelihood are the two key problem areas. The issues among the STs are about low-quality employment and hence, low income. More on this will be discussed in Chapter 4.
4. A suggestion to control population is also important for reducing economic dependency ratios and raising per capita incomes. This aspect is discussed of Chapter 4 of this report.

2.3 Multidimensional Poverty

2.3.1 Income Poverty

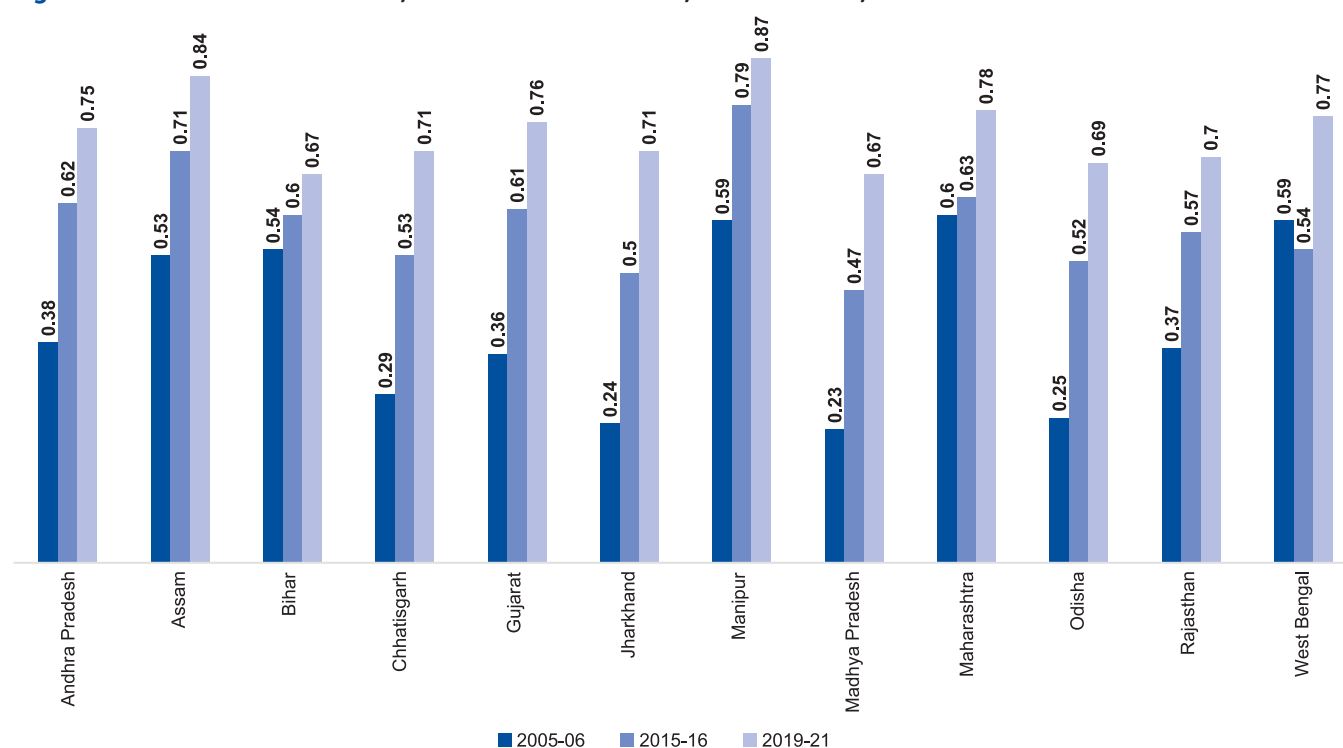
There are at least two measures of poverty in the literature—the Income/Consumption Measure (and all its variants like depth and intensity of poverty) and the Multidimensional Measure of Poverty (and its components). The former, based on consumption expenditure data, is well-researched and data series have been constructed up to 2011-12. Data on consumption expenditure have not been collected since then. The main, though not exclusive, discussion here will be on Multidimensional Poverty Index (MPI).

10 This number holds for both STs and others. Source: <https://knoema.com/atlas/India/topics/Education/Primary-Education/Gross-enrolment-ratio-in-primary-education>

11 <https://www.aicte-india.org/reports/overview/Sarva-Shiksha-Abhiyan>. See also, <https://knoema.com/atlas/India/topics/Education/Primary-Education/Gross-enrolment-ratio-in-primary-education>

12 U5MR reduced from 74 to 50 through 2005-06 to 2015-16 as per the

two NFHS rounds.

Figure 2.4: HDI Values 2004-06, 2015-16 and 2016-19, Select States, STs

Based on the National Sample Survey Office (NSSO) consumption data, trends up to 2011–12 are presented in Table 2.6.

Table 2.6: Trends in Income/Consumption Poverty Ratios (Per Cent) among Social Groups, 1993-94 to 2011-12

Social category	2004–05	2009–10	2011–12	Percentage point reduction, 2004–05 to 2011–12
ST	60.1	45.6	40.6	19.5
All	37.2	29.8	21.9	15.3
Gap between ST and All	22.9	15.8	18.7	

While in absolute terms, the STs are poorer compared to the aggregate, the rate of poverty reduction among them was a little higher compared to the aggregate through the years 2004-05 to 2011-12.

2.3.2 Multidimensional Poverty Index (MPI)

Multidimensional poverty assesses poverty at the individual level. MPI first defines a set of core

dimensions, and then a set of respective indicators for each dimension. There are indicators for health, education, and standard of living, each having an equal weight of one-third in the index. As per the international practice, if someone is deprived in at least three out of a total of 10 indicators, the paradigm identifies them as “MPI poor”. The extent or intensity of their poverty is measured by the percentage of deprivations they are experiencing. Following the identification of the dimensions and indicators, the weights assigned to each dimension and indicator are critical in multidimensional poverty analysis. All these aspects are explained in Box 1.1 and Table 1.1 (Chapter 1). For quick recall, refer to Box 2.2.

Box 2.2 A Brief on MPI

There are three (interrelated) indicators of MPI

1. If a person is deprived in a third or more (weighted) indicators, the MPI identifies them as “MPI poor” (H), also referred to as headcount poor.

2. The intensity of their poverty is the average share of the indicators that the poor people experience (A).

3. A product of (1) and (2) above in the

$$\text{MPI: MPI} = \text{H} \times \text{A}$$

The MPI measure does away with the Income as a variable to measure poverty, thus making the statistical exercise robust. However, it has the problem of grouping "output" and "outcome" variables together.

Table 2.7 also shows the incidence of poverty or headcount ratio (HCR), intensity and MPI for STs and non-STs based on 2019-21 data. It covers 21 states, i.e., more than those discussed in the sub-section on HDI owing to greater data availability. Among

the STs, the headcount poverty rate (HCR) was 31.8 per cent in 2019-21; i.e., this proportion of the ST population was poor in on the basis of this count, which is almost twice the non-ST average. The MPI value among Scheduled Tribes in 2019-21 was about 11.7 per cent compared to about 6.6 per cent for non-STs.

The central and eastern parts of the country, namely the states of Madhya Pradesh followed by Odisha, Jharkhand, and Bihar have the highest HCR among the ST populations. In the western parts of the country, the HCR among the STs was the highest in Rajasthan, while the gap between HCR among STs and non-STs was high in both Gujarat and Maharashtra. In the southern region, Andhra Pradesh has a high HCR among the STs. In the Northeast states, only Meghalaya shows a relatively high HCR among the STs. The HCR ratio in the Northeast

Table 2.7: Poverty Measured by MPI Approach, ST and non-ST, 2019-2021, Select States

NFHS-5: 2019-21									
	ST	Non-ST	Total	ST	Non-ST	Total	ST	Non-ST	Total
	Headcount Ratio			Average Intensity of Poverty			MPI		
All India	31.8	15.4	17.2	0.37	0.43	0.44	11.7	6.6	7.6
Andhra Pradesh	36.7	6.7	8.0	0.42	0.42	0.46	15.5	2.8	3.7
Arunachal Pradesh	10.0	17.3	11.5	0.41	0.38	0.39	4.1	6.5	4.5
Assam	15.0	18.6	18.0	0.47	0.43	0.43	7	8	7.8
Bihar	47.2	34.4	35.0	0.50	0.46	0.46	23.7	15.9	16.2
Chhattisgarh	30.3	11.8	17.5	0.53	0.46	0.57	16.1	5.5	9.9
Gujarat	31.0	10.5	14.1	0.45	0.45	0.48	13.8	4.7	6.8
Himachal Pradesh	7.9	4.6	4.9	0.31	0.39	0.39	2.4	1.8	1.9
Jammu & Kashmir	17.9	5.0	6.3	0.44	0.48	0.46	7.9	2.4	2.9
Jharkhand	43.9	25.6	30.6	0.47	0.46	0.47	20.5	11.8	14.5
Karnataka	15.2	7.6	8.6	0.50	0.45	0.47	7.6	3.4	4
Madhya Pradesh	42.2	17.7	23.0	0.47	0.45	0.47	20	7.9	10.7
Maharashtra	27.7	5.7	8.5	0.45	0.48	0.51	12.5	2.7	4.3
Manipur	16.6	10.2	12.1	0.45	0.47	0.51	7.5	4.8	6.2
Meghalaya	28.3	11.7	27.6	0.49	0.66	0.49	13.8	7.7	13.6
Mizoram	5.2	21.5	5.9	0.63	0.56	0.63	3.3	12	3.7
Nagaland	14.3	12.3	14.3	0.51	0.43	0.50	7.2	5.3	7.2
Odisha	42.7	12.7	20.6	0.47	0.44	0.47	20	5.6	9.7
Rajasthan	32.4	13.7	16.1	0.46	0.45	0.46	14.9	6.2	7.5
Sikkim	4.2	3.3	3.6	0.52	0.49	0.53	2.2	1.6	1.9
Tripura	24.9	11.8	16.3	0.49	0.48	0.50	12.1	5.7	8.1
Telangana	16.7	6.7	7.7	0.49	0.46	0.47	8.1	3.1	3.6
West Bengal	35.1	13.8	16.1	0.45	0.43	0.45	15.7	6	7.2

states is generally lower compared to those in central and peninsular India. The spatial patterns seen in the HCR and MPI are similar, so a separate data description is not deemed essential.

At least four observations emerge from Table 2.7.

1. The HCR and MPI are significantly correlated for both STs and non-STs (correlation coefficient is 0.98). Thus, the depth of poverty and being below poverty line are features that similarly occur across states.
2. The poorest states by HCR are Bihar, Jharkhand, Madhya Pradesh and Odisha (HCR >40%). These are poorest by MPI as well (MPI >=20 per cent). A similar typology holds for the more affluent states.
3. The HCR and MPI for STs are higher compared to the corresponding values for the non-STs in all states other than Arunachal Pradesh and Assam.

These findings resemble those on HDI, discussed earlier, suggesting that both these sets of HD indices support the same inferences.

2.3.3 Temporal Comparisons of HCR and MPI

HCR and MPI have been computed for 2005-06, 2015-16 and 2019-21 for comparing the status of poverty among STs over time. Table 2.8 presents the percentage changes in HCR and MPI respectively, through the three time periods for all-India. Between 2005-06 and 2015-16, HCR reduced by about 33 per cent among STs and 45% among non-STs. Between 2015-16 and 2019-21, HCR reduced by about 29 per cent among STs and 33% among non-STs. Between

2005-06 and 2019-21 (the whole period), HCR for STs reduced by about 52.5 per cent while for non-STs it reduced by about 63.3 per cent. In each period, thus, while there has been a sharp reduction in HCR, the non-STs' performance has been better than that of STs. However, there has been a sharper decline in MPI compared to HCR in each period. Such trend may have been a result of the reduction in *the intensity of poverty* over time.

Figure 2.5a shows the reduction in poverty (HCR and MPI) between 2015-06 and 2019-21. Seen state-wise, the Northeastern states have generally performed better in poverty reduction than states in central/peninsular India. The states of Andhra Pradesh, Bihar, Gujarat, Jharkhand, Madhya Pradesh and Odisha show less reduction in poverty rates (HCR or MPI) compared to others.

Figure 2.5b shows the reduction of the head count poverty rate (HCR) among STs between 2015-16 and 2019-21. There has been varied reduction in the poverty head count ratio ranging from a high of about 73% (Himachal Pradesh) to a more modest numbers of Meghalaya and Andhra Pradesh, and to an extent Tripura. Inter-state differences, thus, are large. The MPI figures are similar, hence, not discussed separately.

2.3.4 Relative Contribution of Components of Poverty (MPI)

Figure 2.6 presents data on the contribution of different components of MPI for 2019-21. For the ST populations, from among the 10 indicators, the deprivation of nutrition contributes about 27 per cent. The other indicators, in descending order

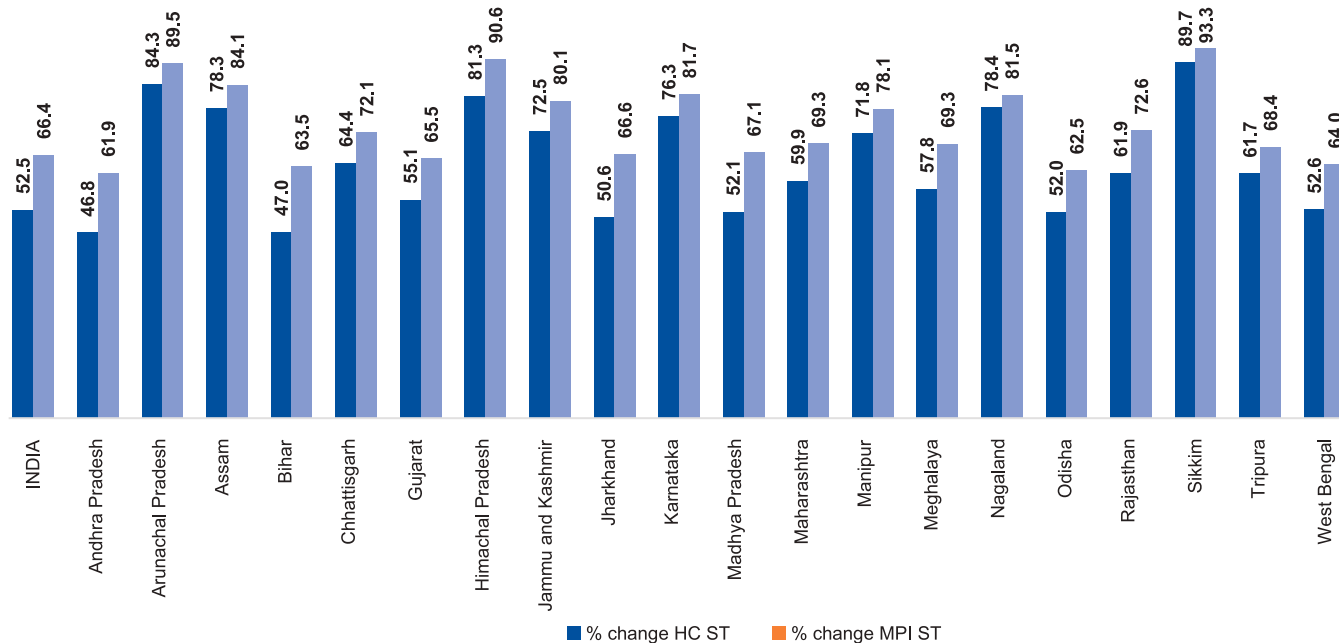
Table 2.8: Poverty by HCR and MPI, and Percent Change, ST and non-ST, 2005-06, 2015-16 and 2019-21

	HCR-ST	MPI-ST	HCR-Non-ST	MPI-Non-ST
2005-06	67.0%	34.8%	42.0%	20.6%
2015-16	45.0%	25.2%	23.0%	9.2%
2019-21	31.8%	11.7%	15.4%	6.6%
Change 2005-06 to 2015-16 (%)	32.8	27.7	45.2	55.3
Change 2015-16 to 2019-21 (%)	29.3	53.6	33.0	28.3
Change 2005-06 to 2019-21 (%)	52.5	66.4	63.3	67.9

Percent change has been calculated as: $\frac{[\text{poverty rate (earlier period)} - \text{poverty rate (later period)}]}{[\text{Poverty rate (earlier period)}]} \times 100$

HCR is Headcount Ratio and MPI is Multidimensional Poverty Index. Sources: NFHS, different Rounds

Figure 2.5a: Percentage reduction in HCR and MPI between 2005-06 and 2019-21 among STs



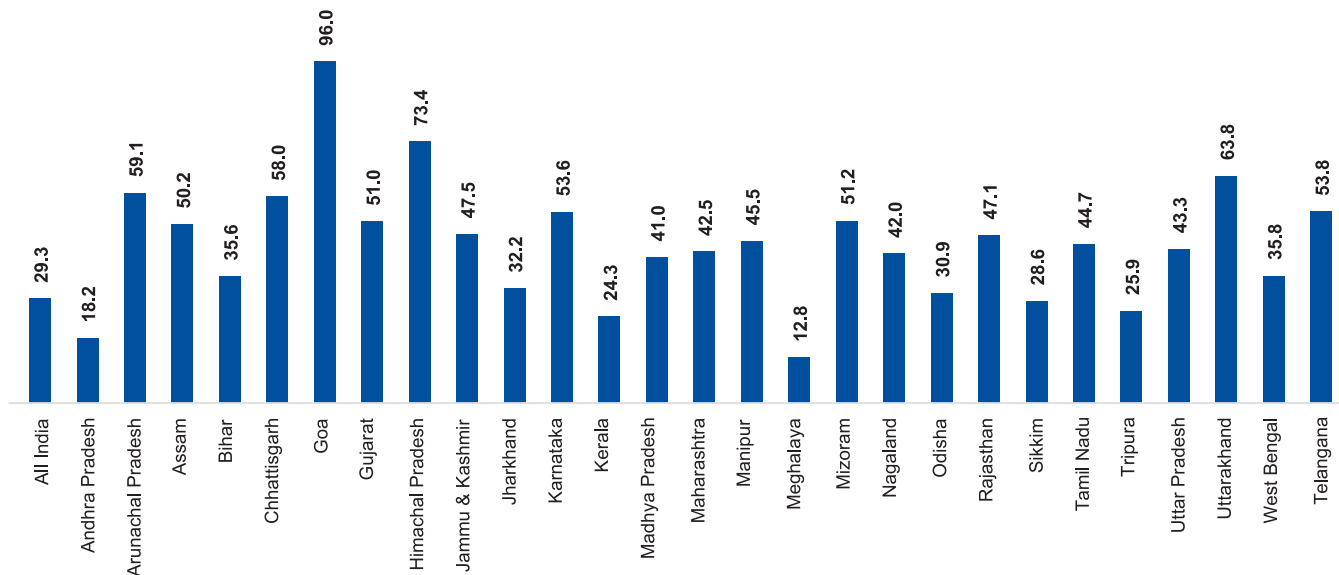
Note 1: Percentage changes are calculated as $[(HCR_{06} - HCR_{19-21})/HCR_{06}] * 100$ and $[(MPI_{06} - MPI_{19-21})/MPI_{06}] * 100$. Note2: Telangana was not a separate state in 2004-05; hence not included in Table 2.7 or this figure.

of their contribution, are education, housing and cooking fuel.

Education and nutrition are also important contributors to improving human development and reducing poverty. These need utmost priority both in addressing poverty and human development

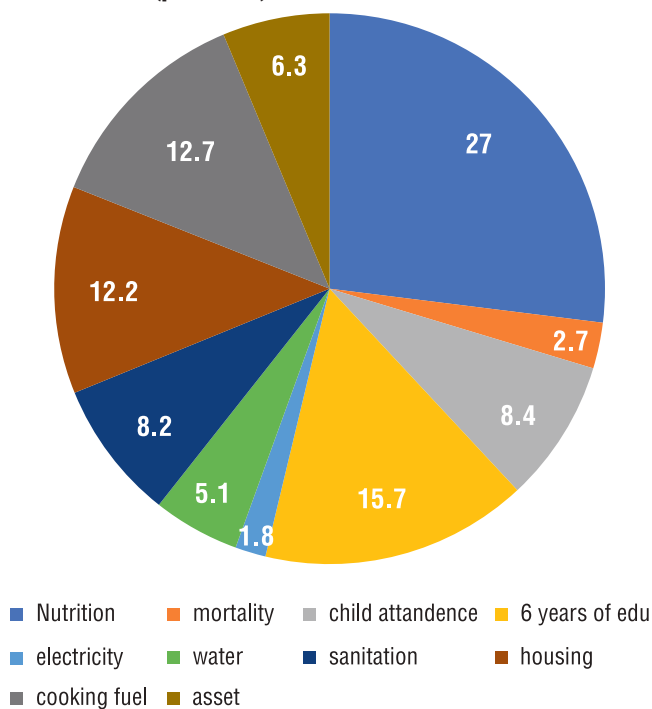
challenges among the STs. The government of the day has launched various flagship programmes for schooling, cooking gas, toilets, and housing, which suggests that the present policies are on the right track. These are discussed in the subsequent chapters.

Figure 2.5b: Percent poverty reduction (head count ratio) between 2015-16 and 2019-21, among STs, States



Formula: $[(HCR_{2015-16} - HCR_{2019-21})/(HCR_{2015-16})] * 100$

Figure 2.6: Contributions of indicators to Multidimensional Poverty among STs (per cent) 2019-21 – All India



Source: IHD's calculations based on NFHS-5, 2019-21.

Box 2.3 HCR and Consumption Poverty

Poverty rates measured by HCR seem to be similar to those measured by the Income/Consumption method. The MPI too shows some correspondence with the Poverty Gap. This again iterates the point, for both STs and non-STs, that not only ranks but absolute percentages between different poverty measures are similar. As is for the HDI, poverty is higher in states where the HDI is lower and vice-versa.

Finally, population density and fertility rate matter. Some low population density/fertility rates (Northeast) states show lower poverty and the vice-versa (Bihar).

2.4 Wealth Poverty (WP) Indices¹³

The Wealth Index, constructed from the NFHS database, is a composite measure of a *household's*

¹³ The NSS, across different rounds, collects data on housing, livestock, schooling, access to infrastructure, etc. and the NFHS presents many of these in a single round. Hence, NFHS data are used.

cumulative living standard in terms of the assets owned. It is calculated based on a household's ownership of select assets, such as television, refrigerator, radio, cooker, electric fan, computer, mobile phone, sewing machine, animal-drawn cart, tractor, thresher, sewing machine, bed, table, mattress, and bicycles; electricity, materials used for housing construction; types of water access, types of sanitation facilities, and types of cooking fuel used. The NFHS quantifies each of the assets, aggregates them, and assigns a value to them on a scale. A data shortcoming is that it is impossible to determine whether a person is poor or not if, for example, s/he has three tractors and no computer, or five computers and no tractor. The bottom 40 per cent in the wealth class are considered to be the poorest class, the next 20 per cent is the middle class, and the top 40 per cent is the most affluent class.

Figure 2.7 presents data on wealth poverty across 21 states among STs and non-STs for 2015-16. Seen from this figure, wealth poverty among STs is again the highest in the states in central India, followed by states in western India and then comes the states in northern India. Most states in the Northeast are well-placed. Next, the gap between ST and non-ST households in terms of the share of poorest households by the wealth index (not presented here) is highest in Madhya Pradesh, Gujarat, and Rajasthan, with Chhattisgarh and Maharashtra close by. The smallest gap is in Assam, Bihar, Karnataka, Himachal Pradesh, and the Northeast. The pattern in WP and MPI is similar, thereby the same explanations stated earlier holds here too.

MPI is better visualised at the district level, as disaggregation of data increases precision (Figures 2.8). This map shows that STs in the central and eastern parts of the country are poorer compared to STs in other parts of the country. STs in the Northeast, Jammu and Kashmir and to an extent in Karnataka are better off.

2.5 HDI and MPI

In principle, both the development indicators, i.e., HDI and MPI consist of the same or similar dimensions. The indicators and variables within the indices, though, are different. On standards of living, HDI deploys income while MPI deploys household amenities like cooking gas, electricity, etc.; for life-

Figure 2.7: Percentage of poor by wealth poverty, 2015-16

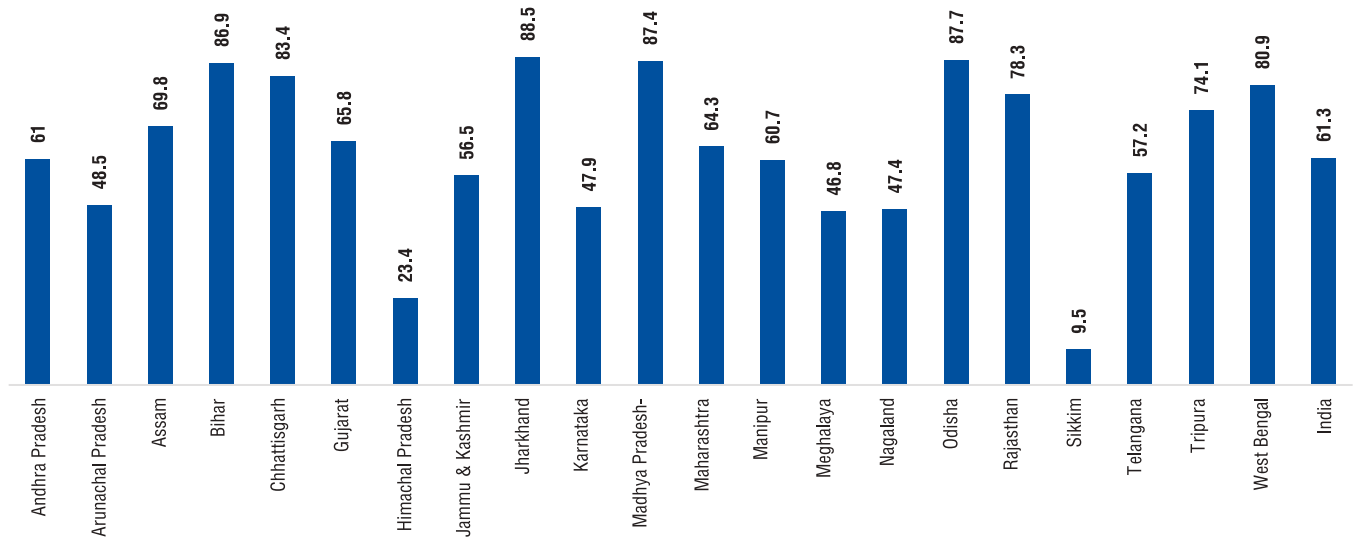
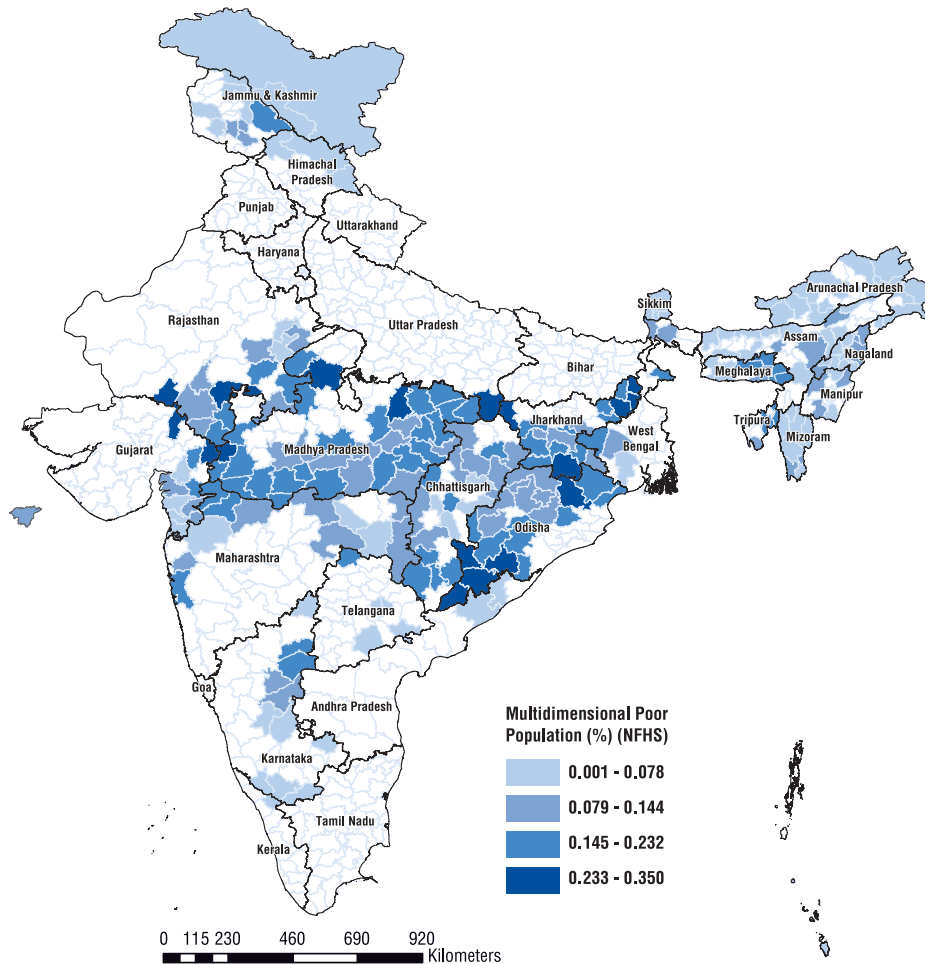
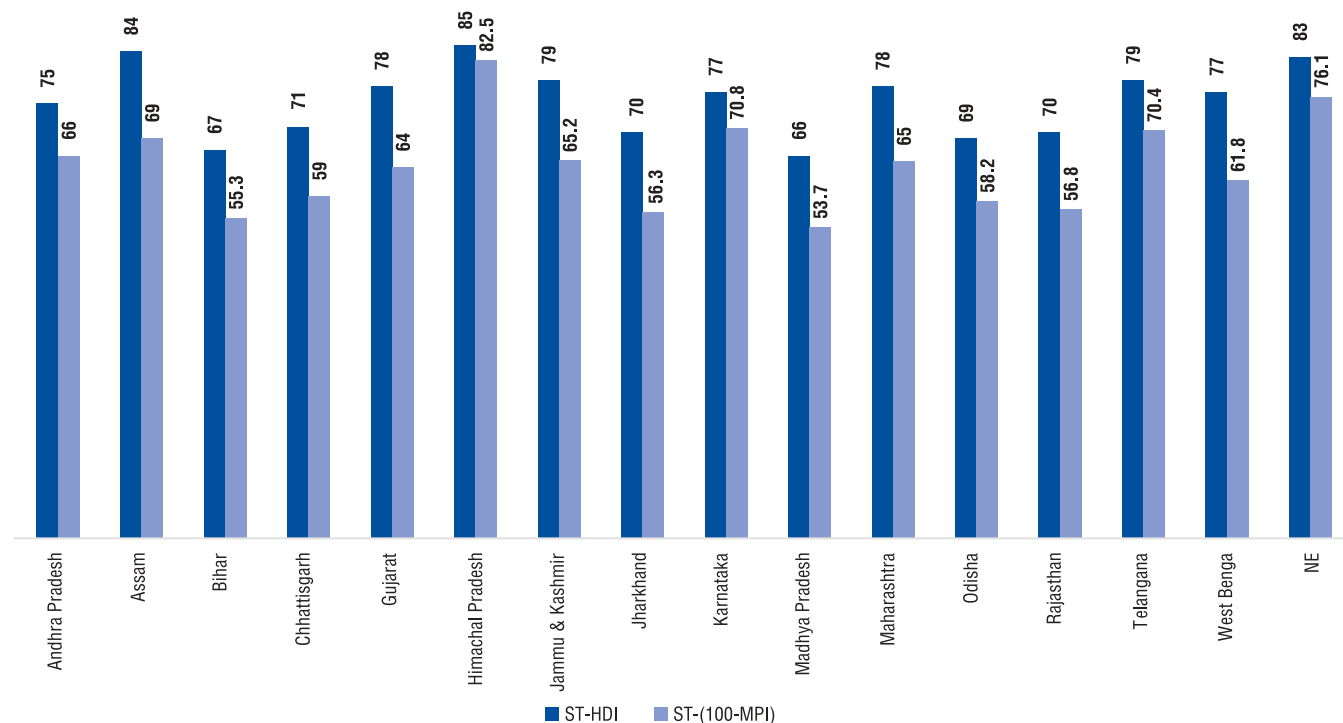


Figure 2.8: District-wise poor by MPI-ST 2019-21



Note: District with more than 10 percent of the ST population are considered Areas in white do not fall in this category and are not attended to. Source: Calculated from NFHS 2019-21 database

Figure 2.9: HDI 2019-21 and (1-MPI) 2019-21, ST, states [Correlation coefficient = 0.91]

Blue: HDI-ST; Red: (1-MPI), ST

quality indicators, HDI deploys U5MR (the reverse of it) while MPI additionally brings-in child nutrition; while on education HDI deploys mean years of education and expected years of education, while MPI uses enrolment rates and years of schooling. What is the extent of their convergence, especially, when the data sources are also different?

The answer could be seen in Figure 2.9. For MPI, the scale has been reversed ($1 - \text{MPI}$) to match with the HDI. It is evident that they are closely related, thereby suggesting that deployment of multiple indices from varied data sources produce the same or similar results.¹⁴

2.6 Inequalities

Inequalities are multidimensional and have always plagued societies since time immemorial.¹⁵ They

manifest through entitlements, asset ownerships, jobs, earnings, organisational hierarchies, and a multitude of other processes. Here, some basic inequalities are discussed along with some advanced ones between the STs and non-STs.

Inequalities in Basic Capabilities: These are those that relate to simple though essential services, such as access to schools, health services, food and nutrition, electricity, clean drinking water, and sanitation. The key question is – are they available to all?

Inequalities in advanced capabilities: As the economy changes, it is important to examine the newer forms of inequalities emerging from the change, which could affect the ST communities' ability to utilise and participate in the new economy, such as the *digital economy*.

For improving human development outcomes, both basic and newer inequalities require attention.

14. Other scholastic reports also find convergence between different development indicators. See for example, Thorat S and A Dubey (2013),

15. The most articulated concern on inequality has been made by Thomas Piketty (2014). It has become a global concern now. See also, Sen A (1992)

2.6.1 Inequality and Development seen through Night Light Intensity

The starting point in this discussion is to examine whether people have the basics, such as street and house lighting. This report presents the satellite images of *night light intensity* in areas where the ST population dwell (Table 2.9). The main point that emerges from these night light data is that the night light intensity is higher in districts that have a lower proportion of ST populations. Example, districts with less than 10 per cent ST population recorded an average radiance per sq. km of 9.43 in 2018, while that for districts with 50 per cent and above ST population the data was 2.36, for the same period.

Table 2.9: Night Light Intensity of Districts, 2014 and 2018

Per cent ST Population	Average Radiance/sq. km (2014)	Average Radiance/sq. km (2018)	Percentage Change in Average Radiance/sq. km
Less than 10	8.13	9.43	16.0
10–30	3.35	4.29	28.1
30–50	2.66	3.58	34.6
50 and above	1.49	2.36	58.4

Note: Unit of radiance is $nW\ cm^{-2}\ sr^{-1}$. Higher the radiance, higher the infrastructural development expected, and the vice versa.

Source: The nightlight data are made available by the USA's National Aeronautics and Space Administration (NASA) and are available at different time resolutions, on annual, monthly, and most recently daily basis. Nightlight data of two time period i.e., 2014 and 2018, were used from the SNPP/VIIRS (Suomi National Polar-Orbiting Partnership) satellite system in the Day/Night Band (DNB). The SNPP/VIIRS nightlights come in 6 GeoTIFF tiles (each approximately 3 GB uncompressed) at a resolution of approximately 0.45km x 0.45km at the equator. "The Rnightlights package" of R programme was used to obtain the satellite nightlight data and process it.

These data also show that between 2014 and 2018 districts having a higher proportion of ST population reported a *higher growth* in night-light intensity compared to districts having a lower proportion of ST population. In fact, districts with more than 50 per cent ST population recorded the highest growth at 58.4 per cent, followed by districts with 30-50 per

cent ST population with a growth of 34.6 per cent. The non-ST districts (with less than 10 per cent ST population) recorded the lowest growth in night light at 16 per cent, followed by districts with 10-30 per cent ST population with the growth of 28.1 per cent. This could be partly attributed to the much lower base in ST-dominated districts compared to the non-ST dominated districts. At the same time, the faster *rate of growth* in the recent years could be due to higher provision of public and industrial lighting. The recently concluded programme of rural electrification is likely to have increased electricity connections to ST-households.

2.6.2 Measuring Inequalities

Table 2.10 presents data on safe cooking fuel, household members who have not completed 6 years of schooling, and population without access to computers among STs and non-STs over time from 2005-06 to 2019-21

In 2005-06, less than 10 per cent STs used safe cooking gas, which increased to about 17-18 per cent in 2015-16 and about 32 per cent in 2020-21. This increase among STs, however, has not matched with the improved level of access among non-ST population; the gap between the two groups has widened. This pattern of widening gaps between STs and non-STs is also observed from 2005-06 and 2015-16 in the household member who have not completed 6 years of schooling. Similarly, the gap has also widened with regard to access to computers during this period.

Table 2.11 also shows measures of inequality and deprivation, this time on abilities: operating computers and internet, with an added gender component. It represents the comparative proficiency of males and females in operating computers and internet knowledge. The degree of inequality and the degree of progress in operating computers and internet among ST population are not encouraging

These data show disadvantageous position of STs compared to other social groups even as we witness improvements. All these parameters indicate different facets of development and efforts to bridge the gaps between the STs and non-STs must continue to be a priority.

Table 2.10: Changes in basic inequalities and advanced capabilities – percentage population deprived (All-India)

		ST	Non-ST	per cent Difference between previous year, ST, (Col 3, row 1)-Col 3, row 2)/ (Col 3, row 1)] X100 and so on
2005-06		91.7	85.5	
2015-16	Households not having access to safe cooking fuel	82.4	66.5	10.4
2019-21		68.2	40.2	17.2
Percentage point change (2015-16 & 2019-21)		14.2	26.3	
2005-06		70.6	82.4	
2015-16	Per cent of at least one household member not having 6 years of education	23.4	12.7	66.9
2019-21		15.4	8.5	34.2
Percentage point shift (2015-16 & 2019-21)		5.1	7	-
2005-06		99.3	96.9	
2015-16	Per cent Population not having access to computers	97	90.2	2.4
2019-21		96.3	90.1	0.7
Percentage point shift (2015-16 & 2019-21)		0.7	0.1	-

Source: NFHS Rounds 3 and 4, and NFHS 5.

Table 2.11: Percentage of persons in India (5 years and above) with ability to operate computer and internet, STs and non-STs, 2017-18

Ability type	ST	Non-ST
Ability to operate computer	8.8	17.3
Ability to operate internet	11.2	21.0
Used internet in last 30 days	9.5	18.4
Men		
Ability to operate computer	11.0	20.9
Ability to operate internet	14.6	26.0
Used internet in last 30 days	12.6	23.3
Women		
Ability to operate computer	6.4	13.5
Ability to operate internet	7.5	15.7
Used internet in last 30 days	6.1	13.2

Source: IHD's calculation from unit level NSS data (75th Round)

Terms of Recognition

Discrimination is a fundamental form of unfreedom and inequality. It entails lack of access to basic requirements and denial to exist with dignity.

While the ST communities face many capability deficits, they are also subject to discrimination of various kinds. In the modern world, STs not only struggle hard to advance, but are also subject to various inequities.

Further, the important cultural contributions of the ST communities, over the period of time, are dismissed as primitive or backward. For instance, their intimate knowledge of forests and their management of natural resources is undermined. Denying the role and potential of the ST communities' knowledge of forests is tantamount to adverse terms of recognition of the ST communities. As pointed out, "... in the case of the Adivasis the cultural traditions are often very rich, with many creative features, the

loss of which must be an issue of concern not just for the Adivasis themselves, but for all the people in the wider society who too could benefit from the cultural offerings of Adivasi tradition” (Sen 2020). Consequently, human development for the STs not only require removal of capability gaps, but also a change in overall attitude towards them. The need is to develop a positive attitude towards their cultures, particularly in the human–forest interaction.

Social discrimination perpetuates inequality. In terms of physical assets and skills (modern gadgets and computers), there is high inequality between STs and non-STs. This level of deprivation among STs reverberates well with the data on poverty discussed earlier. The legal framework to strengthen equity and equality should not stop at just creating reservations and facilities, but it should go beyond to ensure equity in a result-oriented framework.¹⁶

2.7 Conclusion

Human Development is a new, flexible, and growing concept aimed at expanding human capabilities, widening people’s choices, and enhancing their freedoms. The starting point of the notion of human development is that people stay healthy and live a long life, their knowledge and skills-base grow, and that there is a rise in their incomes. There are many indices and indicators that define HD; the most popular being the HDI, with others like (multidimensional) poverty and inequality measures supporting it. There are yet others like gauging the status of women, issues regarding environmental issues. These are now adequately captured in the *2030 Agenda*. This chapter throws light on a few of these for the ST population in India.

Method: The components of HDI are knowledge, good health (the reverse of U5MR), and income. MPI is a composite index of indicators for health, education, and standard of living. Finally, the Wealth Index is a measure of a household’s cumulative living standard in terms of the assets owned. There is high convergence between the HDI, HCR, MPI, and WP indices calculated across states. The level of convergence is high even though there are

definitional differences and data have been drawn from multiple sources. This points towards the robustness of the results. It may thus be meaningful to summarise the results as obtained collectively from the different indices.

1. In general, the HD status of the STs (measured by both HDI and MPI) in the eastern, central, and western states (especially, Madhya Pradesh, Jharkhand, Chhattisgarh, Odisha, and West Bengal) is low. The extremely disadvantageous status of the STs in these states appears to be partly reinforced by the overall underdevelopment of these states. In contrast, HD status of STs in the Northeast and Sub-Himalyan regions of India is relatively high and in the latter states the overall development status is also better. It also seems that the implementation of the Sixth Schedule of the Constitution has helped.
2. The HDI of non-STs is higher than those of STs in most of the Indian states. The gaps are less in the Northern eastern and Sub-Himalyan states. The gap between the HDI scores of STs and non-STs is the largest in Madhya Pradesh, Odisha and Chattisgarh, pointing towards the need to improve “equity”.
3. The gap between the HDI values of STs and non-STs is narrowing over time though a visible gap exists. The MPI, though, shows that the gaps are not narrowing over time. Effort is required to bring about greater (income) parity across states.
4. The component-scores of HDI (for STs) suggest that the capabilities are unevenly spread across the states, i.e., there are states with high incomes and low education, and so on. Only in the top 2-4 HDI states/regions the three components match evenly. The said unevenness is also the cause of the existing gaps in HDI scores between STs and non-STs. This disparity has implications on public policy and expenditures for strengthening HD.
5. The HDI scores for Scheduled Tribes (STs) in various states have decreased by 3.7% to 9.8% when accounting for income inequality. The largest decline is in Rajasthan, a state with a lower HDI for STs. In Bihar, the impact is minimal

¹⁶ BR Ambedkar’s *The Annihilation of Caste* (New York: Columbia University Press 2014), first published in 1936, is one of the strongest statements on this aspect.

because lower overall incomes limit the scope for income disparities due to a lower wage ceiling necessary for survival.

6. There are large gaps and inequalities in terms of the use of cooking gas, years of schooling or owning computers, between the STs and non-STs. There has been some growth in the use of cooking gas and computers over the period 2005-06 to 2019-21; however, the extent of use of these is so low among the STs that there is need for greater attention towards reducing *absolute deprivation* rather than inequality. Thus,

while basic inequalities among ST and non-STs are declining, the new inequalities emerging, for example, in computer and internet knowledge and access.

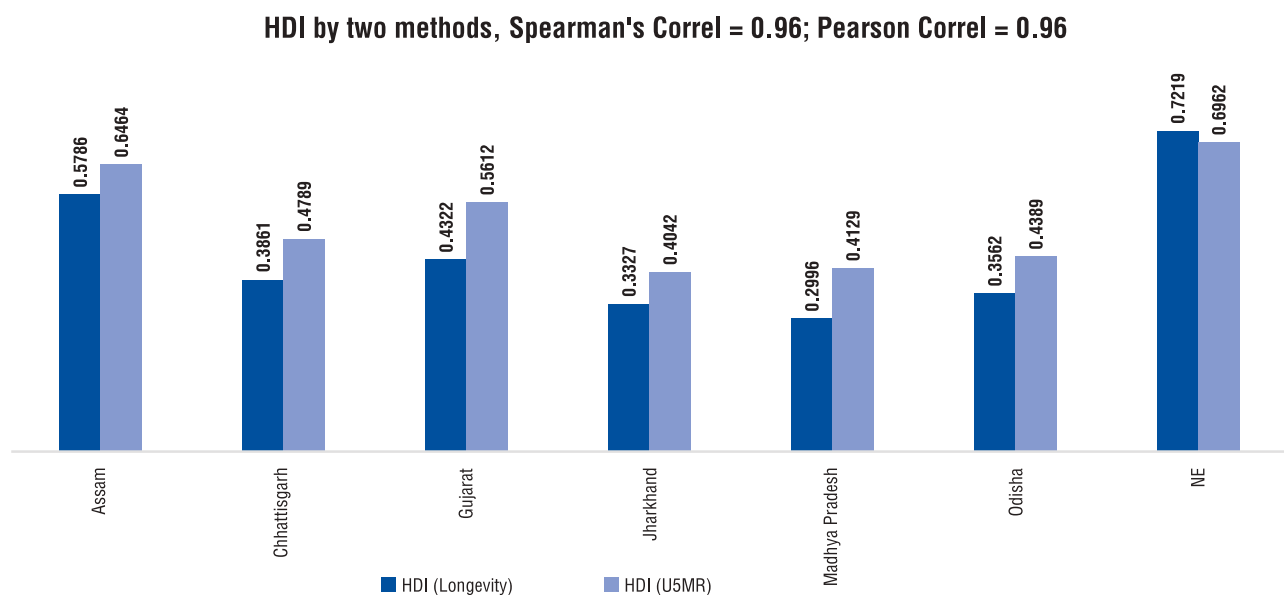
7. The Indian society is segmented by geographical and social identities of caste, , tribe, gender etc. For historical reasons, STs fall towards the lower end of both social and economic hierarchy. This *inequality*, which manifests in social discrimination, is an institutional problem and needs a sustained solution.

Appendix 2.1: Deploying U5MR in place of Longevity

1. Data on Longevity could be derived from the decennial Census, Sample Registration System (SRS) and the NFHS. SRS data do not permit social-group specific break-ups. Census data are a decade old and the NFHS database permit computing Longevity for no more than seven states, given its sample size and design. This report’s interest is to cover maximum states where STs dwell, hence, there is lookout for substitute variables. As stated in Chapter 1, U5MR is one such variable. U5MR is actually a part of the longevity calculations. To statically assess substituting U5MR with longevity, HDI variations were computed for these seven states alternatively using longevity and U5MR. The results for the seven states/groups of states could be seen in the figure below.

Two Spearman’s Correlation Coefficients clinch the issue: between the two HDI series the correlation is 0.0.96, and between longevity series and (100-U5MR) series also it is 0.0.88. These prove beyond suspicion that the substitution is eminently acceptable with minimal changes in the inferences.

The figure showing HDI calculated by the two methods for seven states is presented below:



Note that estimates of U5MR for all the states under consideration here have a smaller range of confidence interval; the estimates could thus be trusted.

2. Data analysed by Verma, Sharma and Saha (2021) * suggest a Spearman correlation coefficient of 0.99 between U5MR and Life Expectancy. The United Nations also underscores the importance of U5MR in the context of human development; see, United Nations (n.d.), Under-Five Mortality Rate, New York at https://www.un.org/esa/sustdev/natlinfo/indicators/methodology_sheets/health/under_five_mortality.pdf

3. On this topic see also Alimohamadi, 2019.

*Verma A, RK Sharma and KB Saha (2021)

C H A P T E R

3

Access to Infrastructure and Basic Services

Access to Infrastructure and Basic Services

Sustainable human development can be achieved through synergies between economic growth, poverty reduction, and access to basic services. The durable attainment of poverty reduction necessitates empowerment of the poor through an augmented investment in their basic capabilities. Basic services are the building blocks for human development and the provision of basic social services is a critical component of poverty reduction, as it breaks the cycle or 'cumulative causation' of the factors leading to poverty. There is a synergy between the provision of basic health care, education, water, and sanitation, and other such services, as interventions in these areas have a combined effect on the quality of life, which is a fundamental component of human development. While basic education helps to promote the adoption of decent hygiene practices, access to safe water and sanitation improves nutritional status and reduces vulnerability to communicable diseases, which in turn, has an impact on learning abilities.

Therefore, the fulfilment of basic needs in terms of health, education, nutrition, water and sanitation is a critical ingredient of overall development. While economic growth alone cannot assure an overall improvement in the quality of life, achieving sustained economic growth may not be possible without adequate social interventions. Inequalities in the provision of basic services, such as access to schools, basic health care services, electricity, clean drinking water and sanitation, may hinder the attainment of social development. Equitable access to these basic social services will thin out socio-economic disparities, reduce poverty and improve inclusive and sustainable human development.

This chapter highlights the need for equitable access to infrastructure and basic services such as roads, drinking water, sanitation, electricity, improved cooking fuel, and better housing across various social groups, classified as follows: Scheduled Tribes (STs), Scheduled Castes (SCs), Other Backward Classes (OBCs), and 'Others'. This report mainly focuses on the status of the ST population.

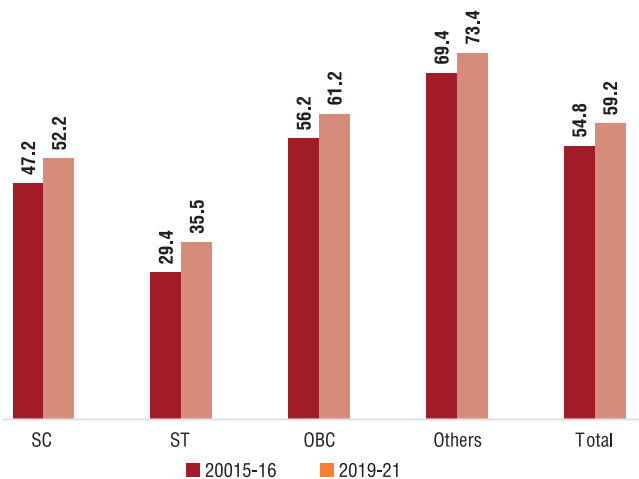
The analysis in this report is primarily based on unit-level data obtained from the NFHS Surveys conducted in 2015-16 and 2019-21, the 76th Round of the National Sample Survey (NSS) conducted during July-December 2018. and the 69th NSS Round conducted during July-December 2012. The data from the two sources have alternatively been used according to the details required for the analysis and the most recent information Next, the analysis has been undertaken according to social groups as well as across states.

3.1 Access to Road Infrastructure

3.1.1 Approach by Motorable Road with/without Street Lights

According to the 76th NSS Round, 2018, about 46.7 per cent of ST households have access to motorable roads/lanes/constructed paths, compared to 59 per cent non-ST households, which include about 52.5 per cent SC households, 59.8 per cent OBC households, and 62.5 per cent 'Other' households. The condition of ST households saw an improvement in 2018 in terms of approach by motorable roads as compared to 2012 (as per the assessment of the 69th NSS Round). The proportion of ST households with access to motorable roads, with/without streetlights,

Figure 3.1: Social group-wise access to approach by motorable roads/lanes/constructed paths with/without streetlights, 2018

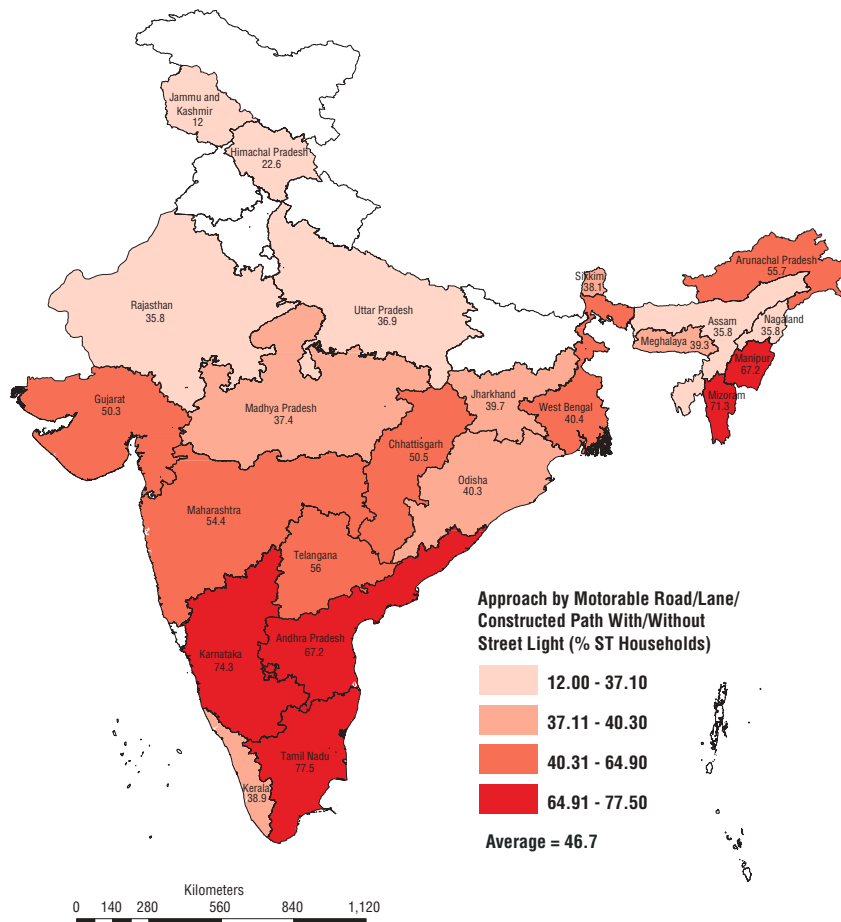


Source: Unit-level data from NSS 69th Round, July-December

increased by about five percentage points from 42.2 per cent in 2012 to 46.7 per cent in 2018 (Figure 3.1). While the improvement of ST households fared better than their OBC counterparts (3.7 percentage points) and 'Other' households (three percentage points) in terms of improved access to motorable roads, SC households reported a higher increase (seven percentage points) than all other households in access to motorable roads.

Among the States, the gradient of disparity between ST and non-ST households was substantially steep in Kerala (37 percentage points), Jammu & Kashmir, including Ladakh (35 percentage points), and Telangana (27 percentage points). While 76.3 per cent of non-ST households had access to a motorable road in Kerala, only about 39 per cent of ST households have an approach to the same. Among the major states, Tamil Nadu, Karnataka,

Figure 3.2: State-wise ST households with approach by motorable roads/lanes/constructed paths with/without streetlights (per cent), 2018



Source: Unit-level data from NSS 76th Round, July-December 2018.

and West Bengal, along with Assam and Manipur, displayed the most equitable access to motorable roads among ST and non-ST households.

The overall access to motorable roads is poor in the North-eastern states and the hilly states of the northern region, owing to the heavily forested, hilly, and difficult terrain in these States. However, the north-eastern states exhibit relatively lower disparity between the ST and non-ST households as compared to the states in the northern region, i.e., Jammu & Kashmir, including Ladakh, and Himachal Pradesh, with regard to access to a motorable road. While the southern States have overall better access to motorable roads, there is stark disparity between the STs and non-STs in this region, especially in the states of Kerala and Telangana. In contrast, the states in the eastern, central, and western regions exhibit moderate gaps between STs and non-STs with regard to access to motorable roads though a higher disparity is noted in the states of Madhya Pradesh and Rajasthan (see Appendix 3.1, Table A1).

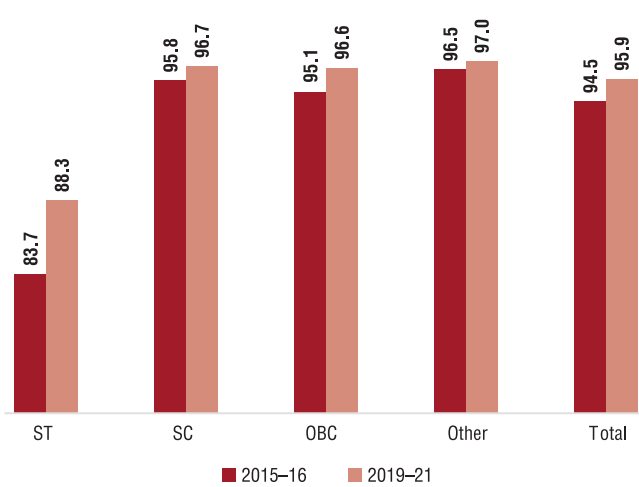
3.2 Access to Drinking Water

The definition of 'improved sources' of drinking water, as per the National Family Health Survey (NFHS), includes provision of piped water into a dwelling/yard/plot, with public taps/standpipes and tube wells or boreholes classified as 'improved sources', and protected wells, protected springs, and rainwater collection categorised as 'other improved sources' of drinking water. According to the NFHS-5, 2019-21, 88.3 per cent of the ST households have access to 'improved sources' of drinking water as compared to corresponding figures of 95.9 per cent for the whole population (Figure 3.3). STs lag by 7-8 percent on this count.

The temporal change in access to improved/safe drinking water recorded for ST populations during 2015-16 and 2019-21 indicates an improvement of about five percent (Figure 3.3). This compares with 1-2 percent among the whole population, but since the latter is already nearing full coverage, this comparison will have to be viewed in that context.

Only 19 per cent of the ST households had access to *piped water in their dwellings, yards, or plots* while the proportion was much higher among the other social groups, with 28 per cent of SC households, about

Figure 3.3: Social group-wise households with access to the Improved source of drinking water*, 2015-16 and 2019-21



Note: *Include piped water, public taps, standpipes, tube wells, boreholes, protected dug wells and springs, rainwater, tanker truck, cart with small tank, bottled water, and community reverse osmosis (RO) plants. (as per NFHS 5, 2019-21). Sources: NFHS 4 and NFHS 5

33 per cent of OBC households, and 45 per cent of 'Other' households having access to piped water in their dwellings, yards, or plots. The Government of India has restructured the National Rural Drinking Water Programme into the Jal Jeevan Mission to provide piped water/tap connections to every rural household (Box 3.1).

Box 3.1: Coverage of Functional Household Tap Connection in States with Concentration of ST Populations

With the aim of providing a Functional Household Tap Connection (FHTC) to every rural household by the year 2024, under the aegis of the Har Ghar Nal Se Jal (HGNSJ) scheme, the Government of India (GoI) has restructured and subsumed the National Rural Drinking Water Programme (NRDWP) into the Jal Jeevan Mission (JJM). The goal of the programme is to provide 55 litres of water per capita per day (lpcd) to every rural household through FHTC. Communities are required to contribute 10 per cent of the capital cost in cash and/or kind and/or labour in all the villages. Special concession has been provided for hilly and forested areas, the North-eastern and

Himalayan States, and villages with more than 50 per cent SC and/or ST populations, where the required community contribution has been slashed to five per cent of the capital cost.

According to the State-wise status of FHTCs, as on August 18, 2022, the eastern and central region, along with the North-eastern States has relatively poorer coverage of HTWCs. The North-eastern states of Meghalaya (39.55 per cent) and Nagaland (47.22 per cent), where more than 86 per cent of the population comprises STs, have the poorest coverage of HWTCs in the country. Similarly, within the eastern and central region, the States with concentrations of ST populations, including Jharkhand (22.1 per cent), and Chhattisgarh (26.2 per cent) have poor coverage of HWTCs. Sikkim stands out as the only State with a concentration of ST population (33.8 per cent) has a higher coverage of HWTCs (68.8 per cent).

Source: Jal Jeevan Mission, Ministry of Jal Shakti, GoI, https://jalshakti-ddws.gov.in/sites/default/files/JJM_note.pdf and <https://ejalshakti.gov.in/WaterDashboard/HouseHoldConnection.aspx>

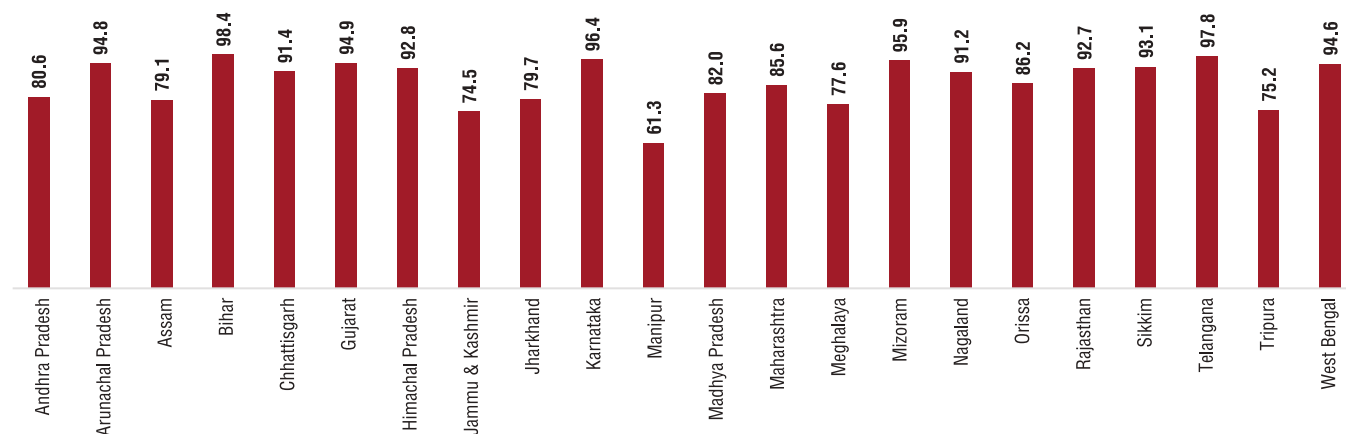
Figure 3.4 presents a state-wise disaggregation of the data presented in Figure 3.3. For one, though access to improved (clean/safe) drinking water has significantly increased in the recent years, a large gap still needs to be filled in many states. On the better side, there are 12 states which have more than 90 per cent ST households getting drinking water from improved sources. On the other side, there are six states where less than 80 per cent of

the ST households get drinking water from improved sources. These states are Assam, J&K, Jharkhand, Manipur, Meghalaya and Tripura. This is a bit indiscernible since four of these six states are in the Northeast, which otherwise show better HD status compared to many other states.

As regards proximity to the principal sources of drinking water, only 28.4 per cent of the ST households had access to safe drinking water for the exclusive use of the households as in 2018. This compares unfavourably with “other” (non-scheduled non-OBC) households, where this proportion exceeded 60 per cent in that year (Figure 3.5). There was improvement in ST households’ access to improved water for exclusive use through 2012-18 by 11.6 percentage points. This is similar or less compared to what the other social groups have achieved. One possible reason: the ST households still dwell in large numbers in rural areas where the exclusive supply of safe drinking water is less compared to many other social groups who have moved to towns and cities. This strongly suggests that supply of improved/safe water in rural areas should be given high priority.

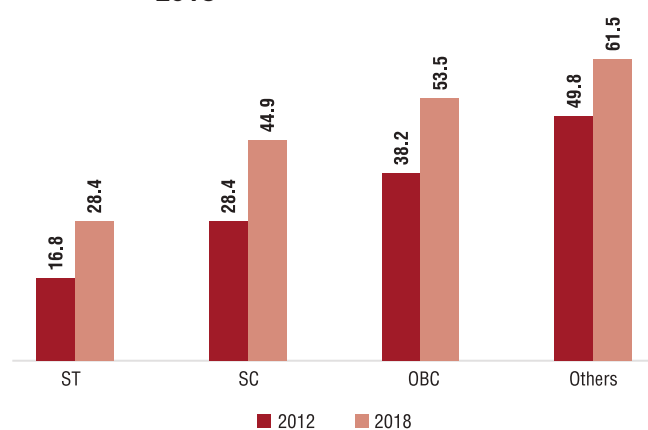
The ST households in all major states with concentration of ST populations or the Fifth Schedule States fare poorly when compared to other social groups in terms of the availability of drinking water for the exclusive use of the household. In contrast, the states in the northern and western regions enjoy better access to drinking water though they are also

Figure 3.4: State-wise ST households with access to the principal source of drinking water from improved sources (per cent), 2019-21



Source: NFHS-5, 2019-21

Figure 3.5: Social group-wise availability of a principal source of drinking water for exclusive use of household, 2012 and 2018



Source: Unit-level data from NSS 69th Round, July–December 2012 and NSS 76th Round, July–December 2018.

characterised by greater disparity between the STs and non-STs. The gradient of disparity between the STs and non-STs is substantially steep in Jammu & Kashmir including Ladakh (42 percentage points), Maharashtra (38 percentage points), and Rajasthan (32 percentage points).

All the North-eastern states except Tripura and Mizoram exhibit relatively lower disparity among ST and non-ST households with regard to access to drinking water for the exclusive use of the household. Among the major states, Bihar and West Bengal display the most equitable access to potable water for STs and non-STs (2018 data from NSS 76th Round).

Comparing ST and non-ST Households: The gap in the availability of drinking water for exclusive use of the households between the STs and non-ST households is moderate in the eastern and central region though the disparity is relatively high in Madhya Pradesh and Odisha. E.g., only five per cent of the ST households in Odisha have exclusive access to drinking water for their households compared to 27 per cent of the non-ST households. Similarly, there is an equally sharp gap between STs and other social groups in access to potable water in Madhya Pradesh (31 percentage points). The corresponding proportions for ST and non-ST households in Jharkhand are 11 per cent and 32 per cent, respectively.

Functional Household Tap Connection

Box 3.1 presents the aim of the programme on extending tap connections to all. Table 3.1 presents the progress of this programme as in August 2022. There is wide variation across states with states like Chhattisgarh, Jharkhand and Rajasthan showing the proportions less than 30 per cent, while others like Telangana, Himachal Pradesh and Bihar reaching or have reached full coverage.

There are no data available in public domain showing a break-up of the households by ST and non-ST, having tap connections; hence, inference on that aspect is difficult here. But the states in the central region with large share of ST population such as Chhattisgarh, Madhya Pradesh, Jharkhand, Odisha exhibit less proportion of households with tap connections, suggesting much lower access among STs there.

Table 3.1: Households with Tap Connection (per cent), State-wise, August 2022

States/UTs/All-India	Households (all social groups) with tap water supply (per cent)	ST population (per cent)
Bihar	95.49	1.3
Chhattisgarh	26.27	30.6
Jharkhand	22.15	26.2
Madhya Pradesh	43.12	21.1
Odisha	50.48	22.9
West Bengal	NA	5.8
Gujarat	97.0	14.8
Maharashtra	70.53	9.4
Rajasthan	26.4	13.5
Himachal Pradesh	94.85	5.7
J & K	57.91	10.4
Andhra Pradesh	61.24	5.3
Karnataka	53.14	7
Telangana	100	3.1
Arunachal Pradesh	67.67	68.8
Assam	37.44	12.5
Manipur	72.78	40.9
Meghalaya	39.55	86.2
Mizoram	65.45	94.4
Nagaland	47.22	86.5
Sikkim	68.81	33.8
Tripura	52.98	31.8

Source: <https://ejalshakti.gov.in/jjmreport/JJMIndia.aspx>

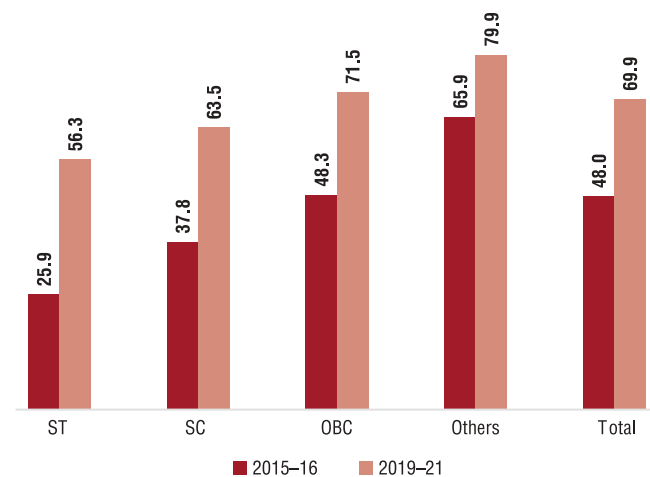
3.3 Access to Sanitation Facility

3.3.1 Access of Households to Toilet Facility

Improving sanitation, of which abolition of open defecation is an important component, has been a part of the government's programme, *Swachh Bharat Mission*. Under Swachh Bharat Mission (Urban) 109 million individual household toilets had been constructed up to 2022, since the launch of the mission. For rural areas, the objectives include providing access to toilet facilities to all the rural households, ensuring scientific solid and liquid waste management and eradicating manual scavenging.

In regard to the access of households to toilet facilities, some 56.3 per cent of the ST households have access to latrines for the exclusive use of the household as compared to 69.9 per cent on the aggregate. There was a notable increase in the ST households accessing private toilet facilities by about 25-26 percentage points between 2015-16 and 2019-21. This compares favourably with the aggregate improvement of about 22 percentage points in the same period (Figure 3.6).

Figure 3.6: Social group-wise access to Improved Toilet Facility for the exclusive use of the household, 2015-16 and 2019-21



Note: Improved toilet facilities include any non-shared toilet of the following types: flush/pour flush toilets to piped sewer systems, septic tanks, pit latrines, or an unknown destination; ventilated improved pit (VIP)/biogas latrines; pit latrines with slabs; and twin pit/composting toilets.

Source: Unit-level data from NFHS4 and NFHS 5.

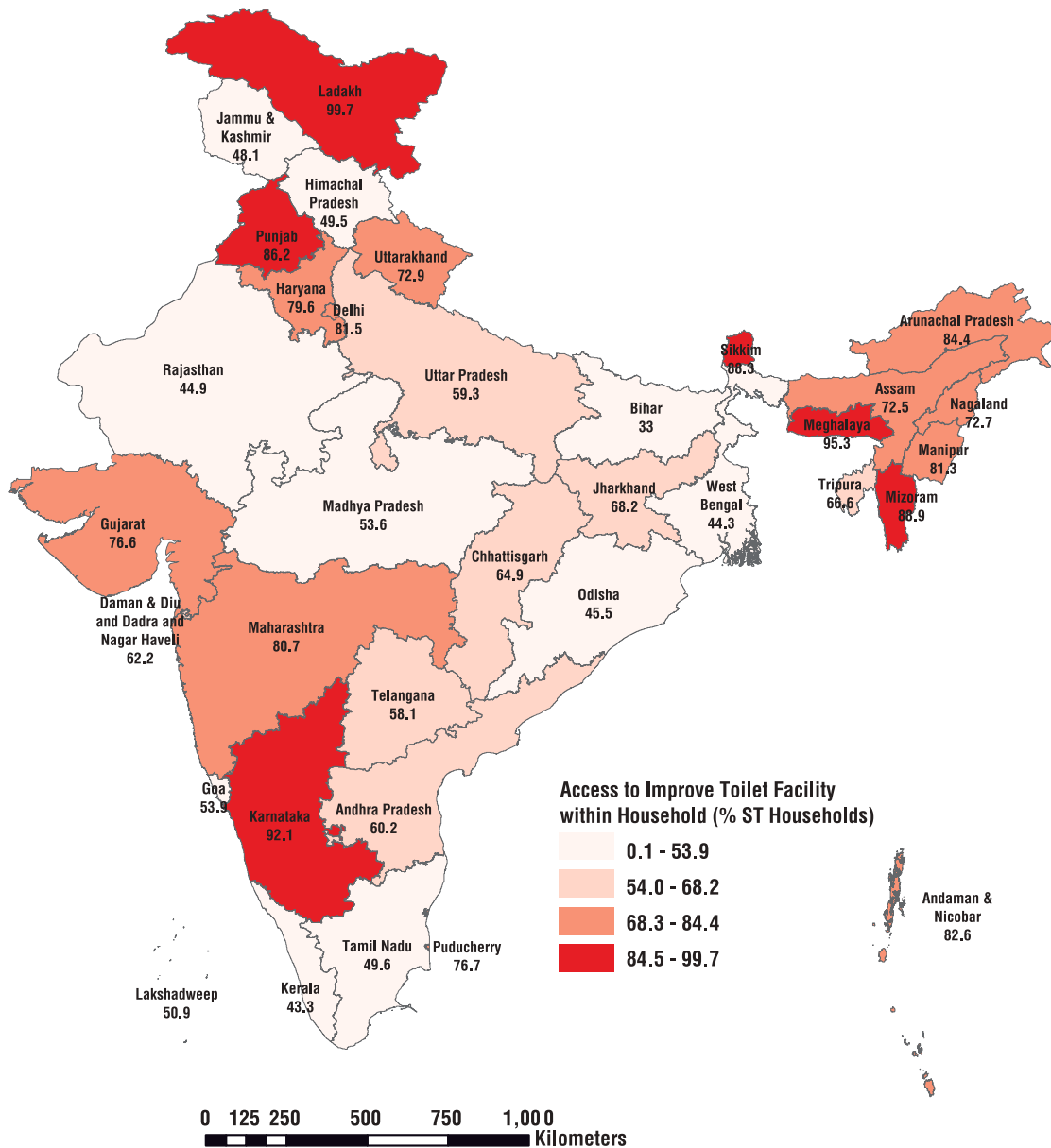
Box 3.2 **Access to any kind of toilet facilities**

Apart from access to latrine for the exclusive use of the household, the other types of access to toilet facilities, as recorded in the NSS 2018 survey, include latrine for the common use of households in the building, and public /community latrine with or without payment. The proportion of households with absolutely no access to latrine facility was the highest among the STs at 32.8 per cent. For non-STs this proportion was at 19 per cent. As compared to the status in 2012, the proportion of ST households with no access to latrines of any type declined considerably by about 35 percentage points from 67.3 per cent in 2012 to 32.8 per cent in 2018. The relative decline was much lesser among the other social groups: about 28 percentage points among SC households, about 27 percentage points among OBC households, and 13 percentage points among 'Other' households, in the same period.

These details are not available from the NFHS; hence, the NSS data have been presented, even though they pertain to 2018.

- The STs across all the North-eastern states have better access to toilet facilities as compared to the other states (Figure 3.7).
- The access to latrines for the exclusive use of the household is superior among the states in of the North-eastern region, with more than 80 per cent coverage in all the states (Figure 3.7).
- The North-eastern states and Himachal Pradesh have the lowest disparity between the ST and non-ST households in regard to access to an individual household toilet facility.
- The access to latrine facility is also good among the states of the southern region.
- All southern states other than Andhra Pradesh exhibit low disparity between the ST and non-ST households.
- The disparity between the STs and non-STs is most stark in the northern and western regions: Rajasthan (29 percentage points), and Jammu & Kashmir including Ladakh (29 percentage points). In Rajasthan, only 45.6 per cent of the ST households have access to latrines.

Figure 3.7: State-wise ST households with access to latrine for the exclusive use of the household (per cent), STs, 2019-21



Source: NFHS-5, 2019-21.

More generally: The status of overall access to a latrine facility as well as the gap between STs and non-STs in access to this facility is lower in the eastern and central region, with a relatively higher disparity noted in Bihar and Odisha. About 64 per cent of the ST households in Bihar, 55 per cent in Odisha, and 44 per cent in Jharkhand have no access to latrine facility at all (see Appendix 3.1, Table A4 and A5).

Individual Household Latrines (IHHL) – by states

Different states have adopted the IHHL scheme and have achieved varied successes. The overall the success could be termed satisfactory. This could be seen from Table 3.2, where in rural areas 14.1 percent of the STs have constructed IHHL, which is more than their share in the population.

Table 3.2: ST Households' Share in Total HHIL under the Swachh Bharat Mission (Grameen), up to Dec 31, 2020

States/UTs/All-India	STs share in total HHILs achievement (per cent)	ST population (per cent)
Bihar	2.2	1.3
Chhattisgarh	30.6	30.6
Jharkhand	27.5	26.2
Madhya Pradesh	42.1	21.1
Odisha	22.6	22.9
West Bengal	10	5.8
Gujarat	30.2	14.8
Maharashtra	15.4	9.4
Rajasthan	26.9	13.5
Himachal Pradesh	2	5.7
J & K + Ladakh)	12.7	10.4
Andhra Pradesh	8.1	5.3
Karnataka	10.7	7
Telangana	19.4	3.1
Arunachal Pradesh	71.6	68.8
Assam	12.7	12.5
Manipur	2.8	40.9
Meghalaya	93.2	86.2
Mizoram	97.6	94.4
Nagaland	98.9	86.5
Sikkim	26.1	33.8
Tripura	36	31.8
All-India	14.1	8.6

Source: Annual Report, 2020-21, Ministry of Drinking Water and Sanitation, GoI

Box: 3.3:**A Case Study from Dantewada District in Chhattisgarh on Sanitation**

The Swachh Bharat Mission has been successful in improving the sanitation condition across the nation in a very short span of time. The key approach adopted by the Government of India (GOI) has been the Community Led Total Sanitation (CLTS), also termed as Community Approached to Total Sanitation.

There has been strong effect of the CLTS approach which focuses on total sanitation through collective

behavioural change of the communities. The tools used in the communication and triggering process have generated demand for toilets from each member of the community and the awareness on better and low-cost toilet technologies have helped the people in constructing the toilets of their choice and locally available resources. The vigilance committee formed by the community itself has been successful in ensuring the toilet usage and that no one goes out for defecation. There is also pressure from the Sarpanch, who is the elected leader of the community, for constructing and using the toilets.

The study finds that Supportive Environment, Institutional and Social Support, Personal Necessity, Issues with Open Defecation, Enhanced Awareness and Social Enforcement are the key drivers in improving the sanitation condition and making the district open defecation free.

Source: P Pathak, A Adlaka, P Pandey and D Kaur (2022), Research Square, <https://doi.org/10.21203/rs.3.rs-1660406/v1>

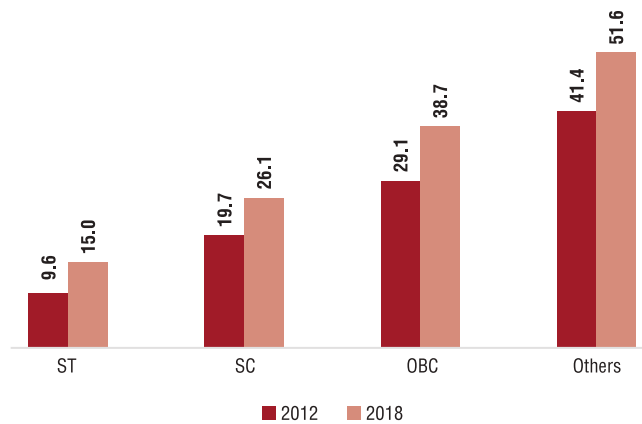
3.3.2 Access to Improved Drainage

Access to improved drainage includes access to underground or covered *pucca* drainage for the households and is an important component of the "Swachh Bharat Mission".

Figure 3.8, however, shows that only 15 per cent of the ST households have access to improved drainage facilities, significantly lower than the corresponding figure for "Others", at about 52 per cent. A comparison with the status of improved drainage in 2012 shows an increase in access to improved drainage facility across all social groups. However, the least improvement in this regard was recorded among the STs, with the proportion of ST households with access to improved drainage facility increasing by merely 5 percentage points, from about 9.6 per cent during 2012 to about 15 per cent during 2018. The corresponding improvement was much higher among the other social groups i.e., OBCs and 'Other' households, which exhibited an increase of about 10 percentage points during the same period.

The status of overall access to a drainage facility as well as the gap between STs and non-STs gap in access to the same were seen to be moderate in the

Figure 3.8: Social group-wise households with access to improved drainage facility, 2012 and 2018*



Note: *Improved drainage includes underground and covered *pucca*.

Source: Unit-level data from NSS 69th Round, July–December 2012 and NSS 76th Round, July–December 2018.

eastern and central region, with a relatively higher disparity noted in Madhya Pradesh, wherein only eight per cent of the ST households have access to improved drainage facility as compared to 30 per cent of the non-ST households. The ST households in Jharkhand (about five per cent), Odisha (about six per cent), and West Bengal (about five per cent) are among those with the least access to an improved drainage facility in the country in contrast to Himachal Pradesh, where 64 per cent of the ST households have access to underground or covered *pucca* drainage despite the more difficult terrain of the State (Figure 3.9).

3.4 Access to Electricity

One of the goals of the government is to reach electricity to 100 per cent of the households. There has been notable achievement towards fulfilment of the target of universal household electrification. Overall, more than 90 per cent of the households across all social groups have access to electricity for domestic use: the figures being 94.5 per cent for ST households compared to 96.8 per cent for all households as in 2019-21 (Figure 3.10a). The gap not covered is small and the gap between the STs and the aggregate too is small.

Box 3.4 Open Drainage and Beyond

Apart from access to underground or covered *pucca* drainage, other types of access to drainage facility, as recorded in the NSS 75th Round, 2018 Survey, include open *pucca* and open *kutchra* drains. These data suggest that the proportion of households with absolutely no access to any type of drainage facility is the highest among the STs (52 per cent), as compared to SCs (34 per cent), OBCs (25 per cent), and 'Others' (21 per cent). When compared with 2012 (NSS 69th Round data), the proportion of ST households with no access to drainage facility declined significantly by about 14 percentage points, from 65.6 per cent in 2012. The relative decline, however, is lesser in this period among the other social groups: the decline was about 12 percentage points among SC households, 10 percentage points among OBC households, and seven percentage points among 'Others' households.

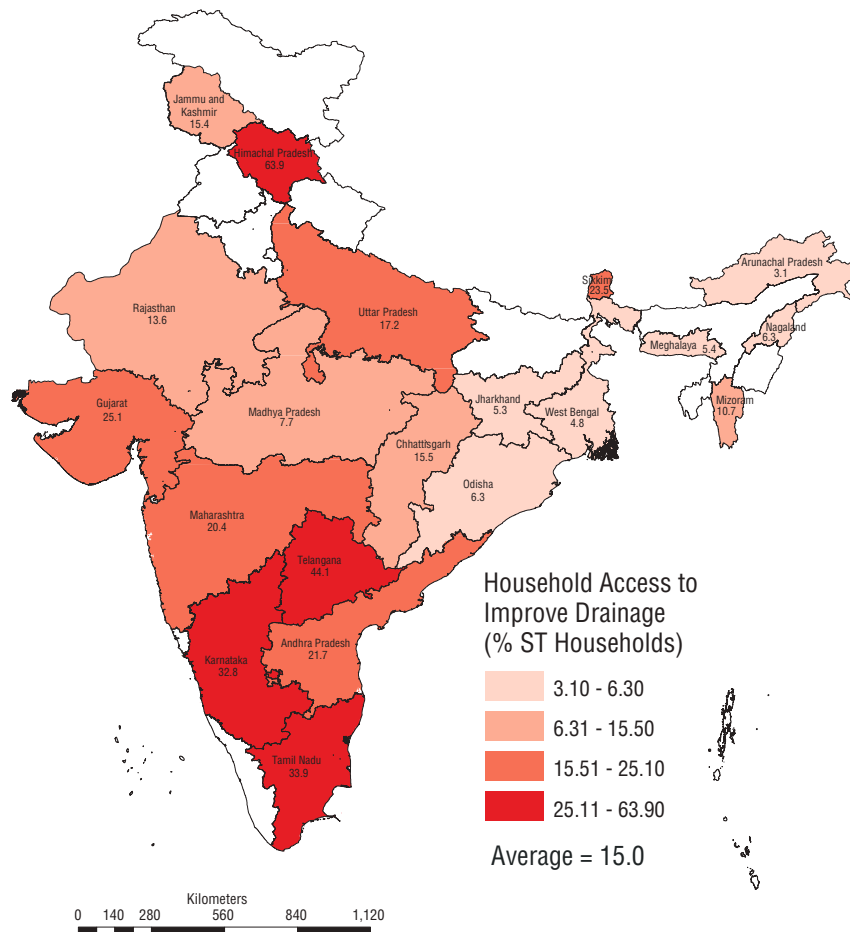
While there is higher overall access to improved drainage facility in states of the western and southern regions, these states also exhibit the highest level of disparity between the STs and non-STs. The gradient of disparity between the STs and non-STs with regard to access to improved drainage facility is substantially steep in the states of Gujarat (46 percentage points), Maharashtra (36 percentage points) and Andhra Pradesh (29 percentage points). About 62 per cent of the ST households in Gujarat and Kerala, 50 per cent in Andhra Pradesh, and 43 per cent in Maharashtra have no access to drainage facility at all.

Source: NSS 75th Round, 2018

A temporal comparison between 2015-16 and 2019-21 shows that the improvement in the proportion of households with access to electricity for domestic use among ST households was at 10+ percentage points, while on the aggregate it was nine percent. However, these comparisons need to be read with caution as the proportions of ST households electrified in some states are nearing cent per cent (Figure 3.10a).

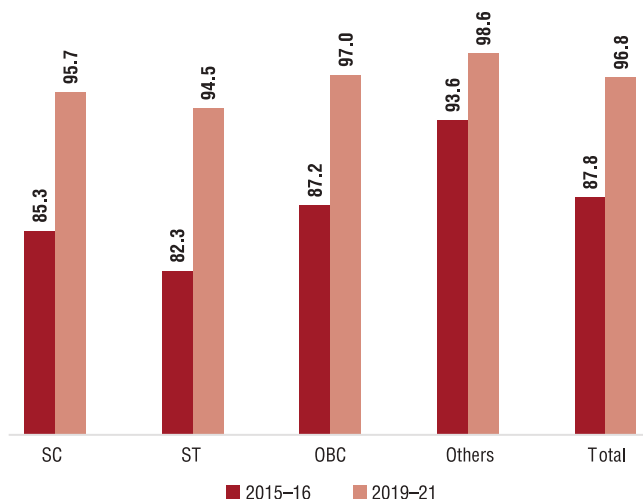
Seen state-wise, the access to electricity for domestic use among ST households was found to be above 90 per cent in all the states other than West Bengal (about 83.4 per cent). There were six states where there were less than 95 per cent households not having electricity in their homes: Arunachal

Figure 3.9: State-wise ST households with access to improved drainage facility (per cent), 2018



Source: Calculated from NSS 76th Round, 2018

Figure 3.10a: Social group-wise households with access to electricity for domestic use, 2015-16 and 2019-21



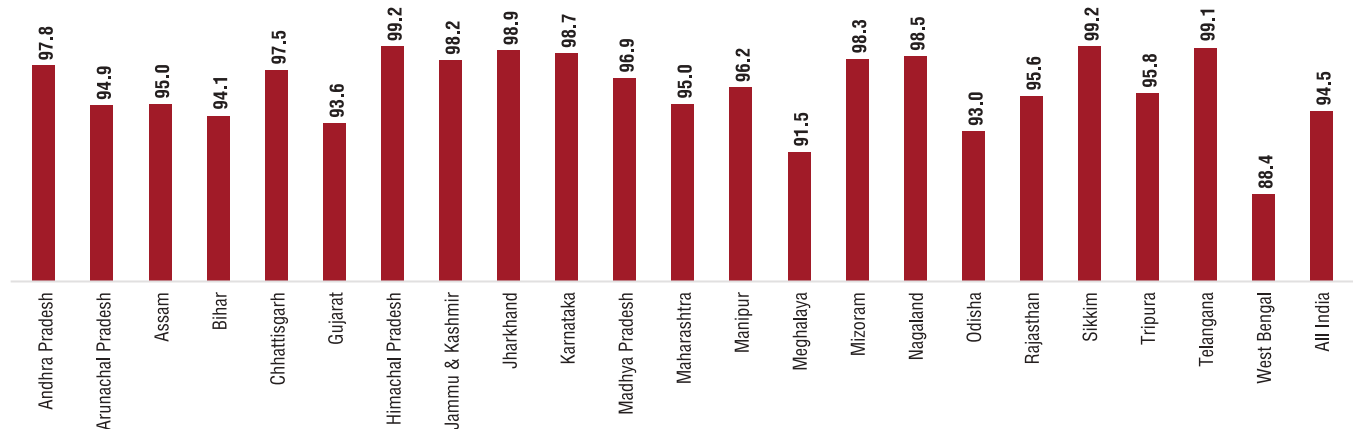
Source: Calculated from NFHS 4, 2015-16 and NFHS 5, 2019-21

Pradesh, Bihar, Gujarat, Meghalaya, Odisha and West Bengal (Table 3.10b). More details could be seen in Appendix 3.1, Table A9.

3.5 Access to Cooking Fuel

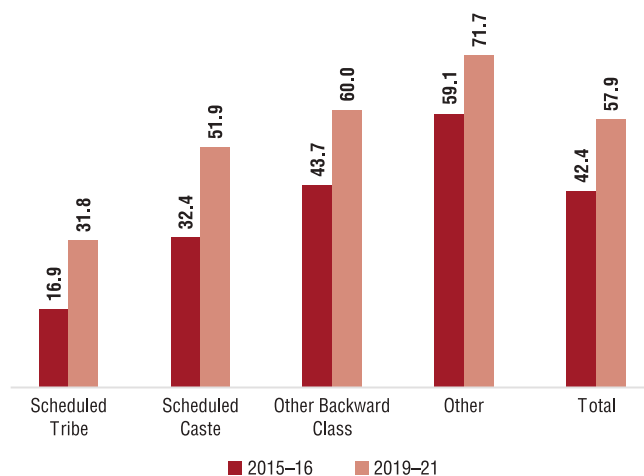
3.5.1 Access of Households to LPG for Cooking

Providing improved cooking fuel (Liquid Petroleum Gas) is a part of the government’s flagship programme, the Pradhan *Mantri Ujjwala Programme*. This initiative has significantly expanded access to clean cooking fuel among all social groups, including the STs. Among the non-polluting improved sources of cooking fuel, liquefied petroleum gas (LPG) is the most popular source. As per the NFHS 2019-21, some 31.8 per cent of the ST households have access to LPG as cooking fuel as compared

Figure 3.10b: Percentage of ST Households having Electricity in their Homes, 2019-21

to a corresponding figure of 57.9 per cent for all households. Across different social groups, STs have least access to LPG (Figure 3.11).

Overall, however, access to LPG for cooking is the least among STs in Odisha, Rajasthan, West Bengal and Jharkhand (all low on the HD scale), and the most in Karnataka, Sikkim, Mizoram, and Telangana (all high on the HD-scale) (Figure 3.12). Next, among the large states, the gap between the ST and non-ST households having gas connection is the most in Andhra Pradesh, Gujarat, Rajasthan, Madhya Pradesh and Maharashtra, and the least in Karnataka and Telangana (all high on the HD-scale). It is evident

Figure 3.11: Social group-wise Access to LPG used by households for cooking, 2019-21

Note: Clean fuel included Electricity, LPG/natural gas and biogas

Source: NFHS 2015-16, 2019-21

that measurement of the HD status of states opens the door to understand different facets of (under) development of a state/region.

Table 3.3 presents data on the beneficiaries of the Pradhan Mantri Ujjwala Yojana being covered as in August 2020. The official figures on this program are presented together for STs and SCs, and not separately for STs to be able to assess their exact share.

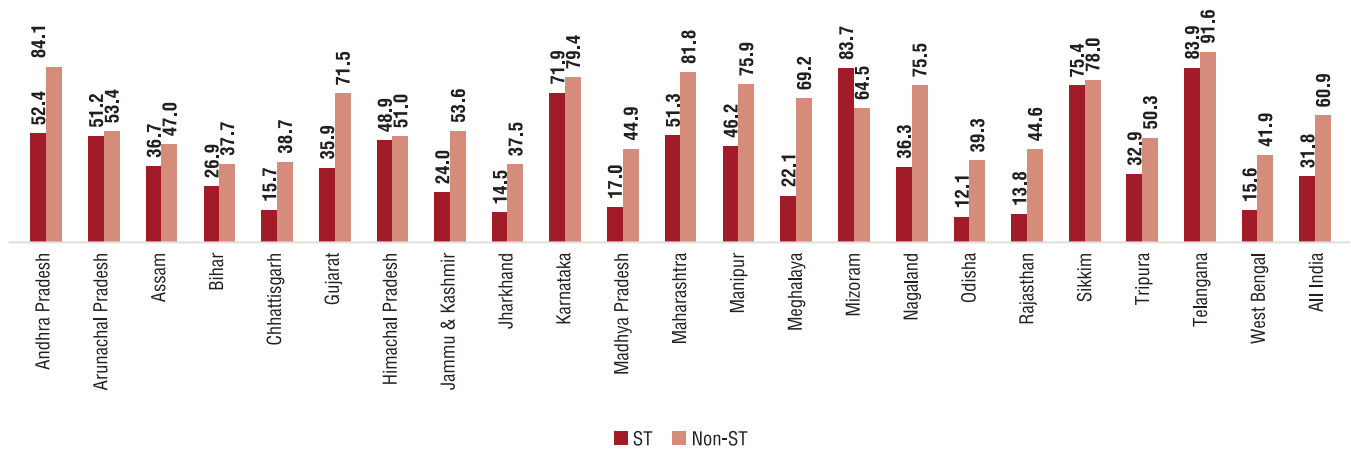
Box 3.5 Pradhan Mantri Ujjwala Yojana (PMUY)

PMUY is one of the largest social transformation programmes in the country to provide clean cooking fuel to Indian kitchens. This simple mechanism of providing universal access to LPG has transformed the lives of the destitute, empowering them through socio-economic inclusion.

One such success story is of Anupama Sahoo, a PMUY customer from Puri District in Odisha. It took much time for Anupama to collect fuel for cooking and there was a lot of smoke in the house while cooking. After using LPG, she has more time for herself and family. She now helps her husband in the shop and that has led to an increase in business.

Source: Barua, S.K & Agarwalla, S.K., *Lighting up Lives through Cooking Gas and Transforming Society*, IIM Ahmedabad, December 2018 <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1562566> <https://web.iima.ac.in/assets/snippets/workingpaperpdf/81981832018-12-05.pdf>

Figure 3.12: State-wise ST and Non-ST households with access to LPG as cooking fuel (per cent), 2019-21



Source: Calculated from NFHS 5, 2019-21

Table 3.3: State-wise beneficiaries of the Pradhan Mantri Ujjwala Yojana including the number of SC/ST Households as in August 2020

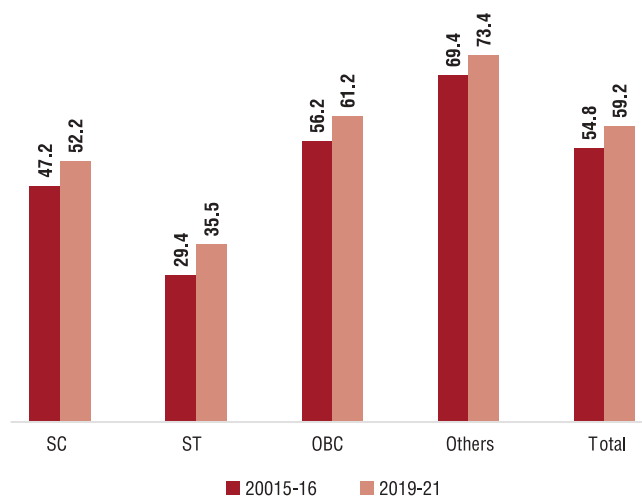
States/UTs/All-India	Total Connections Issued	Connections Issued to SC/ST	Percentage of Connections issued to SC/ST	ST population (per cent)
Bihar	8537893	2101262	24.61	1.3
Chhattisgarh	2989440	1671060	55.9	30.6
Jharkhand	3261556	1213834	37.22	26.2
Madhya Pradesh	7154600	3325631	46.48	21.1
Odisha	4740385	2006901	42.34	22.9
West Bengal	8856695	3606364	40.72	5.8
Gujarat	2901059	969959	33.43	14.8
Maharashtra	4428682	1429816	32.29	9.4
Rajasthan	6368525	2867831	45.03	13.5
Himachal Pradesh	135966	49920	36.72	5.7
J&K (including Ladakh)	1242080	298300	24.02	10.4
Andhra Pradesh	391860	136094	34.73	5.3
Karnataka	3146300	1208731	38.42	7
Telangana	1072321	496500	46.3	3.1
Arunachal Pradesh	44699	29186	65.29	68.8
Assam	3484901	877562	25.18	12.5
Manipur	156598	66177	42.26	40.9
Meghalaya	150744	122650	81.36	86.2
Mizoram	28118	25750	91.58	94.4
Nagaland	55140	48880	88.65	86.5
Sikkim	8752	2536	28.98	33.8
Tripura	271888	154350	56.77	31.8
All-India	80162429	30481683	38.02	8.6

Source: Lok Sabha Unstarred Question No. 936 (Feb. 8, 2021)

3.6 Housing Condition

The government has made renewed efforts to provide rural housing through the Pradhan Mantri Awaas Yojana, aiming to provide some 10 million houses. As per the NFHS-5, for 2019-21, which categorises the condition of housing structures as houses made from mud, thatch, or other low-quality materials as kachha houses (not good), houses that use partly low-quality and partly high-quality materials as semi-pucca houses (ordinary), and houses made with quality materials throughout, including the floor, roof, and exterior walls as pucca houses (good). Some 35.5 per cent of ST households have pucca housing compared to a corresponding figure of 59 per cent for non-ST households (aggregate) as in 2019-21. The STs having pucca houses has increased from about 29.2 per cent for the ST households in 2015-16 to 35.5 per cent. Evidently, despite an increase in access to better housing in the recent years, a disproportionately larger share of the ST households continue to dwell in poor quality houses.

Figure 3.13: Social group-wise households with good condition (pucca) of house structure, 2015-16 and 2019-21



Note: Improved Housing Structure: Houses made from mud, thatch, or other low-quality materials are called kachha houses, houses that use partly low-quality and partly high-quality materials are called semi-pucca houses, and houses made with high quality materials throughout, including the floor, roof, and exterior walls, are called pucca houses.

Source: Derived from NFHS 2015-16, NFHS 2019-21

Figure 3.14 shows that STs have poor housing conditions in Chhattisgarh, Jharkhand, Arunachal Pradesh, and Madhya Pradesh, all other than Arunachal Pradesh are low HD states: Arunachal Pradesh is an outlier. The ST houses are in good condition in Telangana, Andhra Pradesh and Mizoram. Elsewhere, the conditions lie in-between.

Seeing beyond Figures 3.13 and 3.14, the hilly states of the northern region exhibit the highest level of disparity between the ST and non-ST households in regard to 'good' housing. The gap between the STs and non-STs is particularly glaring in the states of Jammu & Kashmir (including Ladakh, 32 percentage points) and Himachal Pradesh (23 percentage points).

Box 3.6

Lack of Amenities in Remote Locations

Hathiyadilli village in Banswara district's Kushalgarh block is situated at the Rajasthan-Madhya Pradesh border. It is an uphill journey, almost 85 kilometres from Banswara and the terrain is marked by dense forests on both sides of the road, though dried during summer. The landscape of the village was one of a kind, as one narrow road leads through the various hamlets of the village, disbursed far away from each other.

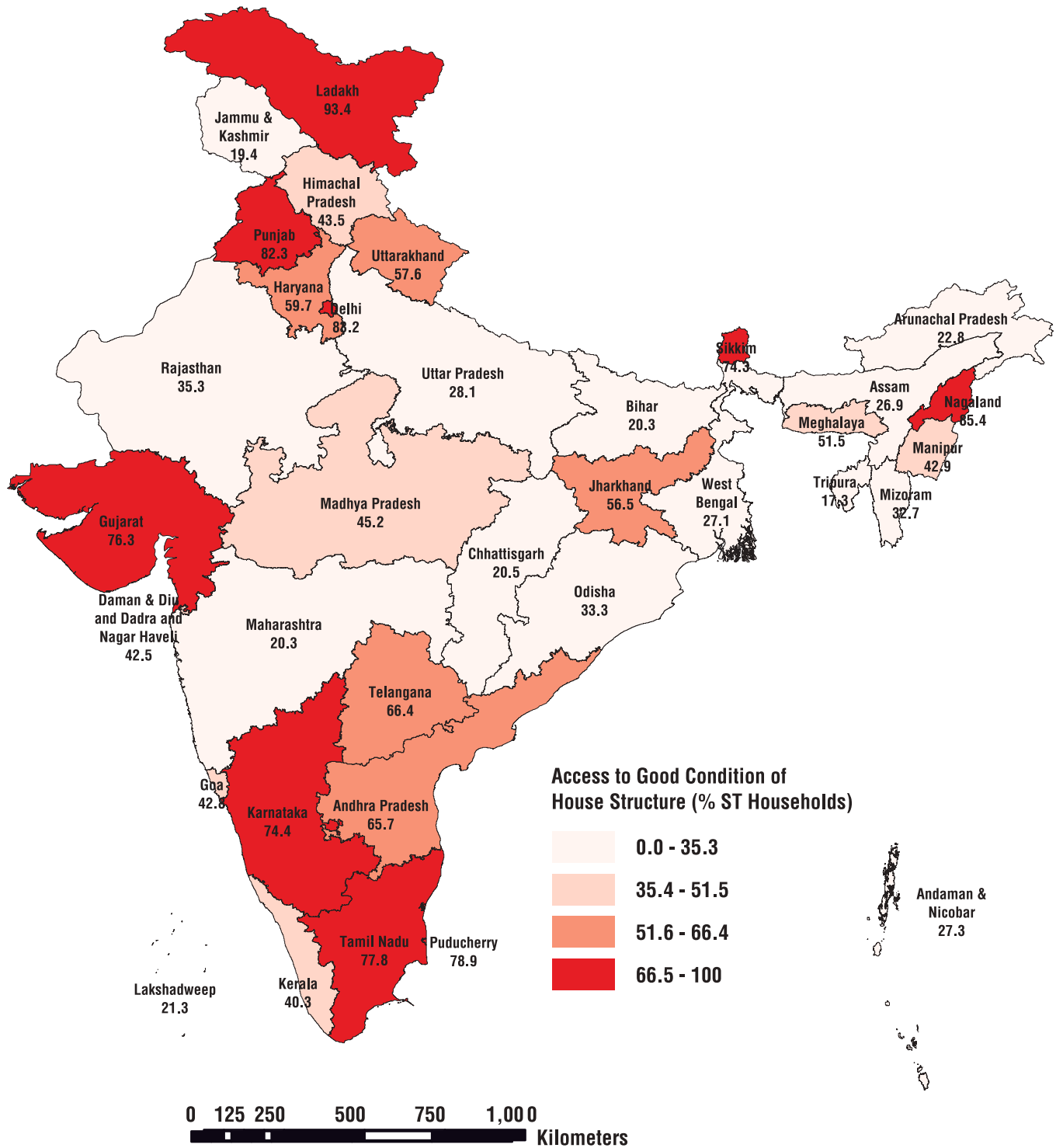
The village is not electrified as yet. People possessing mobile phones travel all the way to a market which is at least 4 kilometres away for the village, to charge their phones. Some houses have bulbs and tube lights put up that run on solar energy. There is scarcity of water both, for drinking and irrigation purposes. There is no hand-pump or well anywhere in the village and one has to travel a minimum of three kilometres to fetch water.

In order to access basic amenities such as taking someone to a hospital, or even sending children to school, one has to travel long distances. With no transportation facility to do so, the exercise becomes even more arduous.

In Billipara village the problem of drinking water and its accessibility is rampant. Water in the hand pumps dries up as the rainfall declines, lowering the ground level of water. In such a scenario almost, everyone has to walk down to the Panchayat office which has a hand pump that they can make use of.

In some like Polapan village in Banswara and Sevanagar in Pratapgarh district, toilets made under the Swachh Bharat Abhiyan are unused due to lack

Figure 3.14: State-wise ST households dwelling in pucca house structure (per cent), 2019-21



Source: Obtained from NFHS 2019-21

of availability of water in the area. A few of them also said that the amount promised by the government for construction of these toilets have not been credited to their accounts.

3.7 Summary of the Findings

- The ST households recorded a relatively higher level of improvement as compared to other social groups, mainly OBCs and 'Other' households, in terms of access to a motorable road, electricity for domestic use, and latrine for exclusive use of the household.
- While the States in the southern region exhibited a higher degree of access to motorable roads, they were also characterised by a high level of disparity between STs and non-STs. In contrast, the North-eastern States exhibit poor overall access to motorable roads, but they also exhibited relatively lower disparity between ST and non-ST households with regard to access to a motorable road.
- The overall access to electricity for domestic use is poorest among the States in the eastern and central region, while at the same time the disparity between the STs and the non-STs is also most glaring in this region. The gradient of disparity is substantially steep in the States of Odisha and Jharkhand, which are also characterised by the lowest proportions of electrified ST households in the country, despite being among the key States for electricity generation.
- The proportion of ST households with no access to latrine facility has declined considerably, though the relative decline is much lesser among the 'Other' social groups and the STs still account for one-third of the total or the highest proportion of households with absolutely no access to a toilet facility.
- The overall access to latrines for exclusive use of the household is higher in the North-eastern States, which also exhibit the lowest disparity between the ST and the non-ST households with regard to access to an individual household toilet facility. The STs across all the North-eastern States enjoy better access to a toilet facility as compared to their counterparts in all the other States.
- The ST households recorded the least improvement with regard to access to improved drainage facility. The overall access to improved drainage facility is higher among the states in the western and southern regions, but at the same time, these regions also account for the most glaring disparity between the STs and the non-STs.
- The ST households exhibited a marginal improvement in access to 'improved sources' of drinking water and recorded the least improvement among the all-social groups with regard to the availability of drinking water for exclusive use of the household.
- The overall access to drinking water for exclusive household use was higher among the states of the northern and western regions, but at the same time, these regions also accounted for the highest degree of disparity between the STs and non-STs. The North-eastern states, on the other hand, exhibited a relatively lower level of disparity among the STs and non-STs with regard to access to drinking water for exclusive use of the household.
- As regards access to improved cooking fuel, only 37 per cent of the ST households were found to have access to LPG while a majority of the ST households, at 58 per cent, still rely on firewood, chips, and crop residue as fuel for cooking.
- The states of the western region account for the highest overall access to LPG for cooking, but at the same time, they also recorded the highest disparity between the ST and non-ST households, while the southern states display the most equitable access among the STs and non-STs with regard to access to LPG for cooking.
- There was a marginal improvement in housing conditions among the ST households, while the other social groups, including SCs, OBCs, and 'Others' exhibited a slight decline in the proportion of households that had access to a 'good' housing structure. While the hilly states of the northern region accounted for the highest disparity between the ST and non-ST households regarding access to 'good' houses, the southern states displayed the most equitable access among both the STs and their non-ST counterparts.

APPENDIX TO CHAPTER 3: TABLES

Table A.3.1: Approach by motorable road/lane/constructed path with/without streetlight (per cent of households), all-India/state-wise

States/UTs/All-India	STs		Non-STs			All
	SCs	OBCs	Others	Total		
Eastern and Central region						
Bihar	64.9	37.5	41.7	53.1	42.5	42.8
Chhattisgarh	50.5	56.2	61.5	70.1	61.4	57.9
Jharkhand	39.7	32.1	47.9	66.3	47.8	45.3
Madhya Pradesh	37.4	52.5	58.2	66.1	58.6	54.5
Odisha	40.3	42.7	60.2	74.3	60.1	54.6
West Bengal	40.4	37.3	41.2	45.5	42.7	42.6
Western region						
Dadra & Nagar Haveli	67.7	**	80.8	68.1	76.2	73.5
Daman & Diu	**	**	52.4	**	52.4	54.0
Goa	**	**	**	86.5	80.7	78.0
Gujarat	50.3	65.3	54.1	75.3	63.8	61.5
Maharashtra	54.4	61.6	63.1	63.5	63.1	62.2
Rajasthan	35.8	53.8	55.3	63.1	56.5	53.5
Northern region						
Himachal Pradesh	22.6	25.2	39.7	42.7	37.5	36.6
Jammu & Kashmir (including Ladakh)	12.0	**	61.3	45.6	46.5	44.0
Uttar Pradesh	36.9	35.4	43.3	52.0	43.0	42.9
Uttarakhand	**	49.9	65.8	62.1	60.2	60.0
Southern region						
Andaman & Nicobar Islands	**	**	**	63.4	68.2	66.0
Andhra Pradesh	67.2	74.3	75.3	80.5	76.4	75.7
Karnataka	74.3	73.0	75.4	78.5	75.9	75.8
Kerala	38.9	63.0	77.1	78.8	76.3	75.7
Lakshadweep	70.9	NA	NA	NA	NA	70.9
Tamil Nadu	77.5	77.3	75.0	88.9	75.9	75.9
Telangana	56.0	78.4	81.6	89.8	82.6	80.5
North-eastern region						
Arunachal Pradesh	55.7	**	**	63.0	65.3	58.9
Assam	35.8	44.9	37.6	34.6	36.5	36.4
Manipur	67.2	33.9	75.3	54.9	70.0	68.9
Meghalaya	39.3	**	**	56.6	54.0	41.2
Mizoram	71.3	**	**	**	**	70.5
Nagaland	35.8	**	**	**	**	35.6
Sikkim	38.1	**	41.2	53.2	44.1	42.0
Tripura	37.1	46.3	54.1	54.3	51.7	47.0
All-India	46.7	52.6	59.8	62.5	59.1	57.9

Note: **Inadequate sample size (N less than 30). NA means Not Available

Source: NSS 76th Round, July–December 2018 (unit-level data).

Table A.3.2: FHTCs provided (per cent), all-India/state-wise (as on 23 August 2020)

States/UTs/All-India	FHTCs (per cent)	ST population (per cent)
Eastern and Central region		
Bihar	48.2	1.3
Chhattisgarh	12.0	30.6
Jharkhand	9.1	26.2
Madhya Pradesh	18.7	21.1
Odisha	11.8	22.9
West Bengal	2.1	5.8
Western region		
Dadra & Nagar Haveli	**	52.0
Daman & Diu	**	6.3
Goa	89.1	10.2
Gujarat	74.9	14.8
Maharashtra	43.2	9.4
Rajasthan	14.3	13.5
Northern region		
Himachal Pradesh	62.1	5.7
Jammu & Kashmir	44.2	10.4
Ladakh	4.7	79.5
Uttar Pradesh	4.6	0.6
Uttarakhand	17.3	2.9
Southern region		
Andaman & Nicobar Islands	44.4	7.5
Andhra Pradesh	35.0	5.3
Karnataka	29.0	7.0
Kerala	26.3	1.5
Lakshadweep	**	94.8
Tamil Nadu	20.8	1.1
Telangana	98.3	3.1
North-eastern region		
Arunachal Pradesh	19.5	68.8
Assam	3.6	12.5
Manipur	12.8	40.9
Meghalaya	2.3	86.2
Mizoram	24.5	94.4
Nagaland	4.8	86.5
Sikkim	67.1	33.8
Tripura	10.9	31.8
All India		8.6

Note: ** Data not available. NA means Not Available, FHTC - Functional Household Tap Connection, FHTC - Functional Household Tap Connection

Source: Jal Jeevan Mission, Ministry of Jal Shakti, GoI, <https://ejalshakti.gov.in/WaterDashboard/HouseHoldConnection.aspx>

Table A.3.3: Access to the principal source of drinking water for exclusive household use (per cent), all India/state-wise

States/UTs/All-India	STs		Non-STs		Total	All
	SCs	OBCs	Others			
Eastern and Central region						
Bihar	69.8	63.8	73.6	78.6	72.1	72.1
Chhattisgarh	26.5	39.1	41.4	68.1	44.2	38.5
Jharkhand	10.9	22.0	31.2	48.9	32.2	25.8
Madhya Pradesh	13.8	31.1	44.0	60.5	44.6	38.6
Odisha	5.1	16.1	23.6	42.0	27.3	21.1
West Bengal	26.9	27.3	27.7	35.6	32.3	32.0
Western region						
Dadra & Nagar Haveli	16.2	**	11.3	28.4	18.6	17.8
Daman & Diu	**	**	16.1	**	17.3	16.7
Goa	**	**	**	91.8	85.9	84.6
Gujarat	46.8	70.6	70.2	**	74.3	69.7
Maharashtra	33.7	59.5	**	**	71.2	67.5
Rajasthan	25.1	54.3	55.8	64.7	57.3	52.5
Northern region						
Himachal Pradesh	45.0	57.1	58.1	59.5	58.6	57.7
Jammu & Kashmir (including Ladakh)	37.8	63.0	85.3	79.8	79.3	76.3
Uttar Pradesh	35.2	47.3	59.3	65.7	57.4	57.1
Uttarakhand	**	64.2	73.6	78.3	73.9	73.9
Southern region						
Andaman & Nicobar Islands	**	**	**	70.3	70.3	71.8
Andhra Pradesh	7.5	15.7	22.9	25.6	22.2	21.1
Karnataka	41.7	51.5	52.6	54.0	52.8	52.0
Kerala	64.2	68.2	84.2	84.7	82.8	82.5
Lakshadweep	90.2	NA	NA	NA	NA	NA
Tamil Nadu	21.7	30.5	39.3	40.8	37.2	36.9
Telangana	25.5	34.9	37.5	39.2	37.4	36.4
North-eastern region						
Arunachal Pradesh	68.5	**	**	63.9	64.7	67.2
Assam	79.7	78.6	82.4	80.8	81.2	81.0
Manipur	47.2	41.2	21.2	32.7	23.9	33.4
Meghalaya	26.7	**	**	40.5	43.0	28.8
Mizoram	61.7	**	**	**	16.6	60.2
Nagaland	44.3	**	**	**	43.2	44.3
Sikkim	89.5	80.9	77.0	70.9	76.5	81.2
Tripura	24.2	43.5	53.0	52.3	49.7	41.5
All India	28.4	44.9	53.5	61.5	54.1	51.7

Note: **Inadequate sample size (N less than 30). NA means Not Available

Source: NSS 76th Round, 2018 (unit-level data).

Table A.3.4: Access to latrine for exclusive household use (per cent), all-India/state-wise

States/UTs/All-India	STs		Non-STs		Total	All
	SCs	OBCs	Others			
Eastern and Central region						
Bihar	28.9	40.1	59.9	79.0	58.4	58.0
Chhattisgarh	77.6	83.4	86.5	94.4	86.8	83.8
Jharkhand	49.8	52.5	61.9	80.0	62.9	59.0
Madhya Pradesh	61.3	66.3	70.7	81.4	72.0	69.9
Odisha	30.7	36.1	48.5	65.2	50.5	45.0
West Bengal	50.4	57.6	54.3	61.3	59.4	58.7
Western region						
Dadra & Nagar Haveli	70.8	**	**	**	19.0	35.9
Daman & Diu	**	**	46.4	**	53.5	51.5
Goa	52.4	**	**	90.4	84.7	81.5
Gujarat	60.8	74.0	70.7	89.2	78.4	75.5
Maharashtra	55.2	66.5	75.5	78.6	75.8	73.7
Rajasthan	40.7	65.4	66.6	82.4	69.6	65.3
Northern region						
Himachal Pradesh	**	79.9	88.5	86.7	85.4	84.9
Jammu & Kashmir (including Ladakh)	51.2	52.6	80.0	82.9	79.9	77.8
Uttar Pradesh	30.8	42.2	50.6	74.5	53.2	52.9
Uttarakhand	**	83.8	85.3	95.5	90.4	90.2
Southern region						
Andaman & Nicobar Islands	**	**	100.0	77.5	81.6	82.6
Andhra Pradesh	44.5	60.3	70.6	81.9	71.4	69.4
Karnataka	71.1	65.7	76.8	84.5	77.2	76.7
Kerala	93.8	92.0	96.8	94.7	95.7	95.6
Lakshadweep	100.0	NA	NA	NA	NA	NA
Tamil Nadu	46.7	50.1	73.2	90.4	68.0	67.6
Telangana	53.3	67.6	73.5	86.0	74.9	73.2
North-eastern region						
Arunachal Pradesh	89.8	**	**	90.1	89.4	89.7
Assam	94.9	89.5	93.4	94.0	93.4	93.7
Manipur	97.8	93.6	81.7	81.3	82.6	88.8
Meghalaya	93.2	100.0	**	85.4	87.5	92.4
Mizoram	99.5	**	100.0	**	99.1	99.5
Nagaland	88.6	**	**	**	54.6	87.1
Sikkim	94.3	90.1	94.6	74.3	91.8	92.7
Tripura	87.4	81.0	81.5	84.9	82.6	84.1
All-India	57.8	57.3	68.2	78.9	69.2	68.1

Note: **Inadequate sample size (N less than 30). NA means Not Available

Source: NSS 76th Round, 2018 (unit-level data).

Table A.3.5: Households with no access to latrine facility (per cent), all-India/state-wise

States/UTs/All-India	STs		Non-STs			All
	SCs	OBCs	Others	Total		
Eastern and Central region						
Bihar	63.6	53.4	29.5	12.7	32.3	32.8
Chhattisgarh	13.2	**	3.8	**	4.6	7.4
Jharkhand	44.0	42.4	30.7	**	29.0	33.6
Madhya Pradesh	32.5	26.0	21.6	9.7	20.0	22.5
Odisha	55.0	56.5	43.5	25.4	41.3	45.1
West Bengal	35.8	15.0	10.0	8.0	10.1	11.9
Western region						
Dadra & Nagar Haveli	**	**	**	**	**	7.7
Daman & Diu	**	**	**	**	**	0.1
Goa	**	**	**	**	**	7.0
Gujarat	29.6	11.9	16.2	4.5	11.0	14.2
Maharashtra	35.3	17.8	12.0	6.8	10.3	12.8
Rajasthan	55.8	24.4	24.6	8.3	21.2	26.3
Northern region						
Himachal Pradesh	**	**	**	**	**	2.6
Jammu & Kashmir (including Ladakh)	48.3	34.6	**	6.1	8.8	11.7
Uttar Pradesh	64.7	50.3	39.2	15.9	37.4	37.7
Uttarakhand	**	**	**	0.8	2.1	2.1
Southern region						
Andaman & Nicobar Islands	**	**	**	**	**	3.4
Andhra Pradesh	33.9	22.2	15.2	7.2	14.6	16.0
Karnataka	20.5	27.9	19.1	11.5	18.3	18.5
Kerala	**	**	**	0	0.2	0.2
Lakshadweep	NA	NA	NA	NA	NA	NA
Tamil Nadu	25.3	38.3	16.5	2.3	21.5	21.5
Telangana	34.0	18.6	11.6	**	10.8	12.7
North-eastern region						
Arunachal Pradesh	**	0	0	0	0	1.2
Assam	**	**	**	**	**	2.2
Manipur	**	**	**	**	**	0.0
Meghalaya	**	**	**	**	**	1.5
Mizoram	**	**	**	**	**	0
Nagaland	**	**	**	**	**	0
Sikkim	**	**	0	0	0	0
Tripura	**	**	**	**	**	0.6
All-India	32.8	30.3	21.0	7.5	18.9	20.2

Note: **Inadequate sample size (N less than 30). NA means Not Available

Source: NSS 76th Round, 2018 (unit-level data).

Table A.3.6: ST share in total IHHLs achievement under the Swachh Bharat Mission (Gramin) during 2018–19 (up to 31 March 2019) (per cent)

States/UTs/All-India	ST share in total IHHLs achievement (per cent)	ST population (per cent)
Eastern and Central region		
Bihar	2.1	1.3
Chhattisgarh	44.7	30.6
Jharkhand	26.3	26.2
Madhya Pradesh	35.2	21.1
Odisha	23.6	22.9
West Bengal	21.0	5.8
Western region		
Dadra & Nagar Haveli	**	52.0
Daman & Diu	**	6.3
Goa	**	10.2
Gujarat	36.8	14.8
Maharashtra	17.0	9.4
Rajasthan	**	13.5
Northern region		
Himachal Pradesh	0.0	5.7
Jammu & Kashmir (including Ladakh)	14.6	10.4
Uttar Pradesh	1.9	0.6
Uttarakhand	1.4	2.9
Southern region		
Andaman & Nicobar Islands	**	7.5
Andhra Pradesh	7.2	5.3
Karnataka	12.6	7.0
Kerala	**	1.5
Lakshadweep	**	94.8
Tamil Nadu	2.1	1.1
Telangana	20.5	3.1
North-eastern region		
Arunachal Pradesh	78.6	68.8
Assam	15.2	12.5
Manipur	60.9	40.9
Meghalaya	100.0	86.2
Mizoram	100.0	94.4
Nagaland	99.5	86.5
Sikkim	**	33.8
Tripura	37.3	31.8
All-India	9.01	8.6

Note: ** Data not available. NA means Not Available, IHHLs - Individual Household Latrine

Source: Annual Report, 2018-19, Ministry of Drinking Water and Sanitation, GoI.

Table A.3.7: Households with access to improved drainage* (per cent), all-India/state-wise

States/UTs/All-India	STs		Non-STs			All
	SCs	OBCs	Others	Total		
Eastern and Central region						
Bihar	**	11.3	22.7	33.9	21.9	21.8
Chhattisgarh	15.5	15.2	30.1	58.7	30.3	25.5
Jharkhand	5.3	**	13.6	35.2	15.3	12.3
Madhya Pradesh	7.7	21.2	25.3	52.5	30.1	25.7
Odisha	6.3	**	**	**	**	13.0
West Bengal	4.8	7.3	9.2	20.9	15.7	15.0
Western region						
Dadra & Nagar Haveli	**	**	71.3	67.1	69.9	49.7
Daman & Diu	**	**	61.5	**	64.1	61.7
Goa	**	**	**	79.5	75.9	71.9
Gujarat	25.1	60.5	61.4	84.7	70.6	63.0
Maharashtra	20.4	44.3	49.6	66.1	56.8	53.2
Rajasthan	13.6	27.4	31.9	50.1	34.6	31.5
Northern region						
Himachal Pradesh	63.9	26.5	17.8	46.5	34.6	36.5
Jammu & Kashmir (including Ladakh)	15.4	25.5	32.5	45.8	41.9	39.9
Uttar Pradesh	17.2	26.7	38.0	57.3	38.9	38.6
Uttarakhand	**	12.0	30.1	43.8	33.3	33.1
Southern region						
Andaman & Nicobar Islands	**	**	**	**	**	19.9
Andhra Pradesh	21.7	34.4	51.0	61.6	50.3	48.3
Karnataka	32.8	33.0	48.8	63.3	50.3	49.0
Kerala	**	36.9	59.9	69.7	60.8	60.1
Lakshadweep	35.9	NA	NA	NA	NA	35.9
Tamil Nadu	33.9	24.0	43.1	79.0	39.3	39.2
Telangana	44.1	48.1	58.2	76.4	60.0	58.7
North-eastern region						
Arunachal Pradesh	3.1	**	**	**	8.5	4.9
Assam	**	**	5.4	6.6	6.3	5.7
Manipur	**	**	**	**	**	1.6
Meghalaya	5.4	**	**	**	**	6.7
Mizoram	10.7	**	**	**	**	10.4
Nagaland	6.3	**	**	**	**	6.5
Sikkim	23.5	**	26.1	44.4	29.6	27.4
Tripura	**	**	**	6.6	3.7	2.9
All-India	15.0	26.1	38.7	51.6	40.0	37.6

Note: *Improved drainage includes underground and covered pucca; **Inadequate sample size (N less than 30). NA means Not Available

Source: NSS 76th Round, 2018 (unit-level data).

Table A.3.8: Households with no drainage facility (per cent), all-India/state-wise

States/UTs/All India	STs		Non-STs			All
	SCs	OBCs	Others	Total		
Eastern and Central region						
Bihar	38.6	40.6	32.5	24.2	33.0	33.1
Chhattisgarh	46.5	35.0	27.3	**	27.2	33.5
Jharkhand	56.1	55.2	42.4	21.2	41.5	45.9
Madhya Pradesh	61.9	27.0	25.6	16.0	23.9	31.3
Odisha	77.5	80.2	73.8	59.0	70.9	72.8
West Bengal	69.8	62.2	59.1	48.4	53.5	54.6
Western region						
Dadra & Nagar Haveli	84.2	**	**	**	**	36.5
Daman & Diu	**	**	**	**	**	5.6
Goa	**	**	**	**	**	2.9
Gujarat	61.5	22.3	24.6	10.5	18.7	25.9
Maharashtra	42.9	18.7	12.5	11.9	13.1	16.0
Rajasthan	54.8	35.1	33.6	17.4	30.6	34.2
Northern region						
Himachal Pradesh	**	**	**	8.4	9.1	8.7
Jammu & Kashmir (including Ladakh)	45.9	**	**	16.5	18.4	20.4
Uttar Pradesh	46.4	21.5	15.6	5.7	15.1	15.5
Uttarakhand	**	36.8	6.2	18.2	19.4	19.5
Southern region						
Andaman & Nicobar Islands	**	**	**	17.0	14.3	14.6
Andhra Pradesh	50.4	47.8	25.6	20.2	28.7	30.2
Karnataka	17.7	18.3	15.8	11.0	14.8	15.1
Kerala	62.9	46.9	23.0	17.4	23.5	24.2
Lakshadweep	45.5	NA	NA	NA	NA	45.5
Tamil Nadu	37.0	38.9	29.0	**	30.9	31.0
Telangana	35.0	19.3	14.5	5.0	13.5	15.2
North-eastern region						
Arunachal Pradesh	46.9	**	**	36.0	34.7	42.8
Assam	51.4	43.5	38.4	54.8	48.0	48.5
Manipur	17.5	**	26.2	41.8	26.8	23.0
Meghalaya	11.5	**	**	18.8	19.9	12.6
Mizoram	26.9	**	**	**	**	26.6
Nagaland	6.6	**	**	**	**	6.5
Sikkim	**	**	**	**	**	4.2
Tripura	77.2	74.1	64.3	60.6	66.1	69.7
All-India	52.0	33.6	25.3	21.3	25.8	28.3

Note: **Inadequate sample size (N less than 30). NA means Not Available

Source: NSS 76th Round, 2018 (unit-level data).

Table A.3.9: Households with electricity for domestic use (per cent), all-India/state-wise

States/UTs/All India	STs		Non-STs			All
	SCs	OBCs	Others	Total		
Eastern and Central region						
Bihar	86.4	96.4	98.2	99.4	98.0	97.8
Chhattisgarh	97.1	98.4	99.4	100.0	99.3	98.6
Jharkhand	80.1	86.9	91.9	97.9	91.9	88.3
Madhya Pradesh	93.9	97.8	97.9	98.8	98.1	97.2
Odisha	82.9	93.2	93.9	97.3	94.8	91.5
West Bengal	92.0	97.2	97.5	98.9	98.2	97.8
Western region						
Dadra & Nagar Haveli	**	**	100.0	100.0	100.0	100.0
Daman & Diu	100.0	**	100.0	100.0	100.0	100.0
Goa	**	**	**	99.4	99.5	99.5
Gujarat	97.0	96.6	97.9	99.1	98.2	98.0
Maharashtra	91.5	96.1	98.7	99.6	98.8	98.0
Rajasthan	81.5	96.1	96.7	98.2	96.9	94.6
Northern region						
Himachal Pradesh	100.0	99.7	98.7	99.3	99.2	99.3
Jammu & Kashmir (including Ladakh)	100.0	100.0	100.0	99.9	99.9	99.9
Uttar Pradesh	67.5	77.3	84.6	93.2	84.4	84.2
Uttarakhand	**	96.9	99.6	98.8	98.6	98.6
Southern region						
Andaman & Nicobar Islands	**	**	100.0	96.6	97.4	97.5
Andhra Pradesh	98.7	99.1	99.7	99.7	99.6	99.5
Karnataka	98.0	98.1	99.1	99.4	99.0	98.9
Kerala	100.0	99.0	99.9	99.6	99.7	99.7
Lakshadweep	100.0	NA	NA	NA	NA	100.0
Tamil Nadu	98.9	98.2	99.2	100.0	99.0	98.9
Telangana	100.0	99.1	99.9	100.0	99.8	99.8
North-eastern region						
Arunachal Pradesh	98.0	**	**	95.9	96.2	97.4
Assam	91.2	97.8	92.2	95.9	94.7	94.1
Manipur	97.7	100.0	99.7	100.0	99.8	98.9
Meghalaya	91.6	**	**	98.3	98.2	92.4
Mizoram	98.7	**	**	**	**	98.6
Nagaland	100.0	**	**	**	**	100.0
Sikkim	100.0	100.0	99.8	100.0	99.8	99.9
Tripura	91.1	96.4	97.1	98.2	97.3	95.3
All India	91.0	93.4	95.9	98.5	96.2	95.7

Note: **Inadequate sample size (N less than 30). NA means Not Available

Source: NSS 76th Round, 2018 (unit-level data).

Table A.3.10: LPG used by households for cooking (per cent), all-India/state-wise

States/UTs/All-India	STs		Non-STs			All
	SCs	OBCs	Others	Total		
Eastern and Central region						
Bihar	39.6	36.0	50.0	67.3	49.5	49.4
Chhattisgarh	23.5	41.2	44.1	86.9	48.7	40.6
Jharkhand	17.2	27.8	37.1	65.5	39.7	32.9
Madhya Pradesh	27.5	47.6	49.1	70.4	53.3	48.3
Odisha	11.2	26.5	37.9	56.8	40.7	32.6
West Bengal	20.5	34.5	31.8	51.7	44.5	42.8
Western region						
Dadra & Nagar Haveli	64.9	**	93.8	100.0	97.1	86.5
Daman & Diu	**	**	93.5	98.7	90.9	87.0
Goa	**	**	**	95.2	95.8	93.5
Gujarat	38.4	62.6	66.6	82.2	72.4	66.7
Maharashtra	50.5	74.1	78.2	79.7	78.3	75.6
Rajasthan	27.4	49.6	45.2	71.5	51.7	48.1
Northern region						
Himachal Pradesh	33.8	43.8	48.7	59.8	53.1	51.9
Jammu & Kashmir (Including Ladakh)	28.2	55.5	83.4	70.4	71.3	68.1
Uttar Pradesh	28.8	40.8	47.4	70.9	50.4	50.2
Uttarakhand	**	43.5	79.8	77.1	70.1	69.9
Southern region						
Andaman & Nicobar Islands	**	**	**	80.7	81.6	81.8
Andhra Pradesh	56.1	76.7	83.0	89.1	83.3	81.3
Karnataka	77.6	73.2	81.1	87.8	81.7	81.4
Kerala	**	37.3	58.9	68.1	59.7	58.9
Lakshadweep	61.7	NA	NA	NA	NA	61.7
Tamil Nadu	68.5	80.2	89.0	97.3	87.0	86.7
Telangana	88.8	92.0	90.2	91.9	90.8	90.7
North-eastern region						
Arunachal Pradesh	65.1	**	**	62.8	63.8	64.7
Assam	58.3	71.6	62.0	56.0	59.4	59.2
Manipur	37.2	82.6	81.8	67.9	80.6	62.9
Meghalaya	30.0	**	**	66.9	67.0	34.7
Mizoram	75.4	**	**	**	42.5	74.3
Nagaland	58.9	**	**	**	81.7	59.9
Sikkim	98.1	96.5	95.8	91.2	95.2	96.3
Tripura	21.5	48.1	50.1	53.4	50.6	41.3
All India	36.6	53.8	63.3	72.3	64.0	61.4

Note: **Inadequate sample size (N less than 30). NA means Not Available

Source: NSS 76th Round (unit-level data).

Table A.3.11: Households with good condition of house structure (per cent), all-India/state-wise

States/UTs/All India	STs		Non-STs			All
	SCs	OBCs	Others	Total		
Eastern and Central region						
Bihar	**	15.9	28.9	45.8	28.6	28.6
Chhattisgarh	23.0	40.0	39.4	68.2	43.1	36.6
Jharkhand	16.7	21.2	29.0	47.0	30.3	26.2
Madhya Pradesh	21.5	21.4	32.0	49.9	33.4	31.1
Odisha	24.3	20.0	30.1	43.8	31.7	29.7
West Bengal	21.7	35.6	40.8	47.8	43.6	42.1
Western region						
Dadra & Nagar Haveli	**	**	**	**	**	24.1
Daman & Diu	**	**	36.7	**	40.1	38.3
Goa	**	**	**	69.9	63.4	60.6
Gujarat	37.9	38.6	39.6	66.7	50.4	48.3
Maharashtra	20.7	31.1	38.9	43.6	40.1	38.2
Rajasthan	33.3	36.3	45.4	62.8	46.9	44.8
Northern region						
Himachal Pradesh	28.4	40.5	45.1	60.2	51.6	50.1
Jammu & Kashmir (including Ladakh)	10.7	31.4	34.3	45.2	42.2	39.9
Uttar Pradesh	17.9	21.4	29.2	45.6	30.4	30.3
Uttarakhand	**	23.9	47.0	62.9	50.2	50.2
Southern region						
Andaman & Nicobar Islands	**	**	**	35.7	35.3	34.4
Andhra Pradesh	55.7	46.4	59.2	68.8	59.0	58.8
Karnataka	56.8	43.2	56.1	68.6	57.5	57.5
Kerala	54.4	50.2	76.5	77.8	74.4	74.1
Lakshadweep	72.5	NA	NA	NA	NA	72.5
Tamil Nadu	56.3	43.2	63.4	76.1	58.7	58.7
Telangana	39.7	56.1	59.4	79.4	62.8	60.9
North-eastern region						
Arunachal Pradesh	52.5	**	**	54.6	53.5	52.8
Assam	26.8	30.2	26.5	32.3	30.0	29.5
Manipur	22.5	16.9	21.0	33.0	21.7	22.0
Meghalaya	51.0	**	**	27.3	33.5	48.7
Mizoram	56.7	71.3	**	**	45.7	56.4
Nagaland	55.0	**	**	**	59.5	55.2
Sikkim	50.4	**	58.1	79.3	61.8	57.7
Tripura	17.6	29.6	29.7	38.0	32.7	27.8
All India	29.8	31.6	43.6	53.4	44.1	42.7

Note: **Inadequate sample size (N less than 30). NA means Not Available

Source: NSS 76th Round, 2018 (unit-level data).

C H A P T E R

4

Employment and Livelihoods

Employment and Livelihoods

The human development status of the ST communities, as shown in Chapter 2, is lower than that of both the general category population as well as the OBCs, and, in many cases, even the SCs. One of the reasons for this pertains to their livelihood options, which provide them less earnings as compared to those of many others. The Indian Constitution and successive development plans have underscored the need for implementing policies that offer development opportunities, extend welfare, and provide protection to these populations. Different schemes have also been formulated and implemented for enhancing their livelihood opportunities in order to improve their human development status. However, despite all efforts, the STs continue to lag behind the other social groups (namely, the SCs, OBCs, and 'Others') on several development indicators. Following are the reasons for this state of affairs in recent years:

1. There has been a continuous decline in forestlands and common lands due to urbanisation, expanding agriculture, plantations, setting up of wildlife reserves, national parks, and mega projects of mining and hydroelectricity, all of which have reduced the traditional habitat areas of the STs.
2. While subsidies/affirmative actions have been extended to the ST communities, these measures do not seem to adequately match in scale the kinds of handicaps they have historically faced and/or are facing.
3. Despite the facilities extended to them through various schemes, these schemes are not implemented efficiently.

All this results in persistent and continuously disadvantaging the STs. Data suggest that the STs suffer from (disguised) unemployment, income poverty, poor health, low education, and limited livelihood opportunities.

This chapter addresses different facets of livelihood being adopted by the ST communities, including the status, key issues, and the way forward. The chapter is divided into eight substantive sections. Section 2 discusses the overall resource base, agriculture, and non-timber forest produce (NTFP); Section 3 focuses on employment, work participation, the status of employment, the industry of employment and occupations, and unemployment; Section 4 examines expenditures and wages; Section 5 assesses migration; Section 6 focuses on different policy programmes; and Section 7 provides the conclusion for the chapter. The main data sources are the Census of India reports for 2001 and 2011; the National Sample Survey (NSS) Rounds 55 and 68 (1999-2000; 2011-12); the Periodic Labour Force Surveys (PFLS) up to 2021-22; data from Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) for 2010-19; Agricultural Census reports; and other relevant data in the public domain. The period of study covers the last two decades of the current millennium.

4.1 Resource Base and Agriculture among STs

This section examines the resource base of the STs in terms of their population, land ownership, agriculture, and access to forests and non-timber forest produce.

4.1.1 The Population Base

The share of the ST population aged 15+ years stood at 9.3 per cent of the country’s total population in 2021-22 (Source: PLFS), which represents a marginal increase in the last two decades from 8.6 per cent in 1999-2000. The share of STs in the labour force (11.6 per cent) is a little more than their total population share. ST farmers control about 11.9 per cent of the total cultivable land in the country, suggesting that the amount of land owned by these communities is higher than their proportion in the population. However, this also suggests that they depend more on agriculture (including swidden-type cultivation) for their livelihoods. It has also been observed that ST households have had customary/ usufructuary ownership over forestlands and lands closer to their settlements.

The population of STs in the Northeast region accounts for about 12 per cent of the total ST population in the country, seen from the same sources above. If Assam is excluded, then the ST population in the Northeast reduces to about eight per cent of the total ST population.

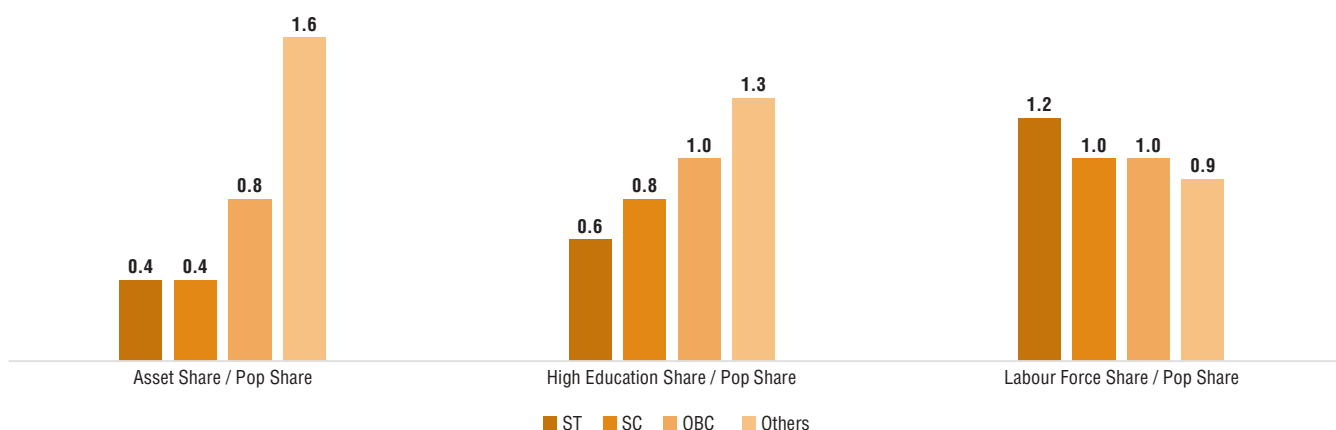
Among other factors, ST populations are disadvantaged in terms of human capital

endowment. Data from the early years of the second decade of the present millennium show that only 5.6 per cent of the STs were educated up to “secondary” and higher levels, with the corresponding figure being much higher for other social categories. Data on the share of the population to the share of assets (ratio), and the share of the highly educated population to the total population (ratio), show that the STs fare poorly as compared to OBCs and the general category populations. Conversely, the labour participation rate among them is the highest, implying that they begin to work at a comparatively younger age (Figure 4.1). Overall, STs have poor endowments of assets or education as they come into the labour force.

4.1.2 Pattern of Landholdings

Table 4.1 exhibits the distribution of ownership of agricultural landholdings among different social groups. The majority of ST households own marginal landholdings. About 9 per cent of them are landless and 85 per cent of them own marginal and small holdings according to the NSSO 2019 survey. The average landholding size is slightly higher among the STs compared to SCs. This is expected as members of the ST community are principally cultivators. Their

Figure 4.1: Asset-population share, higher education-population share and labour force-population share (to be done for 77th round of NSS 2019 and PLFS 2021-22)



- Notes:
1. (Asset share)/ (population share) is calculated as the per cent value of different assets owned by STs to total assets, divided by the population share of STs (per cent)—it is a unit free number
 2. (Higher education)/ (population share) is calculated as the per cent value of educated ST populations to total educated.
 3. “Others” exclude populations of SC, ST and OBC.

Source: NSS 77th Round, 2019; PLFS, NSSO, 2021-22.

lands are also partially protected by legislations that restrict land transfers from STs to non-STs. However, these measures still do not translate into better incomes because the productivity of their lands is low due to the predominant use of traditional methods of farming. In some cases, the lands owned by them are hilly and undulating, and thus of inferior quality with little or no irrigation facilities. The wheat or paddy yield rate in, say Punjab, is four to five times higher than in the districts dominated by the ST population, such as in central India.

Table 4.1: Distribution of households by land size-category, by household type, 2019 (per cent)

Land size class (ha)	ST	SC	OBC	Others	All
Landless ≤ 0.002	9.0	9.0	8.5	6.4	8.2
0.002-1.000	71.8	84.8	75.7	72.4	76.5
1.000-2.000	13.5	4.2	9.5	11.8	9.3
2.000-4.000	4.6	1.7	4.5	7.0	4.5
4.000-10.000	1.0	0.3	1.6	2.2	1.4
>10.000	0.1	0.0	0.2	0.2	0.1
Total	100	100	100	100	100

Source: NSS 77th Round, 2019, NSSO.

A disquieting statistic is that about nine per cent of ST agricultural households do not possess land, which makes them particularly vulnerable.¹ Further, landholding size has been decreasing due to fragmentation of land (see Box 4.1). The lack of human as well as land resources amongst the STs is thus a cause for concern, necessitating immediate attention.

Box 4.1

Land and Livelihood Issues among the Oraon in Jharkhand

The members of the Oraon tribe in Anadhradih village, which has 78% ST population (Census 2011), in Gumla district of Jharkhand reported that while agriculture

was the mainstay of most of their livelihood, cultivation was done on the reduced land holdings and that too only for one season. The landholding sizes among the Oraon community had reduced due to division of land assets. Owing to landlessness or ownership of small landholdings, most of the tribesmen in this part of the region have to undertake sharecropping, also called 'Saajha' or 'Adhbatai'. Sharecropping also forms a major source of fodder for their livestock.

While the only agricultural produce in most of the tribal villages in this region is the indigenous or local variety of paddy (Desi Dhaan), some tribal villages have adopted hybrid varieties of paddy which has a better yield. The members of Lohra tribe in Udaipura village, which has 63% ST population (Census 2011), in Latehar district of Jharkhand reported that while agriculture was still completely rainfed, due to the cultivation of hybrid paddy, food was available for them throughout the year whereas the local paddy wasn't able to suffice. The cultivation of millets and local crop varieties such as Madua (Finger millet or Ragi), Gondli, Kondo, Goda Dhan (Upland rice), Sarguja (oilseed variety) etc have diminished which gave way to cultivation of rice, wheat, maize, mustard, pulses such as Arhar, Urad and vegetables as the main crops.

4.1.3 Agriculture

STs have historically survived on subsistence agriculture, livestock, and natural resources. Estimates for Odisha and Jharkhand indicate that over 30 per cent of the lands in these States comprise commons such as forests, and half to over one-fifth of the annual incomes of ST households come from NTFPs according to various field studies.

Traditionally, the ST community has not owned private lands: there were no *pattas* issued by a local land authority, as land was a "mother to all". Over time, landholdings have been privatised; for instance, it is estimated that in Odisha, a very large proportion of the lands earlier jointly controlled by STs have now been privatised.² In Central India, much of the land cultivated by the ST communities is located on undulating slopes where the topsoil is thin, permitting only low yields. Agriculture is mainly

1 Source: Land Rights in Scheduled Areas | Centre for Policy Research (cprindia.org); Disha Foundation (2017).

2 Source: [https://www.tribaltribune.com/index.php/volume-6/mv6i3/tribal-land-and-forest-issues-in-odisha-an-overview#:~:text=In%20Scheduled%20Areas%20\(tribal%20majority,1.12%20standard%20acres%20per%20household](https://www.tribaltribune.com/index.php/volume-6/mv6i3/tribal-land-and-forest-issues-in-odisha-an-overview#:~:text=In%20Scheduled%20Areas%20(tribal%20majority,1.12%20standard%20acres%20per%20household)

rain-fed, one of the reasons for which is the layout of the land: irrigating slopes with unmarked plot boundaries is not easy. Limited technological support and infrastructural investment in agriculture by successive governments have prevented any change in the status quo. The appropriation of village lands by the State has also resulted in marginalisation of the ST communities.

The ST farmers mainly sow coarse crops though there are regional variations: coarse crops are common in Madhya Pradesh and Jharkhand, but in the east and northeast, farmers sow paddy. Wherever flat lands and sufficient water are available, these farmers also sow commercial crops such as bananas, sugarcane, and cotton (Reddy 2018; Hill 2014). In some areas, ST farmers also practise forms of “mixed crop” cultivation, which ensures both food security and insurance against crop failure (see Box 4.1). In some areas, “shifting (or swidden) cultivation” too is common, which is unsustainable with increase in population and limited land.³ In general, the agricultural practices of the STs are characterised by low technology and low inputs like fertilisers and other nutrients, which accounts for the low yields of the crops grown by them, at least in the central Indian belt.

Box 4.2

Livelihood Issues of STs in Rajasthan

The Bhils and Meenas are predominant groups in the districts of Banswara and Pratapgarh in south Rajasthan. Discussions in the villages bring lack of employment and livelihood opportunities as a common issue across villages.

Small landholdings and minimal water facilities for irrigation force them to carry-on with agriculture mostly for subsistence -they depend on it not to earn an income, but for self-consumption. There is also small-scale cultivation of commercial crops including cotton, soyabeans, corn and maize. Scarcity of water both for drinking and irrigation as well as erratic

supply of electricity add to the problem. Residents living in a hamlet situated on the hilltop complain about soil erosion which is adversely affecting their agricultural land and the possibility of any productive activity on it. The abysmal condition of MGNREGA work has further dimmed their possibilities of finding employment within the village. Employment and livelihood conditions for women are scarce.

Many across villages migrate to seek work and make-do for their livelihoods. Most of them reported having migrated to Gujarat to work in the construction sector as well as labour in the agriculture fields. Some also send their school going children to work in these sectors during their summer holidays. Those towards the in border of Madhya Pradesh migrate to this state as well. A few are said to be joining international migration for work to counties such as Kuwait.

In general, the agricultural practices of the STs are characterised by low technology and low inputs like fertilisers and other nutrients, which accounts for the low yields of the crops grown by them, at least in the central Indian belt.

Further, since low-intensity and low-yield agriculture does not keep the ST farmers engaged for much more than a season, many of them migrate out for work or take up non-farm jobs locally during the off-season months. Insights from Rajasthan primary field study reveal limited opportunities in agriculture and migration for employment (see Box. 4.2). Women are found to engage in a variety of activities such as production of handicrafts, ornamental artefacts or household items like baskets, rope, and woven mats, among other things.

In Odisha and Jharkhand, the areas inhabited by ST communities have also been found to be rich in mineral deposits. This has attracted considerable attention from the private sector in recent years, resulting in displacement of some ST farmers from their lands [see, for instance, Mishra (2007); ActionAid (2007); and Kabra (2004)].

In recent decades, there have been notable efforts to both transit the agricultural practices of the ST community and also to improve the intensity of their cultivation through watershed management, soil conservation, integrated “farming systems” planning, and other such measures, especially in the central

³ A rough estimate shows that 1.73 million hectares of land is still under shifting cultivation for a number of seasons, before it is left fallow for a long period. Source: Shifting cultivation may soon get legal stamp (Updated: Feb 19, 2020)
Read more at: https://economictimes.indiatimes.com/news/economy/agriculture/shifting-cultivation-may-soon-get-legal-stamp/articleshow/74200736.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

Indian belt. Some women have also been initiated into organic farming. The security of tenure has also helped by enabling an increase in investment on land through land levelling, bunding, and other forms of land improvement in the Khunti and Simdega Districts in Ranchi. It has also provided a greater incentive to grow high-value crops such as pulses and spices.

In addition to the government programmes non-governmental efforts such as micro-watershed development schemes, are also being initiated, especially in Maharashtra and Gujarat, but elsewhere as well. However, the spread of the government or NGO programmes has remained restricted to small pockets. Over time, there has been an improvement in food and agricultural production, and people are better nourished now, but the lands being cultivated are the same undulating slopes, and both water availability and diversification are limited.

Agricultural development among the STs could be further developed through some of the proposals listed below:

1. Recognising traditional rights to land: Some states have enacted legislations to this effect. However, no uniform policy has been chalked out as yet.
2. Legal protection against alienation of ST lands: legislation has been enacted in some states whereby lands belonging to the STs can be transferred only to other STs and that too only with the prior permission of governmental authorities. This law needs better enforcement.
3. Distribution of surplus lands to the landless STs and further development of land already in their possession.
4. Undertaking watershed development in the undulating and sub-montane areas: This is very helpful but its spread has so far been limited.

Box 4.3
**Traditional Forms of Sustainable
Agriculture**

In the Dharaav village of Hoshangabad (Madhya Pradesh), ST farmers practise the Utera system of

mixed farming, wherein several cereals, millets, and legumes are sown together. Farm animal-droppings fertilise the fields while the crop residues provide nutritious food for the farm animals. Mixed farming of grains and legumes ensures that soil fertility is maintained. If one crop fails, other crops sustain the farmers.

In Dindori, Madhya Pradesh ST farmers practise the Benvar agricultural system. During the early summer, small bushes, branches, and fallen leaves are set on fire, and the ash is mixed with seeds. After some three years, the site of farming changes, and returned to only after about nine years. About 16 crops are routinely grown in this farming system. Various crops support each other in this mixed system. Legume crops provide the nitrogen inputs for the cereals. This system does not require the land to be ploughed and engages women in farming. Even single-woman households can practise Benvar farming without the need for any support.

In the Rayagada and Sundargarh districts of Odisha, 121 different kinds of uncultivated foods are being harvested by the ST communities, and 98 different kinds of uncultivated foods are reportedly used to prepare cooked foods. Food procured from the forest may be playing a vital role in supplying micro-nutrients to the people. Several ST farmers have been routinely growing 55-60 crops on two-acre farms in mixed farming systems. In addition, these farmers have knowledge about diverse uncultivated foods from forests.

Unfortunately, however, there are reports of the spread of monoculture crops and plantations under the garb of 'development', which is adversely affecting these traditional systems.

4.2 Non-Timber Forest Produce (NTFP)

4.2.1 Forest Produce and ST Livelihoods

Estimates pertaining to the 1990s have shown that over 150-250 million persons (including STs) in the country were partly dependent on NTFPs for their livelihoods.⁴ According to the Population Census

⁴ See "Numbers of Forest 'Dependent' Peoples and Types of People Forest Relationships", available at <http://www.fao.org/3/w7732e/w7732e04.htm>; India : Unlocking Opportunities for Forest-Dependent People in India, Volume 2, Appendixes (worldbank.org); Millions of forest-dwelling indigenous people in India to be evicted | India | The Guardian

of 2011, some 170,000 villages, with an estimated population of 147 million, have forestlands in their immediate vicinity (Jain and Sharma 2014). These forests provided some 40 per cent of forest revenues and 55 per cent of forest-based employment. NTFPs play an important role in providing livelihoods to the STs living in the forest-fringe areas: they provide food, fuel, timber, fodder, medicine, and industrial inputs [Dey and De (2010); Pandey, Tripathi and Kumar (2016)].

In Bihar, Odisha, Madhya Pradesh, and Himachal Pradesh, more than 80 per cent of the forest dwellers collect/get 25-50 per cent of their food from forests during the lean months. NTFPs play a central role in the socio-economic, cultural, and political systems of tribal societies as well. The average income earned from NTFPs among the select surveyed ST populations was Rs. 4,791.16 household per annum, at different times during the first decade on this century [Islam et al. (2015); Bedia (2014); Gharai and Chakrabarti (2009); Shit and Pati (2012); Sarmah and Arunachalam (2011); Islam and Quli (2017); Dolui, Chatterjee and Chatterjee (2014)]. In recent decades, though, the acquisition of lands for material resources and coal has led to a marked decrease in NTFPs.⁵

ST women have been actively engaged in using forest produce, including fuel and fodder, and other food/non-food products for their family needs. Forests in the vicinity of villages have for long provided grazing lands for the livestock. ST women have also (traditionally) prepared country liquor from dried *mahua* flowers, which helps these women earn considerable incomes. Women additionally collect oilseeds of *chironji*, *mahua*, *kusum*, *sal* and *karanj*; they also collect *koinar* leaf, bamboo corn, *kachnar* flowers, *phutkal* leaf, *jirhul* flower, *rugra* and *khukhri* basidiocarp; and *chirayita*, *harra* and *bahera*, which are well-known medicinal items. The depletion of forest cover in India over the last several decades has resulted in several problems for women: now, they have to walk further and search harder to collect fodder and fuelwood, getting animal feed too is becoming arduous, and women's incomes have also fallen from this source (Maske et al. 2011; Langat et al. 2016).

5 See also, <http://www.cfrra.org.in/resource.aspx>

4.2.2 NTFP and Forests Rights Act (FRA)

The Government of India passed the Forests Rights Act in 2006, which empowers village and forest communities that help protect the forests.⁶ In turn, many Gram Sabhas have passed resolutions allowing the collection of only dried wood and prohibiting people from going into the forest with axes. Any requirement of timber for house construction has to be approved by the Gram Sabha. Forest dwellers have reported that even residents of other villages no longer try to encroach into the forests. This has helped increase the availability of NTFPs. Some of the villages have even carried out forest enrichment by planting a variety of fruit-bearing trees. The benefits, however, have been restricted because banks have not yet begun to recognise the FRA *pattas* for providing loans. Nevertheless, among communities, reports find that FRA *pattas* are being used by communities to secure credit locally (Samarthan 2012).

Finally, the government has re-classified bamboo as a grass and some villages, for example, the Mendha Lekha village in the Gadchiroli district of Maharashtra, and also some in Odisha, for example, Jamguda, have been able to secure the right to harvest bamboo under the Forest Rights Act (FRA).⁷

With CFR claims, some Gram Sabhas have been able to harvest bamboo, while adhering to the rule that only dried and dead bamboo poles would be harvested.⁸ Success stories have emerged from Gujarat and Maharashtra as well, though in Rajasthan, some villages in the Udaipur district have not been able to harvest and sell bamboo because of the failure to secure 'transit permits' from the Forest Department.⁹ There is thus a need to manage the sale of NTFPs more adroitly. In this context, it is proposed that transit permits should be issued by the Gram Sabhas, as has been done in Maharashtra (Vidarbha Livelihood Forum 2012, Nagpur). Further, since the Gram Sabhas and Gram Panchayats are constitutional bodies, they can receive government funds, say from the Compensatory Afforestation Fund Management and Planning Authority (CAMPA).

6 Source: Forest rights act 2006 (slideshare.net)

7 Source : <https://www.downtoearth.org.in/news/forests/mendha-lekha-s-struggle-for-bamboo-rights-33378>.

8 Source : <https://www.downtoearth.org.in/news/forests/mendha-lekha-s-struggle-for-bamboo-rights-33378>.

9 Vidarbha Livelihoods Forum, Nagpur, personal communication.

This discussion indicates that tenurial security can provide substantial income benefits and also environment conservation. It is also likely to encourage the STs to carry out sustainable methods of harvesting, while taking care to replant in order to secure a continued harvest.

4.2.3 Taking Agroforestry Forward

The Panchayat Extension of Scheduled Areas Act (PESA) and the Forest Rights Act (FRA) have together opened up new avenues for the development of agroforestry, as indicated by the following examples:

1. Bamboo, being declared as a grass, is a prime example of NTFP. This provides the STs easy access to this resource.
2. Cultivation of shade-grown coffee along with pepper is a good example, as this crop can be grown without clearing trees. STs have successfully done this in the Araku Valley of Andhra Pradesh, to the extent that Araku Coffee is now a high-priced brand in the global market.
3. A well-known example of agroforestry is also the widespread production of shellac. There are many more such products.

To summarise, NTFP is an important component in the lives of the STs, both financially and otherwise. Deforestation has hurt the incomes of the STs, and also impacted women's employment and incomes. The implementation of the FRA and CFR has benefited the STs. However, the uneven and arbitrary implementation of these schemes across the country has been an impediment.

through community efforts, as enabled by the FRA. Since women are, to a large extent, involved in managing agroforestry systems and in protecting community forests, promoting the community control of forests would enhance their status.

The Central government's new initiative *Van Dhan Yojana* is aimed at promoting forest economy and entrepreneurship among the forest gatherers. This scheme supports the efforts both in improving marketing of NTFPS as well as their processing and value addition by providing funds for training, equipment and other support. The latest figures reveal that about 3100 Van Dhan Vikas Kendra Clusters (VDVKCs) have been established which encompass about 53,000 Van Dhan SHGs, each one was provided a fund of 1 lakh rupees by TRIFED. This scheme appears promising in infusing dynamism in agroforestry and enterprise among the STs engaged in gathering and cultivation with continued support and innovations.

In order to ensure that better benefits actually accrue to the ST communities engaged in agroforestry, the prices of their products must increase and stay stable. In this direction TRIFED has been implementing the 'Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) & Development of Value Chain for MFP' which was formulated by the Ministry of tribal Affairs. Under this scheme Minimum Support Price (MSPs) is declared for Minor Forest Produce (MFPs) to ensure fair prices and procurement. 87 MFPs are covered under this mechanism with MSPs revised in 2020. However, these initiatives require greater publicity and need to be implemented more pro-actively on the ground, along with the establishment of more procurement centres and a better spread of information about MSPs.

Box 4.4 Agroforestry and the Van Dhan Yojana

There are options to develop agroforestry for increasing the incomes of forest dwellers, both STs and non-STs, as identified in the FRA. For example, this facilitates the product processing chain, including not just processing but also grading, packaging and marketing of the products, and moving up the value chain in various tree products. They could then be marketed as *organic products*. In this way, agroforestry can reduce the agrarian distress of forest dwellers

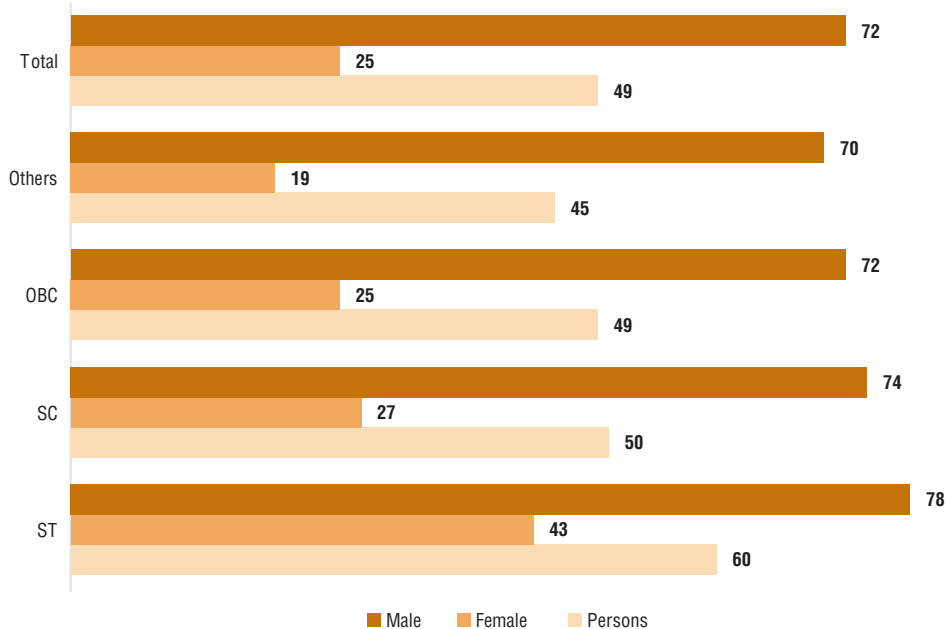
4.3 The Status of Livelihood Activities and Employment

This section examines the engagement of peoples from diverse communities in different activities to judge the extent of both the absolute as well as comparative engagement in economically meaningful activities.

4.3.1 Work Participation Rates

The Work Participation Rate (WPR) refers to the proportion of people engaged in economic activities

Figure 4.2: Work participation rate by social groups and gender (15+ years and usual principal status [UPS], 2021-22 [in percent])



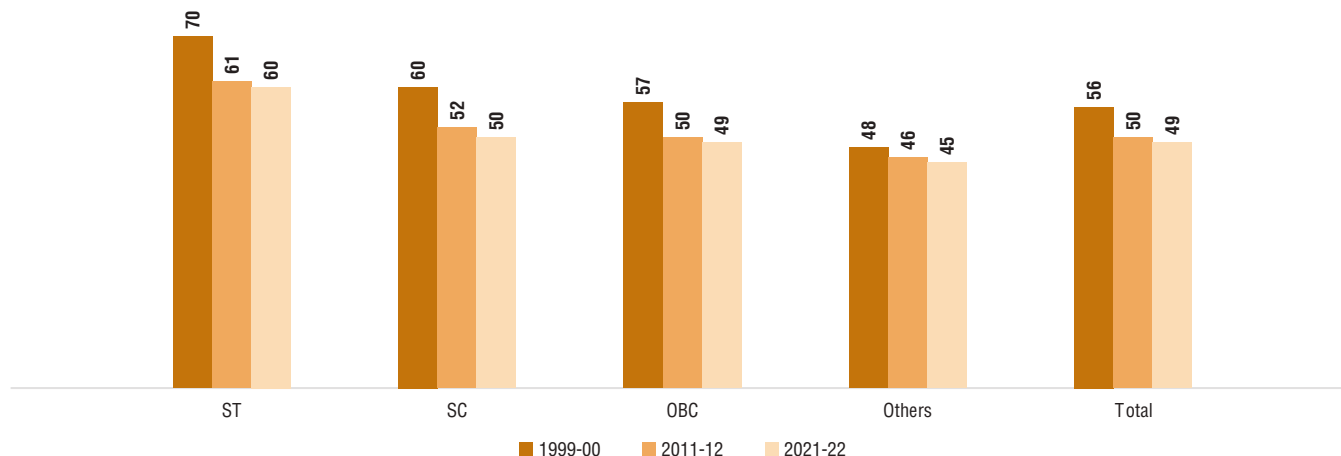
Source: PLFS 2021-22

to the total *eligible* population, that is, the population aged 15-60 or 64 years. Almost everywhere, the WPR of adult males is somewhat similar, but for females, it varies by customs/cultures, needs, location, and the advantages or otherwise of entering the workforce. The WPR of 77 per cent among ST males aged 15+ years is quite high, as compared to any other social group (Figure 4.2). A possible reason for this is that the ST populations mainly dwell in

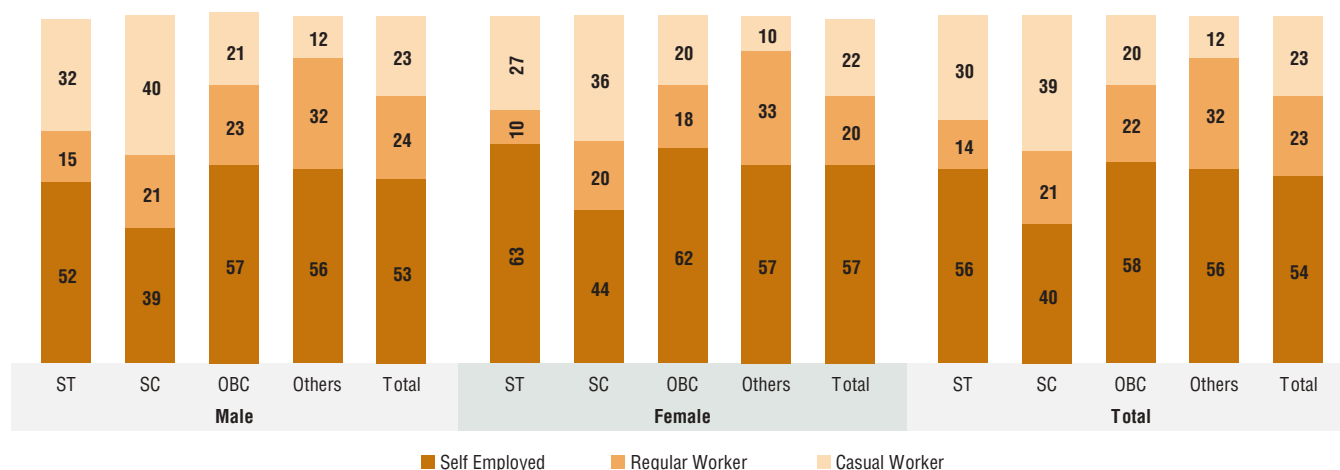
rural areas and often do not continue in education streams beyond the age 15 years. The STs also enter the workforce early because they have few choices owing to their modest standards of living/low earnings per worker (see also, Papola 2012).

Next, the significantly high WPR among ST women as compared to women in other groups is indicative of the farming practices that many ST communities

Figure 4.3: WPR by social groups (1999-2000, 2011-12 and 2021-22) (in per cent)



Source: EUS, 1999-2000, 2011-12 and PLFS, NSS, 2021-22.

Figure 4.4: Employment status (per cent) by social groups and gender (15+ years and UPS), 2021-22

Source: PLFS, 2021-22

engage in, wherein almost all household members work. While economic compulsion is a good reason for women to work, it also has a positive facet of promoting higher gender equality for ST women.

The WPR among ST persons declined from about 70 per cent in 1999-2000 to about 61 per cent in 2011-12, and almost remained at 60 per cent in 2021-22, which is in conjunction with the trends observed among other social groups (Figure 4.3). The decline of nine percentage points in WPR among STs during the roughly two-decade period of 1999-2021 is sharper than that observed for other social groups other than SC. The main reasons for this could be increased participation of women in education, and their reduced participation in the labour force.¹⁰

4.3.2 Status, Industry and Occupation in Employment

Status: The employment status of workers reflects upon the quality of their employment in terms of reputation and earnings. Regular salaried jobs often represent relatively better-quality work as compared to the self-employment and casual wage work due to the seamlessness of employment, better earnings, and, in some cases, social security benefits. This contrast can be seen in Box 4.5.

There were more ST workers engaged as casual labourers as compared to workers from the non-ST social groups other than those from the SC social groups as in 2021-22 (Figure 4.4). Further, the ST workers' engagement in regular jobs is the lowest across the different social groups. Finally, more than half of the ST workers are engaged in self-employment, mostly low-productivity agriculture.

Industry: An industry-specific distribution of workers shows that some 64 per cent of the ST workers (more females than males) were engaged in agriculture, as per the PLFS 2021-22, which is 21 percentage points higher than the aggregate figure for this sector (Figure 4.5). This figure also shows that while there was a proportional fall in the number of workers engaged in agriculture in all the social groups during 1999-2021 (Figure 4.5), the share of ST workers in agriculture declined by 15 percentage points from 79 per cent in 1999-2000 to 64 per cent in 2021-22; however, this fall among the other social groups is sharper, particularly among the SCs and OBCs. Next, the rise of ST workers in the non-farm sectors is mainly attributed to them getting absorbed in the construction sector where they undertake low-paying activities such as casual manual work.¹¹ On the other hand, the small rise of the number of ST workers in services sector employment could be attributed to the rise of their employment in public administration, health, and education, and to a small extent in in trad-

¹⁰ There is a lot of literature on this topic. For example, see Mehrotra and Parida (2017).

¹¹ See, [https://www.firstpost.com/business/economy/scheduled-tribes-losing-job-market-nso-data-suggests-2167933.html#:~:text=In%20rural%20areas%2C%20only%204.8,casual%20labour%20\(38.8%20percent\)](https://www.firstpost.com/business/economy/scheduled-tribes-losing-job-market-nso-data-suggests-2167933.html#:~:text=In%20rural%20areas%2C%20only%204.8,casual%20labour%20(38.8%20percent))

ing. One of the reasons for the latter is the stringent implementation of reservations in the public sector or government jobs in recent decades.

Occupation: Recent data from the PLFS show that the highest proportion of ST workers are in their

Box 4.5 Work Status and Poverty

The following table shows the status of workers belonging to the ST and non-ST groups *and the corresponding poverty rates*. The casual labour households/workers are among the lowest-earning workers in both rural and urban areas.

Area	Household status type	ST (per cent poor)	Others (except ST) (per cent poor)	Difference
Rural	Self-employed, agriculture	42.2	19.4	22.8
	Self-employed in the non-agricultural sector	28.3	18.1	10.2
	Regular salaried (wage earners)	20.8	10	10.8
	Casual labour, agriculture	59.7	36.7	23
	Casual labour in the non-agricultural sector	54.5	29.8	24.7
	All other worker categories	44.3	16.1	28.2
Urban	Self-employed in the non-agricultural sector	25.9	14.5	11.4
	Regular salaried (wage earnings)	9.1	6.8	2.3
	Casual labour in the non-agricultural sector	55.7	31.5	24.2
	All other worker categories	12.9	8	4.9

Note: 'Others' here are all non-STs, Year 2011-12

Source: Pal (2018), based on data from NSS 68th Round.

traditional occupations such as agricultural work and fisheries (about 45-46 per cent), followed by the low-paid elementary or manual jobs in services (about 30-31 per cent). In the low-paid elementary occupations as well, the share of ST workers is significantly higher as compared to that of workers from other social groups. The representation of STs in relatively high-skilled and high-paying jobs such as professionals, technicians, and similar professions, is the least as compared to other social groups, at less than five per cent. The association between workers belonging to specific social groups and their occupational status can still be historically traced to their traditional, caste/community-based occupations.

Finally, a concentration of ST female workers in low-paying occupations such as agriculture and elementary occupations suggests that the ST female workers compared to ST male also fare poorly in occupational distribution as compared to their male counterparts.

4.3.3 Education and the Labour Force

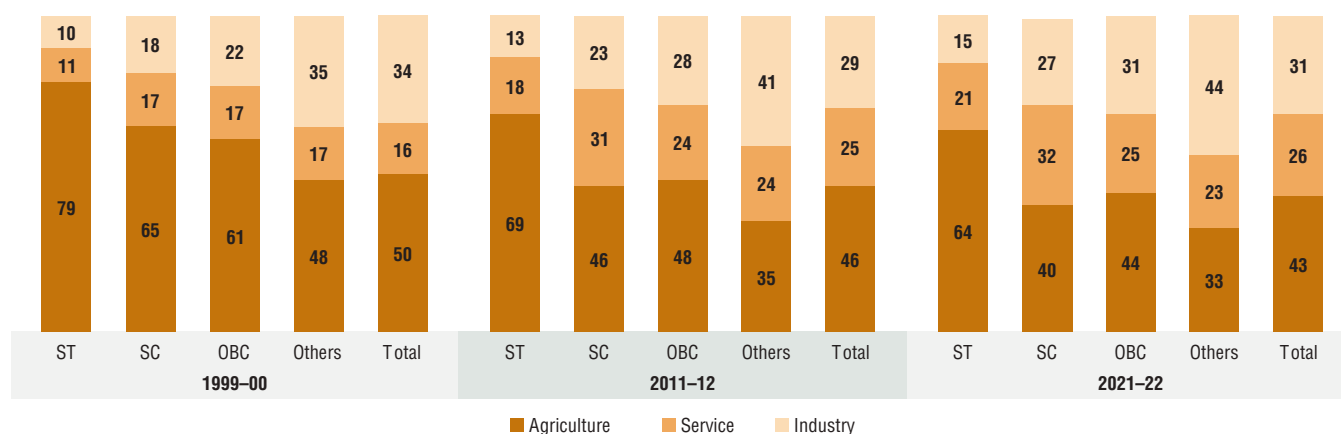
The extent of education and human capital/skills are important determinants of the quality of jobs and earnings that workers fetch in the labour market.

Table 4.2: Distribution of labour force (UPS) by education and social groups, 2020-21 (in per cent), 15+ years

Educational Level	ST	SC	OBC	Others	Total
Not literate	34.2	26.8	21.7	21.7	21.6
Literate below primary	8.8	5.6	5.1	5.1	5.6
Primary	14.5	15.4	12.9	12.9	13.1
Middle	21.3	22.9	22.6	22.6	21.9
Secondary	8.2	10.7	12.3	12.3	11.9
Higher secondary	7.1	9.3	11.7	11.7	11.3
Graduate and above	5.9	9.3	13.7	13.7	14.7
Total	100	100	100	100	100

Source: PLFS 2021-22.

The data on labour force by Usual Principal Status (UPS) across different levels of education shows that

Figure 4.5: Industry of employment by social groups (15+ years and UPS), 1999-00 to 2021-22 (per cent)


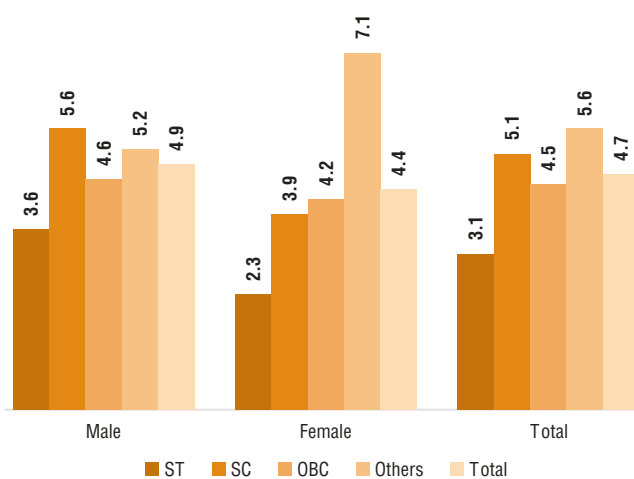
Source: NSS 55th Round, NSS 68th Round and PLFS 2021-22

the ST workers are educationally disadvantaged. The proportion of illiterates among the ST labour force is the highest among almost all the different social groups (Table 4.2). On the other hand, the same table shows that the relatively more qualified labour force i.e., the proportion of those with secondary, higher secondary, and graduate level of education among the STs are just about 8.2 per cent, 7.1 per cent, and 5.9 per cent, respectively, which is the lowest across the different social groups.

4.3.4 Unemployment

In labour-surplus poor countries, many people just cannot afford to be unemployed: they engage in some/any activities from where they can eke out subsistence. This is typically a situation of disguised unemployment or under-employment. However, there are no real data available on under-employment. Data on open unemployment thus have to be interpreted with caution.

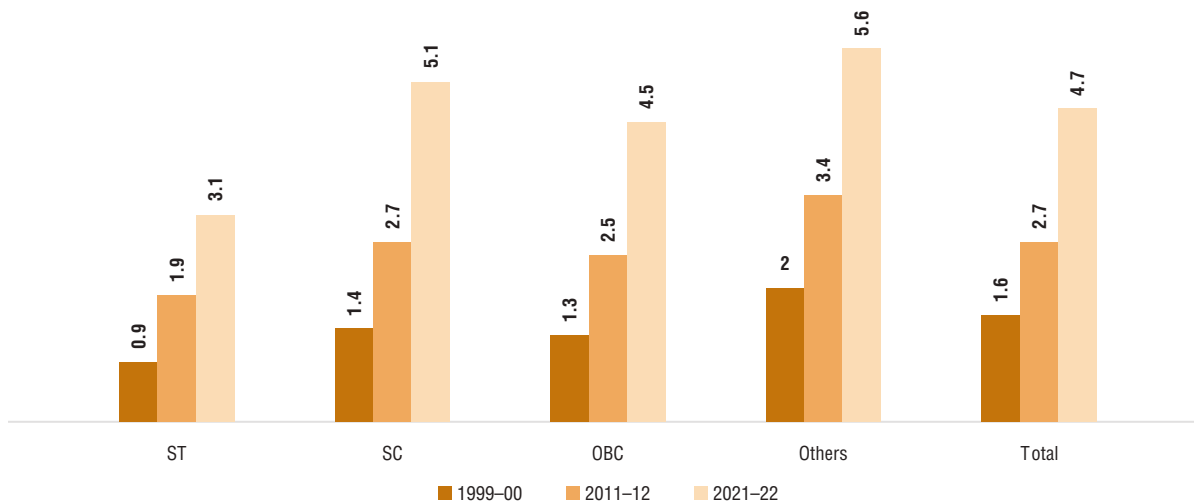
The reported open unemployment rate by the UPS among both male and female workers is notably lower among the ST workers as compared to workers in other social groups, as in 2021-22 (Figure 4.6). This figure is particularly low among ST women workers. One can thus infer that with both ST male and female workers being involved in several low-productivity jobs, there should be no complacency with regard to their well-being, based on the low unemployment rates among STs.

Figure 4.6: Unemployment rate by UPS (age 15+ years), 2021-22 (per cent)


Source: PLFS 2021-22.

Through the two decades 1999-2000 to 2019-2021, workers from all social groups, including the STs, experienced greater open unemployment than earlier (Figure 4.7). The unemployment rate among the STs rose substantially during the last decade, from about 0.9 per cent of the workforce in 1999-2000 to 3.1 per cent in 2021-22. In absolute terms, these numbers are large keeping in view the increase in both the population and the workforce. This is a disturbing situation, for both STs and non-STs.

Figure 4.7: Unemployment rate (15+ years and UPS), 1999-2000 to 2021-22



Source: PLFS 2021-22.

The unemployment rate among youth (those in the age group of 15-29 years) is considered to be a critical parameter of development. Youth unemployment was significantly higher than that among all adults (those aged 15+ years) across all social groups in 2021-22 (Table 4.3a). The youth unemployment rate among the STs may be low as compared to the aggregate, but in absolute terms, it is high at about 9.5 per cent. The youth unemployment rate among male workers is over 9.5 per cent, which is higher than the rates seen at any time in the past. Since a large proportion of ST workers are engaged in subsistence agriculture, which conceals unemployment, the actual labour redundancy may be still higher.

Next, the unemployment rate among the educated (those with education up to the secondary school level and above) youth is higher as compared to the overall unemployment in the range of 5-10 percentage points on an aggregate (Table 4.3b). The unemployment rate among both educated youth ST males and females is significantly higher as compared to the aggregate ST unemployment. This could be because the educated are reluctant to return to farming, and outside farms, there are few options. Next, the increasing incapacity of the non-farm sectors to absorb more workers owing to low-quality education adds to the problem. Finally, the limited geographical mobility of people (especially for female workers), is also responsible for this situation.

Table 4.3a: Youth unemployment rate by social category, all India (UPS, in per cent): 2021-22

Social groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	8.6	5.9	7.8	15.4	23.0	17.2	9.5	7.4	8.9
SC	13.6	12.2	13.3	19.6	27.2	20.9	15.0	15.5	15.1
OBC	13.1	13.6	13.2	15.7	24.8	17.6	13.8	17.3	14.5
Others	16.9	23.2	18.0	16.7	24.1	18.5	16.8	23.7	18.2
All	13.3	12.8	13.2	16.7	24.8	18.5	14.3	16.5	14.7

Source: PLFS 2021-22.

Table 4.3b: Educated (secondary education or more) youth unemployment rate by social category, all India (UPS, per cent), 2020-21

Social groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	16.1	17.1	16.4	27.5	37.9	30.4	18.0	20.4	18.7
SC	21.3	26.4	22.3	28.0	35.4	29.8	23.0	29.3	24.3
OBC	18.6	25.2	19.8	20.8	30.9	23.4	19.3	27.6	21.0
Others	22.7	32.9	24.6	20.0	27.4	22.0	21.4	29.6	23.3
All	19.9	25.9	21.0	21.7	30.3	23.9	20.5	27.8	22.1

Source: PLFS 2021-22.

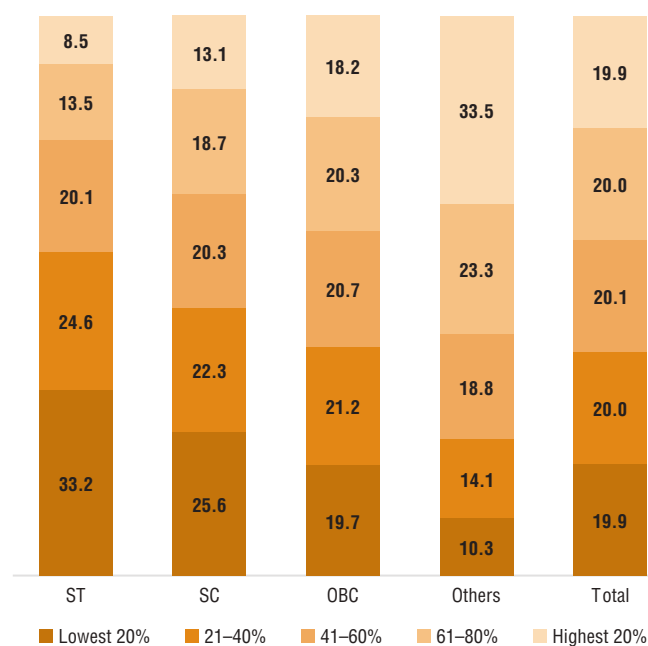
To summarise, the unemployment rate among the STs is generally low, as it gets disguised in subsistence agriculture, but it is relatively large among the educated and the youth.

4.4 Expenditure Pattern and Wages

4.4.1 Expenditure Distribution

Data from the Socio-economic Caste Census of 2011, though dated, suggest that more than one-third of the ST households earned their livelihoods from casual manual labour; less than one-fifth of ST farmers had irrigation facilities; and less than 5 per cent of the ST households had a monthly income exceeding Rs. 10,000. All these numbers pertaining to the STs match unfavourably with other groups, especially with the non-scheduled social groups.

The PLFS data for 2021-22 suggest that the proportion of ST populations is the highest in the lowest quintile and the least in the top quintile (Figure 4.8). The situation of the SCs is somewhat similar, but it is just the opposite among OBCs and other general groups. Next, NSS data for the first decade show that the consumption levels of all social groups increased between 1999-2000 and 2011-12. Among the ST households, it rose by a somewhat larger proportion than among the other groups. However, the consumption levels of the STs are notably lower than those achieved by the other groups. These results resonate with the earlier findings about the gap between the STs and the rest of the groups.

Figure 4.8: Percentage distribution of the population by MPCE, 2017-18

Source: PLFS 2021-22

4.4.2 Wages

A large proportion of the ST workers are engaged as agricultural and non-farm casual labourers; therefore, the wages, wage trends, and patterns provide useful information on their standards of living.

Data on the daily wages of casual workers presented in Table 4.4 show that the average daily wages of

Table 4.4: Average daily wage from unskilled work among casual workers by social groups

		Wage rate (in Rs)			Index		
		2004-05	2011-12	2021-22	2004-05	2011-12	2021-22
Male	ST	83	122	315	81	80	78
	SC	100	150	395	97	99	98
	OBC	107	158	420	104	104	104
	Others	103	152	404	100	100	100
Female	ST	60	97	231	58	64	90
	SC	65	106	264	63	70	102
	OBC	63	105	259	61	69	100
	Others	64	100	258	62	66	100

Note: The index is the value of the wage to a worker in that social group/sex in proportion to the highest wage paid (to either of the sex).

Source: NSS 55th Round; 68th Round and PFLS 2021-22.

both male and female ST workers were lower than those earned by workers belonging to other social groups during all the three years for which data are presented. This table suggests that ST women casual workers are placed at the bottom in the hierarchy of wages.

One of the significant reasons as to why the wages of ST workers lag behind those of others is that they dwell in poorer and less developed areas in states like Madhya Pradesh, Chhattisgarh, and Jharkhand, among others, where the overall wages are low. Therefore, there could be a regional bias during aggregation of data at the all-India level [Papola and Kannan (201); Karat and Rawal (2014)]. The wage gap also depends on the kind of jobs that STs get, which tend to be more of low-skilled manual jobs. Finally, there is a phenomenon called “pre-market discrimination and in-market discrimination” in wages, which is almost universally acknowledged (Deshpande and Sharma 2013). The higher the discrimination, the lower are the wages.

Thus, the ST populations are concentrated at the lower end in the expenditure hierarchy, and the wages they earn are lower than those earned by other social groups.

4.5 Migration – A Livelihoods Strategy

4.5.1 Trends and Patterns of Migration

Since the latter half of the twentieth century, members of the ST community have been regularly migrating out from their homes to earn a livelihood. Between 1950 and 1980, they moved from their rural/forest abodes to other rural areas of Bihar and West Bengal, mainly to work as agricultural labourers. Since the 1980s, they have begun migrating to larger cities like Delhi, Kolkata and Mumbai in the face of increasing demographic pressure, indebtedness owing to their integration in the cash economy, and the shrinking of land and forest frontiers following land acquisition for mining and other purposes (see Box. 4.6). ST women too have begun to travel out in search of livelihoods either on their own or with their families (Kumar and Prakash 2017; Reddy 2018).

Circular migration and semi-permanent rural-urban migration are emerging as dominant forms of migration amongst the STs. This especially holds true for the drought prone as well as forested areas of Madhya Pradesh, Rajasthan, and Jharkhand (see Box. 4.5). In the ST-dominated districts of southern Madhya Pradesh, it is estimated that in about 65 per cent of the households, about 15-20 per cent of the

Box 4.6 Mining and Livelihoods

Talwada block in Banswara, Rajasthan, where Bhils inhabit, is primarily identified as the 'mining block' as it has a number of industries carrying on marble mining in the area. The villagers complain of noise and water pollution due to mining activity which has adversely affected the ground water levels. Agriculture suffers greatly due to scarcity of ground water irrigation as also due to land that has been occupied by the mining companies to set up their factories. Court litigations are on-going in some cases. There are also instances where the villagers have brought some forest land under their possession and started using it to cultivate crops.

The settlement of factories by clearing up forests has led to a change in the dietary pattern of the villagers. Earlier, they domesticated cattle as there was abundant forest and land for them to be grazed. However, with the advent of industrialization of the villages, massive deforestation has forced them to give up on cattle and hence dairy products that they could earlier consume easily.

Many from the villages in the vicinity like in Kothara village are employed in mining work and there are instances of silicosis reported in the area. Employment under MGNREGA has been abysmal in the area.

members have migrated out for long periods, and over 60 per cent have done so for short periods. In Jharkhand, one study reported that in 12 villages, one-third of the households had at least one member migrating out, while child labour is also prevalent (IHD 2014). Large numbers of ST workers from southern Rajasthan too migrate to undertake manual work in the seed-cotton farms and textile markets of Gujarat. In many villages of Dungarpur district in Rajasthan, adjacent to Gujarat, up to three-quarters of the population is absent between November and June each year. Finally, migration has long been a livelihood strategy for the STs from all districts in the States adjacent to Maharashtra and Gujarat in search of work in the construction industry, which is obtained through labour contractors who provide cash advances to the labourers.¹²

Box 4.7 Livelihood Migration

The members of the Oraon community in Anadhradh village of Gumla district, Jharkhand, reported that agriculture was mostly seasonal in these tribal villages due to lack of irrigation facility. Post-harvest the tribesmen migrate to other states or brick kilns in nearby areas to seek employment for 4-6 months during the non-agricultural season and return during the agricultural season. Lack of employment opportunities render the tribal youth to out-migrate as casual labourers or work in factories or plantations. The role of agents or middlemen to facilitate such migration was limited. Social capital played a major role in such migration. They reported an improvement in their economic condition post-migration which facilitated better management of household expenditure and education for their children.

Field studies further suggest that more than 70 per cent of the migrants moving out for wage work did so move because they had no knowledge about schemes (meant for tribal development) other than the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Since the wages paid under MGNREGS are lower than those in construction work, they migrate out. It has also been observed that virtually none of the workers has been registered as a migrant worker with the Panchayat. Also, a majority of them do not know where the contractors would take them and the work they would eventually be doing. Some of them even travel long distances from the central Indian States to Punjab or as far south as Kerala.

Data on migration from the 64th Round of the NSS (2007-08) suggest that the proportion of migrant households among STs was higher as compared to that among workers hailing from the other social groups (Table 4.5). Next, a study conducted by CWDS in 2009-10 across 20 States showed that ST women constituted more than 26 per cent of all women migrant workers in rural destinations and 21 per cent in urban destinations. The most dominant

¹² Disha Foundation (2017) has carried out a 12-State study on patterns of migration, which is a useful reference in this context.

component of migration was found to be short-term and circulatory migration. There is also evidence of an increasing flow of young ST women to metro cities to work as live-in domestic workers (Mazumdar 2014).

Table 4.5: Percentage of migrant households by social group, 2007-08

Social category/ region	Rural	Urban	Rural + Urban
ST	1.9	6.2	2.3
SC	1.1	2.8	1.4
OBC	1.2	3.4	1.7
Others	1.5	3.3	2.2
All	1.3	3.3	1.9

Source: NSS 64th Round, 2007-2008.

4.5.2 Reasons for Migration

While the most dominant reason for female migration is marriage, for males, it is employment in both rural and urban areas. More than half the male migrants in urban areas and almost one-fourth in rural areas stated that they migrated out in search of employment (Table 4.6). The government's employment schemes such as MGNREGS are helpful to an extent, but as mentioned earlier, both the

number of days of work provided to each household and the wages are insufficient, resulting in out-migration [de Haan (2011); UNICEF (2020); Acharya, Hebbar, and Gopinath (2004)].

Increasing numbers of migrant ST workers are engaged as contract labourers, working in the construction industry and as domestic workers. This also includes ST women (GoI 2014). Population Census reports further suggest that ST migrants, again also including women, are now finding jobs in factories and agro-processing plants, or are working as porters, bus cleaners, rickshaw-pullers, street hawkers, and petty traders. In some places, they take up jobs that non-STs cannot or do not want to do, that is, jobs which are dirty, degrading, and dangerous—the DDD jobs, in the United Nation's terminology.¹³ These workers are often poorly paid and insecure, but they still get attracted to such jobs as the poverty they face back at home is worse.

Some of the ST-dominated areas are also affected by Maoist insurgency, which is another reason compelling them to migrate out.

4.5.3 Female Migration

A large number of semi-educated and uneducated ST women from the States of Jharkhand, Chhattisgarh, Odisha, and West Bengal migrate to metropolitan

Table 4.6: Reasons for migration for STs in rural and urban areas, 2007-08

Reasons for migration	Rural			Urban		
	Male	Female	Person	Male	Female	Person
Employment/Livelihood	24.0	0.8	3.1	54.3	6.3	26.5
Studies	25.1	1.6	4.0	17.7	7	11.5
Natural disaster	1.2	0.1	0.2	-	-	-
Social/Political problems	1.8	0.3	0.4	0.1	0.1	0.1
Displacement by development project	2.3	0.1	0.3	0.5	0.4	0.4
Marriage	9.9	91.2	83.0	1.1	50.4	29.6
Others	35.7	5.9	9.0	26.3	35.8	31.9
Total	100	100	100	100	100	100

Source: NSS 64th Round, 2007-2008.

¹³ See https://niti.gov.in/planningcommission.gov.in/docs/data/ngo/csw/csw_lobor.pdf

Box 4.8**Seasonal Livelihoods and Migration in Sheopur District, Madhya Pradesh**

There is a seasonal variation in the livelihood pattern, including migration. Villagers mainly engage in collecting chid/ dhokra gond, giloy, amla from the forest from November to March. Villagers were also involved in satawar collection & processing from January - March and from September-October. During these months, villagers engaged in woodcutting activities as well. Tendu leaves were collected by them during April-May and from June to August and October to November, their main occupation was around agricultural activities such as paddy transplantation, weeding of rice, bajra, til, maize, toor among others. However, landless households migrated to other places in search of work in factories & the construction sector. In the month of May-June, people preferred to stay in their villages due to marriage season. Households not involved in any marriage-related activities, cleaned farms and repaired boundaries to protect crops from stray animals for the approaching season. In some villages, people went to forest areas to collect wood for fuel. Due to lack of livelihood opportunities at the village level, some villagers (generally male) migrated to work as a casual wage labourer. In the month of September-October, villagers faced lack of employment opportunities in their villages and migrated to other states to work in factories or in construction sites or at stone crusher. People who stayed at village, remained involved in satawar collection & processing. Other than these regular activities, villagers with livestock, took them to the forest area for grazing.

In all the surveyed villages, people migrated to other blocks, villages or states in search of jobs resulting in two types of migration: Local migration in agriculture & non-agricultural activities and Inter-state migration to work in agriculture & non- agricultural activities. Villagers generally migrated to cities such as Jaipur, Delhi, Himmatnagar, Rajkot, Bangalore, and Chennai for interstate migration. For local migration, workers from Vijapur block preferred to go to Bhind & Moraina to work during mustard & wheat harvesting. Further, they also went to nearby places to work in the construction field. Villagers faced exploitation at their workplace. For example, in factories, they had to work for 12 hours to get a meagre monthly salary of Rs. 7000 to 8000. Sometimes contractor did not even pay the actual salary or kept it on hold for a month. In the cotton field, they received only Rs. 300 per day and got a maximum of 25 days of work only.

Although, villagers faced exploitation they still migrated to other parts due to a lack of employment opportunities in their own villages. Sectors like agriculture and allied activities, small-scale industries are not generating adequate employment opportunities to curb such migration.

centres such as Delhi, Mumbai, and Kolkata in search of employment as casual labour in the unorganised sector and/or as household domestic workers. A survey conducted in Chhattisgarh, Jharkhand, Madhya Pradesh, and Odisha found that about 46 per cent of the ST migrant women came to Delhi, followed by 9 per cent to Mumbai. A majority of these ST women belonged to the age group of 19-25 years (44 per cent); in all, some 70 per cent were 30 years old or younger at the time of the survey. Thus, Delhi is the epicentre of migration for ST women (Society for Regional Research and Analysis, 2010).

An estimate from the surveys conducted through 2009-14 reported that the average earning per month of the ST women domestic workers was about Rs. 2,250-2,500. About 84 per cent of these women sent money back home, ranging from Rs 2,000-11,000/year. In Jharkhand and Odisha, ST families reported that their income source due to migration of (women) workers and the consequent savings in cities/towns was about 18-25 per cent of their total income, amounting to about Rs. 7,500 to Rs. 8,200 per annum. Some 50 per cent also had bank accounts. Since there are no written or formal contracts between domestic workers and employers, there is no stipulation for payment of minimum wages and there is always a possibility of termination of their services at any time. Having little social security to fall back on during illness or an emergency, they have to fend for themselves (Shree 2012; Augustine and Singh 2016; Pal 2018; Baviskar 2008; Bremen 2003; Kujtu and Jha 2008).

One study finds that female migrant ST women and girls face serious problems in urban centres with regard to housing (45 per cent), employment (38 per cent), and adjustment with the changing environment of city life (36 per cent) [Shree (2012)].

The above surveys report that among the female workers who experienced harassment and exploitation, about 38 per cent faced them from

middlemen, followed by the contractors (29 per cent), placement agencies (15 per cent), landlords (12 per cent), and their known acquaintances and the police (about 5 per cent combined). The predominant form of exploitation (80 per cent) was payment of an amount lower than what was promised. Sexual exploitation was reported by less than one per cent of those surveyed. Yet, some 93 per cent in the family felt that migrant women contribute to families, mainly in the form of incomes, but also in awareness, prestige, etc. The predominant finding emerging from these statistics pertains to the number of intermediaries involved in the placement process: a reduction in this number could mitigate the problem of commissions and exploitation of ST female migrants.

In several tribal societies, women have been equal (or larger) partners with ST men in their contribution to the household economy. However, the nature of work that the ST women undertake entails long hours, yielding low returns. Studies suggest that in some rural areas, the hard work they perform in the fields leads to high morbidity and mortality, and poor child health, among other negative outcomes (Mishra 2012; Action against Hunger 2016a; Action Against Hunger 2016b).

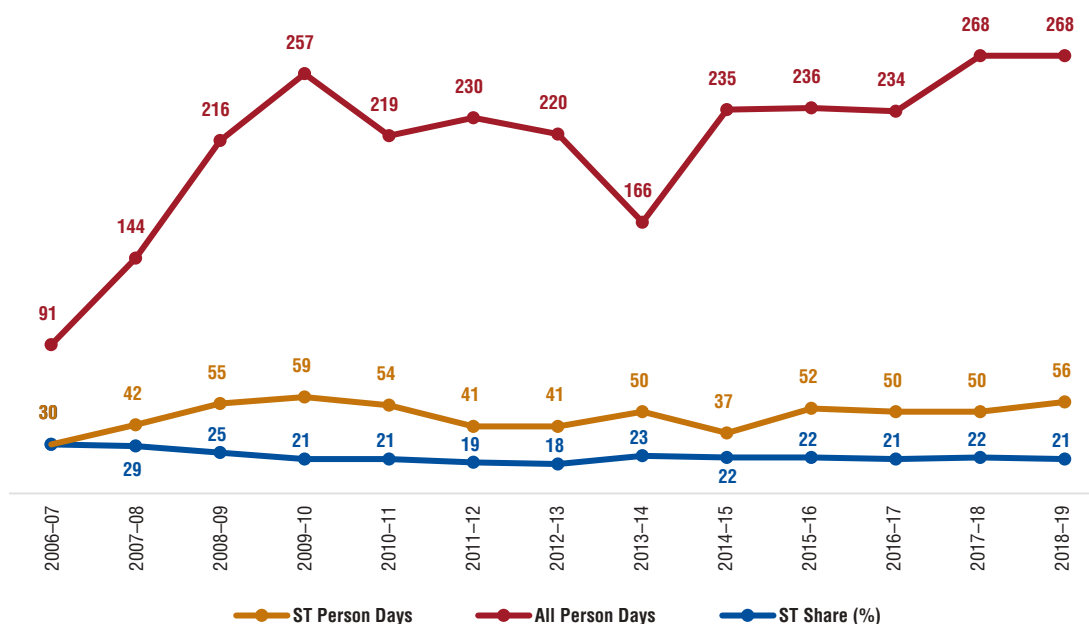
It can thus be concluded that both male and female STs have begun to migrate out for livelihoods to other areas, including urban centres, in the recent decades. While some ST males migrate out for education as well, most females migrate out only for marriage and/or work. ST women also send remittances back home. The ST female migrants, at times, face problems with regard to placement agents, housing, and in adjustments at the destination.

4.6 Strategies and Programmes

Both State and Central governments have attempted to formulate different programmes and schemes to alleviate the problems being faced by the STs. While they have achieved some success in this, a wide gap still needs to be bridged. Following is a list of the select programmes being implemented to augment livelihoods for the ST community:¹⁴

1. Special Central Assistance to Tribal Sub-Scheme (SCA to TSS): This is a 100 per cent grant from the GoI to support the Integrated Tribal Development Project (ITDP), Integrated Tribal Development Agency (ITDA), Modified Area Development Approach (MADA), clusters, and PVTGs, and is aimed at the economic development of the dispersed ST populations. The SCA to TSS is being implemented in 23 States, including those in the North-east.
2. Development of PVTGs: This is a 100 per cent Centrally sponsored scheme meant for certain groups which are identified as Particularly Vulnerable Tribal Groups (PVTGs). A total of 75 such groups in 18 States and one Union Territory (UT) have been categorised as PVTGs. This scheme is being implemented through special agencies and the 'micro-projects' by the States/UTs in accordance with the Conservation-cum-Development policy.
3. Institutional support for development and marketing of tribal products/produce: This scheme was initiated in 1992-93 and has continued since then. Now revised, it focuses on the socio-economic security of the ST population through market intervention, skill upgradation, and infrastructural support.
4. Mechanism for marketing of Minor Forest Produce (MFP) through the Minimum Support Price (MSP) and development of a value chain for MFP: This scheme was introduced in 2013-14 for providing social safety mainly to the ST MFP gatherers. The scheme seeks to establish a system to ensure fair monetary returns to the MFP gatherers. The scheme envisages fixing and declaration of the MSP for select MFPs. Procurement and marketing operations at a prefixed MSP are undertaken by designated state agencies.
5. Support to National Scheduled Tribes Finance and Development Corporation (NSTFDC)/State Scheduled Tribes Finance and Development Corporations (STFDCs): NSTFDC, a fully owned public sector enterprise of the Central Government, is provided with a 100 per cent equity share capital contribution by the Ministry of Tribal Affairs for overseeing welfare schemes for the STs.

¹⁴ These are seen from Unstarred Question No 4617, dated 22 July 2019, Lok Sabha.

Figure 4.9: Performance of the MGNREGS (2006-07 to 2018-19)

Source: GoI MGNREGA website.

The main objectives of the NSTFDC are to:

1. Identify economic activities of importance for the STs, to generate self-employment and raise their income level.
2. Upgrade their skills and processes through both institutional and on-the-job training.
3. Increase the effectiveness of the existing State/ UT Scheduled Tribes Finance and Development Corporations (SCAs) and other developmental agencies engaged in the economic development of the STs; and
4. Assist SCAs in project formulation, implementation of NSTFDC-assisted schemes, and imparting training to their personnel.
5. MGNREGS: Although the MGNREGS is open to all, it has become a critical source of employment for the STs. The most important feature of MGNREGS is the provision of work on demand. The number of person-days of employment generated among the STs in the total employment generated under this programme since 2013-14, has been more or less stable at around 20-22 per cent annually.

Considering the fact that STs comprise about 8 per cent of the country's population, their share of over 20-22 per cent in MGNREGS underscores their poverty and unemployment levels.

To summarise, both the Centre and the states have implemented a number of development programmes for improving the livelihoods of the ST peoples. In terms of outcomes, since the situation of the target groups has not seen much change, a serious evaluation of these is necessary. One programme that stands out in terms of visibility is the MGNREGS. This, though, is one that provides short-term succour, and the need of the hour is an approach that would make a permanent impact.

Box 4.9

NABARD's Sustainable Livelihood Support for Tribal Families

NABARD has been closely associated with tribal development and sustainable livelihoods through orchard based farming systems. As an integral component of NABARD's Natural Resource Management (NRM) policy of providing sustainable

livelihoods, NABARD laid special emphasis on providing support for holistic development of tribal communities with orchard establishment as the core element. The implementation of comprehensive Adivasi Development Programmes (ADPs) in Gujarat since 1995 and in Maharashtra since 2000 had provided several insights for NABARD in framing strategies for holistic development of tribal regions. The Adivasi Development Programmes were externally supported by German government owned development bank, Kreditanstalt für Wiederaufbau (KfW) who have chosen NABARD as Indian partner. The programme implementation at ground level has been taken up by BAIF, one of the renowned nongovernmental organisation (NGO) in natural resource management sector. The central focus of ADPs is “wadi model of tribal development has been acclaimed worldwide as a sustainable and replicable model for poverty alleviation. The model was presented as a successful replicable model for poverty alleviation in the developing countries at the UNDP Forum of Ministers for Poverty and Environment in New York, USA in 1999 as well as at the Global Dialogue in Hanover, Germany. The model was also exhibited in the “Basic Needs Pavilion” at the Expo-2000, GmbH, Hanover.” (small orchard) together with suitable soil conservation, water resource development and other measures for improving the quality of tribal life such as community health & sanitation, women development, institutional development, etc.

Source: <https://www.nabard.org/demo/auth/writereaddata/File/Sustainable%20Livelihood%20Support%20for%20Tribal%20Families.pdf>

4.7 Conclusion and Suggestions

The following salient features emerge from the above analysis of employment and livelihood for STs in India:

- Land has traditionally been the fundamental basis of livelihoods among STs; yet, nearly 10 per cent of the ST farmers are landless. Consequently, many of these people are now resorting to working as casual manual labourers in both rural and urban areas at low wages.
- A large number of both ST male and female workers join the workforce earlier than other social groups, primarily because they often do not/cannot continue in education for various reasons. Data suggest that STs are placed at the bottom rung in the labour markets, measured in terms of status, industry, and occupation.
- With increased demographic pressure, on the one hand, and the rising demand for land for mining on the other, the expansive methods of cultivation have reached their limits. Also, deforestation has led to a decline in access to NTFP. Women particularly face problems in sustaining livelihoods, as they have traditionally been responsible for NTFP collection, livestock management, and other such work, which requires access to forests.
- Both male and female STs have begun to migrate out for livelihoods to other areas, including urban areas, in recent decades. While some ST males also migrate out for education, most females migrate out only for marriage and/or work. ST female migrants at times face problems with regard to placement agents and housing, and in making adjustments at the destination.
- On an aggregate, there is a low level of open unemployment among the STs, possibly because most of them are engaged (as under-employed) in low-productivity agriculture. The land yield rates in areas where the ST farmers work are a fraction of the corresponding rates in areas that have benefited from the Green Revolution. Among the educated ones, however, especially youth, the unemployment rate is higher. One of the reasons for this is that the educated STs do not wish to work in subsistence agriculture. Members of the ST community have also faced the maximum displacement from their lands among all social groups, to give way for development projects, such as roads, dams, and mines, which is one of the reasons for their poverty.
- Reservations in government jobs and the MGNREGS have provided ST groups some succour and sources of livelihood, but they are still placed at the bottom of the labour market.
- A number of Central and state government programmes have been/are being implemented from time to time, though their impact and outcomes are significantly less than anticipated due to poor implementation.

The following recommendations can help address most of the above issues:

- Land and forest rights need efficient and comprehensive restoration and protection, as well as close cooperation between the state and Central governments and local bodies.
- There is need for programmes that can but definitively wean ST farmers away from their traditional methods of livelihood to modern ones, thereby enabling them to raise their productivity and incomes under the aegis of the Tribal Sub-plans.
- The marketing and prices of NTFP require closer attention.
- Human capital enhancement is the need of the hour, with priority being accorded to occupational diversification. The need of the hour is to improve the quality of education for the STs, as that would enable them to gain a footing in the labour market.
- While short-term programmes such as the MGNREGS do provide some succour to the poor among the STs, this does not preclude the need for a lasting solution to the problem of unemployment and under-employment.
- All kinds of discriminations in the labour markets need to be done away with.
- One size does not fit all: each area requires a unique approach. This is particularly true of the North-east region.

C H A P T E R

5

Education

Education

The Right of Children to Free and Compulsory Education (RTE) Act, 2009, guarantees the right to free and quality elementary education for all children aged 6 to 14 years in India. The children belonging to the ST community, long living on the fringes of the mainstream Indian population in terms of accessing education, thus now have a right to demand quality education at the basic level.

After the relative neglect of the ST community's education by the colonial government in pre-Independence India, the newly formed Indian Government was committed to redress this gap. Article 46 of the Indian Constitution promises, 'The State shall promote with special care the educational and economic interests of the weaker sections of the people, and in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation.' In this chapter we look at the status of education among the STs, and the extent to which they have been able to harness educational opportunities, the barriers thereof, and ways to move toward more inclusive education for the STs.

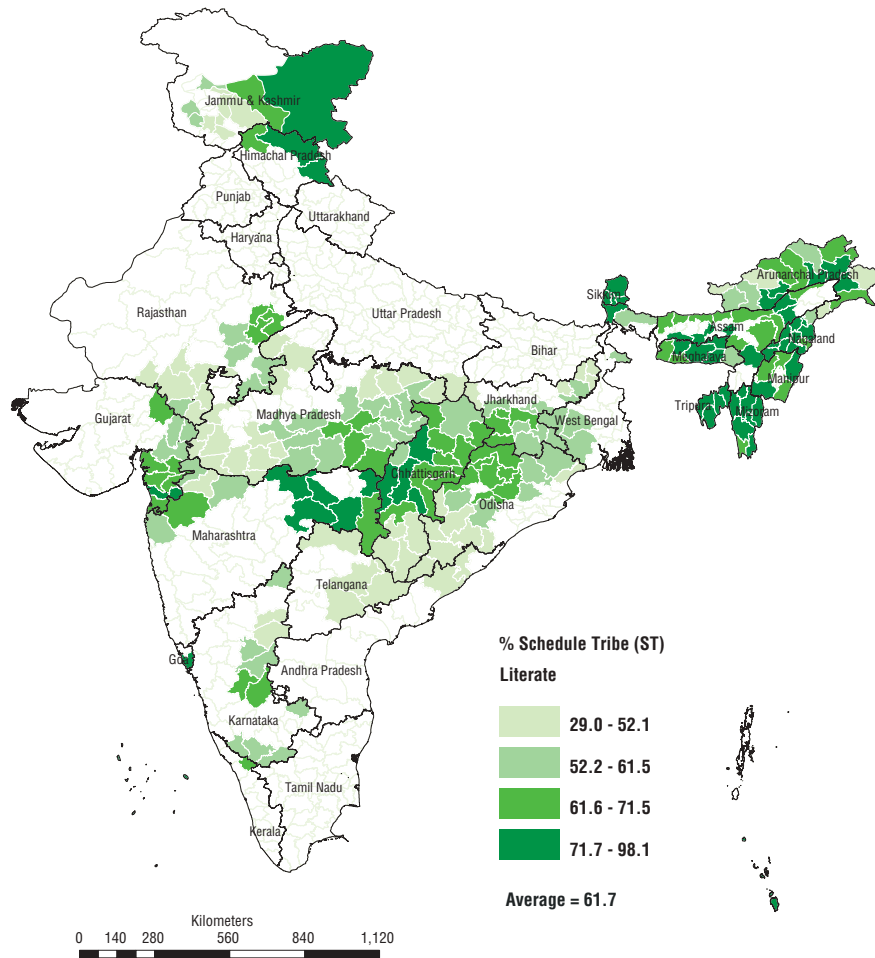
The chapter is organized as follows. It starts by examining the present status of literacy and education for the ST community in India, where we mostly examine all-India figures. Occasionally, state-wise information is presented for various regions of the country. We next look at different stages of education and the status of the ST community vis-à-vis other major social groups. The barriers to accessing education for the ST community are also discussed. Next, there is discussion of the policy approach of the government towards ST education,

including a brief discussion of the important education-related schemes for STs. We end the chapter with concluding remarks and suggestions for a way forward.

5.1 Overall Literacy Status

The overall literacy status of the ST community, according to data from the 2011 Census, is presented in Figure 5.1. It has been observed that among the states with a 10 per cent or more ST population, tribes in certain North-eastern states and Kerala have high literacy rates, while those in the central and western states have low literacy rates. The literacy rate among the ST population increased from 8.5 per cent in 1961 to around 59 per cent in 2011, whereas the corresponding increase in the national average was from 28.3 per cent in 1961 to 73 per cent in 2011 (Gol 2013). Thus, the literacy rate of the ST community is still below the all-India average though the gap has declined from around 20 per cent to 14 per cent. The states of Tamil Nadu, Odisha, Madhya Pradesh, West Bengal, and Kerala showed a gap of more than 18 percentage points in the literacy rate of STs as compared to that of the total population during 2011. The North-eastern states such as Manipur, Mizoram, Sikkim, Nagaland, and Tripura have literacy rates above the all-India average. Some states with a concentration of ST populations are also affected by Left Wing Extremism (LWE), which impacts their literacy and educational progress. For instance, in Chhattisgarh, the literacy rate in the non-LWE districts is 74.0 per cent, which is higher than the corresponding rate of 68.7 per cent in the LWE-affected districts (Pankaj et al. 2018).

Figure 5.1: Literacy among the ST community in districts in India with 10 per cent or more ST population



Source: Based on data from the Census of India, 2011.

The wide gap between the literacy rates of STs and all other categories for all ages narrows down considerably when we consider youth literacy, and even more so, in the case of adolescent literacy (Table 5.1). Women are still comparatively far behind the national averages vis-à-vis men in literacy rates.

5.2 Status of educational attainment for the ST community

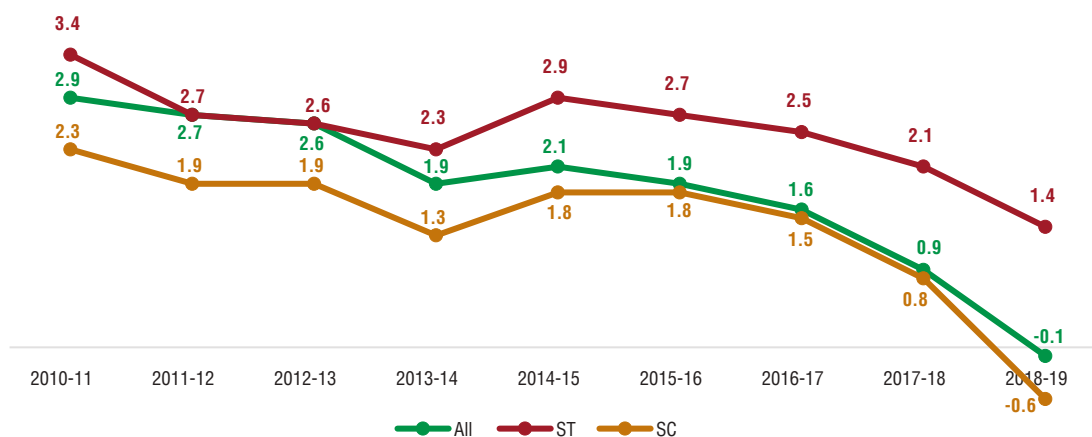
Among all the social groups, the STs fare the worst in terms of educational attainment, according to the National Sample Survey Office (NSSO) survey of 2017–18 (Figure 5.2). At the all-India level, the ST

Table 5.1: Selected literacy rates and gap in literacy for STs and all categories, 2011

	All categories			Scheduled Tribes			Gap: All categories less ST		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
All ages	73.0	80.9	64.6	59.0	68.5	49.4	14.0	12.4	15.2
Adolescent (10–19 years)	90.0	91.7	88.2	83.6	87.1	79.9	6.4	4.6	8.3
Youth (15–24 years)	86.1	90.0	81.8	75.6	82.9	67.1	10.5	7.1	14.7

Source: Office of the Registrar General of India cited in Annual Report, 2017–18, Ministry of Tribal Affairs.

Figure 5.2: Share (per cent) of persons (15 years and above) by the completed level of education by social groups, all India (2017–18)



Source: NSS 75th Round, 2017–18.

community accounts for the highest share of 'not literates', at 36 per cent, and the lowest share of population that has completed secondary level or any higher level of education. The gap in education levels between the STs and the 'Others' is particularly significant. The share of 'not literates' among the STs is much higher for women, at 45.3 per cent, as compared to that for men, at 26.9 per cent (see Table 5.3).

The bulk of the ST population in the country still lags behind the non-STs in acquisition of basic school education (Table 5.2). If we add the share of 'educated till primary level or below' to the share of people with no literacy, this category would account for 58.1 per cent of the ST population at the national level vis-à-vis a corresponding figure of 43.7 per cent for non-STs.

The share of the ST population that has been educated till the primary level and below (including non-literates) is relatively low for many of the States in the North-eastern region, such as Manipur, Mizoram, Sikkim, and Nagaland (Table 5.2). Tripura, with a 62 per cent share, is an exception in this respect. The corresponding share of the population, at 60 per cent or above, is very high for all the states in the eastern and central region, except for Chhattisgarh, which too has a corresponding high share of 57.9 per cent. The States of Rajasthan and Andhra Pradesh also have shares of above 60 per cent for those educated till the primary level, and

non-literates, while the shares for other states such as Gujarat, Maharashtra, Karnataka, Tamil Nadu, and Telangana are also high, at above 50 per cent.

Except for some states in the North-eastern region, where the share of the ST population is very high, in general, the share of the population with education till the primary level, including non-literates, is lower for the non-ST population vis-à-vis the ST population for all the States.

This inequality between the STs and non-STs also shows up when we compare population shares with secondary and above levels of education among the STs and non-STs: their averages at the national level are 24.8 per cent and 40.2 per cent, respectively, exhibiting a difference of 15 percentage points. Among the major states, the non-ST shares for the population with secondary and above education are more than 15 percentage points higher than the corresponding share for the ST population in Maharashtra, Madhya Pradesh, West Bengal, Odisha, and Tripura.

5.3 Gender Differential in Educational Achievement

The ST population is still far behind the non-ST population in terms of educational achievement. Within the ST population, women are at a disadvantage as compared to men, as their share

Table 5.2: Educational attainment among Scheduled Tribes (15+) and non-STs for the selected states and all-India (2017–18) (per cent)

States/UTs/ All India	ST			Non-ST		
	Primary and below (including not literate)	Middle	Secondary and above	Primary and below (including not literate)	Middle	Secondary and above
Eastern and central region						
Bihar	62.3	12.4	25.3	55.5	14.4	30.1
Chhattisgarh	57.9	19.3	22.9	45.1	18.6	36.3
Jharkhand	64.6	17.0	18.4	48.4	18.9	32.7
Madhya Pradesh	68.4	18.1	13.4	46.6	20.6	32.8
Odisha	68.8	13.3	18.0	46.4	17.9	35.7
West Bengal	69.5	18.3	12.4	49.2	19.8	31.1
Western region						
Dadra & Nagar Haveli	60.4	26.4	13.2	17.5	17.3	65.3
Daman & Diu	21.0	37.1	41.8	24.2	16.4	59.4
Goa	18.7	14.7	66.5	19.5	19.8	60.7
Gujarat	57.0	16.6	26.4	40.8	17.8	41.4
Maharashtra	55.4	17.9	26.6	32.9	16.4	50.7
Rajasthan	66.3	14.2	19.6	51.9	16.1	32.1
Northern region						
Himachal Pradesh	34.6	16.1	49.3	31.2	12.4	56.4
Ladakh	46.1	19.6	34.4	31.5	35.3	33.2
Uttar Pradesh	50.0	15.9	34.2	47.1	16.7	36.2
Uttarakhand	32.8	24.8	42.4	28.8	17.1	54.1
Southern Region						
Andaman & Nicobar Islands	51.1	25.4	23.4	31.7	15.9	52.4
Andhra Pradesh	61.5	9.3	29.2	56.6	9.0	34.4
Karnataka	55.3	13.6	31.1	42.3	12.6	45.2
Kerala	39.0	16.3	44.7	23.3	19.5	57.2
Lakshadweep	31.9	18.5	49.6	15.5	15.4	69.1
Tamil Nadu	52.6	15.5	32.0	38.9	14.2	47.1
Telangana	51.4	13.1	35.5	43.1	8.7	48.2
North-eastern region						
Arunachal Pradesh	48.0	16.4	35.6	50.7	19.1	30.2
Assam	42.8	20.6	36.6	42.2	20.3	37.6
Manipur	22.1	21.4	56.4	21.7	19.6	58.8
Meghalaya	45.6	25.7	28.7	42.2	21.8	36.0
Mizoram	24.6	35.6	39.9	41.9	31.7	26.4
Nagaland	33.3	17.9	48.8	46.6	16.1	37.3
Sikkim	32.2	15.8	52.0	34.0	19.8	46.2
Tripura	62.0	27.8	10.3	45.3	27.8	27.0
Total	58.1	17.1	24.8	43.7	16.1	40.2

Source: NSS 75th Round, 2017–18.

Table 5.3: Gender gap in educational attainment among STs and non-STs, 2017-18

Indicators	Male		Female		Gender Gap (M-F)	
	ST	Non-ST	ST	Non-ST	ST	Non-ST
Not literate	26.9	17.2	45.3	33.3	-18.4	-16.1
Literate up to primary	23.4	18.3	20.9	18.9	2.5	-0.6
Middle	20.2	18.0	13.9	14.1	6.3	3.9
Secondary and higher secondary	23.0	33.1	16.6	24.8	6.4	8.3
Graduate and above	6.6	13.4	3.3	8.9	3.3	4.5
All	100.0	100.0	100.0	100.0		

Source: NSS 75th Round, 2017-18.

among the 'non-literates', at 45.3 per cent, is far higher than the corresponding share for men, at 26.9 per cent (Table 5.3). However, the gender gap, as seen in terms of the male educational attainment versus the female educational attainment is lower for STs at higher levels of education vis-à-vis for non-STs, with the caveat that the overall achievement levels for STs are lower than those for the non-STs.

5.3.1 Rural-Urban Distribution

The ST population resides overwhelmingly in rural areas. According to the 2011 Census, around 90 per cent of the ST community lives in rural areas (MoHFW and MoTA 2018). There are 90 districts or 809 blocks in the country, with more than 50 per cent ST population, accounting for 45 per cent of the total ST population in the country, and these districts have till now been the focus of tribal development plans. We note, however, that 55 per cent of the ST population live outside the 809 ST-majority blocks.

Moreover, members of the ST community are increasingly moving out of their traditional habitats from the scheduled to the non-scheduled areas due to education and livelihood imperatives (MoHFW 2018; MoTA 2018). Now, more people in the ST community are seeking livelihood in the construction sector and domestic work in urban areas (MoHFW 2018; and MoTA 2018).

The distribution of rural and urban ST populations differs considerably across education levels, and there have been changes in educational attainment over the last decade even in rural areas (Table 5.4). The level of educational attainment is far higher among the urban STs as compared to those living in rural areas. But even in the rural areas, where a majority of the ST population lives, the overall share of 'not literates' declined by 12.2 per cent between 2007-08 and 2017-18. It is also observed that education is permeating among the ST population in rural areas. This is also reflected in the share of those with secondary and higher secondary

Table 5.4: Share (per cent) among the ST population at different levels of educational attainment: rural and urban (2007-08 and 2017-18)

Sector	Not literate	Literate up to primary	Middle level	Secondary and higher secondary	Graduate and above	Total
2007-08						
Rural	51.0	27.6	12.8	7.7	1.1	100.0
Urban	26.0	19.2	18.3	27.0	9.5	100.0
Total	48.6	26.8	13.3	9.5	1.9	100.0
2017-18						
Rural	38.8	23.2	17.3	17.7	3.0	100.0
Urban	16.5	14.5	15.1	35.0	18.9	100.0
Total	36.0	22.1	17.1	19.9	5.0	100.0

Source: NSS 2007-08 and 2017-18 Rounds.

Table 5.5: Pre-school education and literacy (2013-14)

Sector	Total	SC	ST	OBC	Other
1) Per cent of children aged 3-6 years currently attending pre-school education at					
– Anganwadi Centre	37.9	41.6	50.9	34.8	33.9
– Privately run institutions (playschools, nursery, etc.)	30.7	25.0	17.3	32.1	39.1
– Not attending	26.9	29.1	27.3	28.3	22.9
2) Pre-school Education (PSE)					
Percentage of children aged 36-71 months attended PSE in AWC for 16 or more days in the month prior to survey (among children attending PSE at AWC)	58.1	57.2	58.0	58.4	58.9

Source: Rapid Survey on Children (2014), Ministry of Women and Child Development.

levels of education, which increased by 10 per cent between the two NSS rounds in the rural areas. The corresponding urban share increased from 27 to 35 per cent.

5.4 School and Pre-School Education

5.4.1 Pre-school Education¹

There is scant data on the status of access to pre-school education by social groups for children in the age group of 3-5 (but less than 6) years. A nationwide household-cum-facility based rapid survey was conducted in 2013-14 in 28 states and Delhi. This survey provides the level of selected indicators, which mainly focus on the well-being of children below 6 years and their mothers. Early childhood care and the enabling environment are also covered in the survey, known as the Rapid Survey on Children (RSOC).

Table 5.5 shows that the 3 to 6-year-old ST children primarily access pre-school education via *Anganwadi* centres, and 27.3 per cent of the children among them had not acquired any kind of pre-school education at the time of the survey. The share of ST children attending privately run institutions is much lower at 17.3 per cent as compared to the average of 30.7 per cent. This share for ST children is the least among all social groups, which is possibly due to the fact that enrolling in privately run pre-school education providers such as play schools/nurseries usually entails considerable expenditure for

households, and ST households are among the most deprived financially. The attendance for PSEs at the *Anganwadi* centres, however, is at par with that of the other social groups.

5.4.2 Physical Access to Schools

With a high share of the ST population living in forested and hilly terrains, access to schools has been a major issue for the community. Access norms have been set by the RTE Act, which stipulates that State governments need to ensure the availability of primary schools within a distance of one kilometre of any habitation, and of upper primary schools within a distance of 3 kilometres of any habitation. The Rastriya Madhyamik Shiksha Abhiyan (RMSA) has also specified distance norms for secondary schools, specifying that they should be located within a distance of 5 kilometres of any habitation (CBPS 2017).

The access to schooling for STs improved between 1993-94 and 2007-08, with the share of households having access to a primary school within a distance of one km increasing from 77 per cent to 88 per cent (GoI 2014). The access to upper primary and secondary schools was, however, far worse. The situation has improved since 2007-08, for primary and upper primary levels, according to information based on the NSSO 75th Round (2017-18) (Table 5.6). We observe that the access of ST households to schools is equivalent to that of other social groups at the primary level, which is an improvement on the situation prevalent in 2007-08. At the upper primary level, there is still a considerable gap

¹ This section draws on the Rapid Survey on Children, Ministry of Women and Child Development (2014).

Table 5.6: Distribution of ST and non-ST households (per cent) by distance to schools, 2007-08 and 2017-18

Social groups	2007-08			2017-18		
	<2 km	Between 2km and <5 km	5 km and beyond	<2 km	Between 2km to <5 km	5 km and beyond
Primary school						
ST	92.4	7.3	0.3	97.6	2.0	0.4
Non-ST	93.2	6.6	0.2	98.0	1.9	0.1
Upper primary school						
ST	69.9	21.4	8.7	79.6	13.8	6.6
Non-ST	85.2	10.8	4.0	89.6	8.8	1.6
Secondary school						
ST	28.7	44.3	27.1	53.6	26.1	20.4
Non-ST	30.4	58.5	11.1	72.4	19.3	8.4

Source: NSS 75th Round 2017-18.

between the access of ST households and non-ST households, but the gap between the two social groups has been narrowing over the years.

At the secondary level of schooling, the ST households face a greater disadvantage vis-à-vis the non-ST households. At this level, while a little over half of the ST households have access to a school within a distance of 2 km, for the non-ST households, this share is nearly three-fourths of the total, at 72.4 per cent. In one-fifth of the ST households, students have to travel more than 5 km to reach school, a very high share as compared to that for the non-ST social categories (see Box 5.1).

Box 5.1 **Accessing Schools in North Bengal**

Roshan Oraon hails from the Chalouni Tea Garden, Dooars, North Bengal, and is currently pursuing an MA degree in the Tata Institute of Social Sciences, Mumbai. According to Roshan, in the place where he grew up, there are government as well as private schools. However, it is very difficult to continue schooling beyond Class 8 there. To study in Class 9 and 10, children have to travel 10 to 15 km. For Classes 11 and 12, they have to travel for a further 30 kilometres.

Source: <https://www.firstpost.com/india/adivasis-and-the-indian-state-overcoming-financial-constraints-facing-social-hostility-what-education-means-for-four-tribal-students-7364091.html>

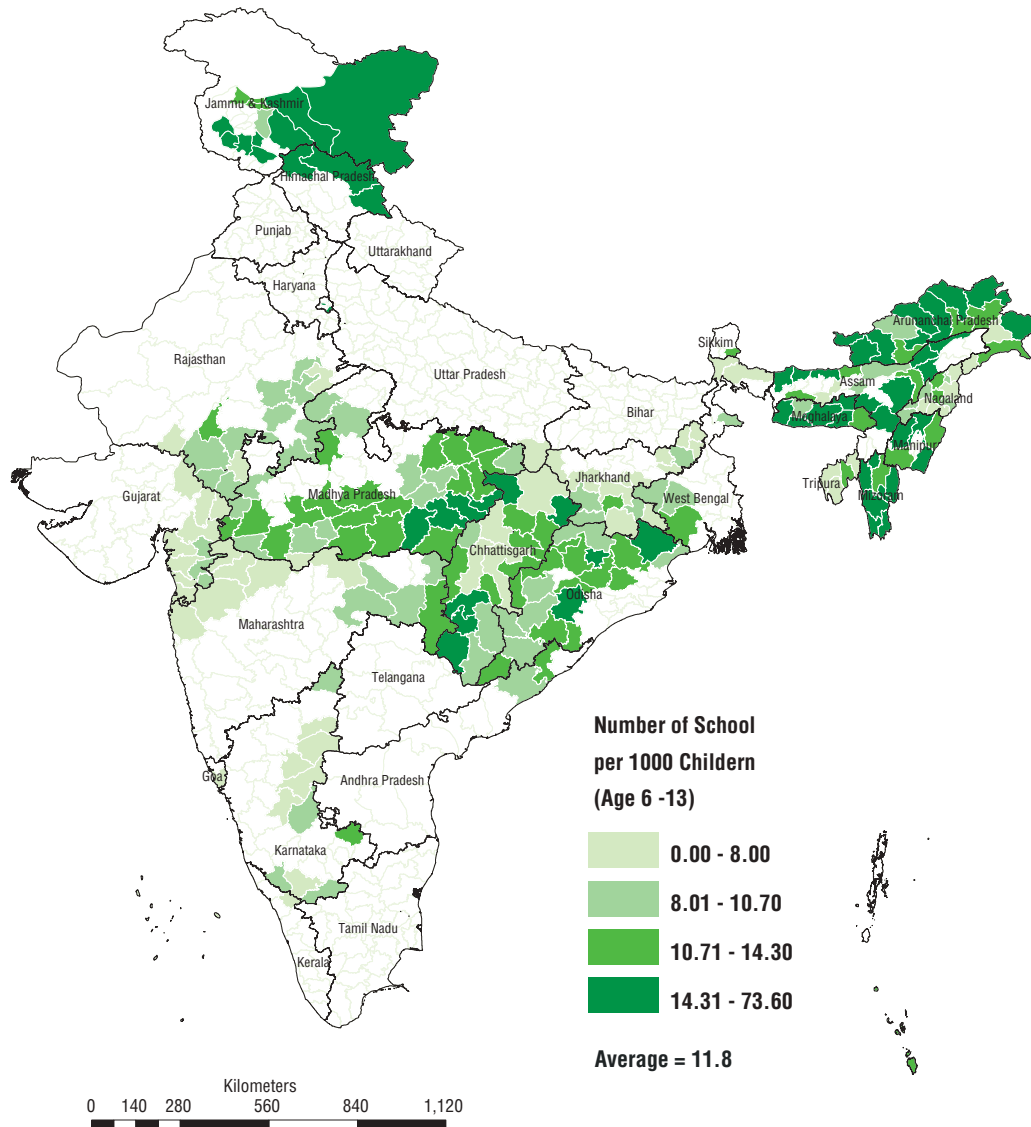
5.4.3 The density of primary and upper primary schools in ST districts

A district-level analysis of the density of elementary schools, which includes primary and upper primary schools, has been undertaken based on the Elementary District Report Card (U-DISE), 2016-17. This analysis has been done for districts which have an ST population of more than 10 per cent.

On an average, there are about 12 schools per 1,000 children aged 6-13 years in the ST districts. The ST districts of the hilly states of northern India, that is, Himachal Pradesh and Jammu and Kashmir (including Ladakh), have a higher density of elementary schools per 1,000 children of age 6-13 years. Within the northern region, the ST districts in Himachal Pradesh have the highest number of schools (42 schools) per 1,000 children of age 6-13 years, followed by Jammu and Kashmir (17 schools).

In the eastern and central region, the ST districts in Odisha, Madhya Pradesh and Chhattisgarh have about 12 schools each per 1,000 children of age 6-13 years. In the southern region, the ST districts in the Andaman & Nicobar Islands have the highest number of schools (12 schools) per 1,000 children of age 6-13 years, followed by Andhra Pradesh (11 schools). Within the western region, the ST districts in Rajasthan have the highest number of schools (9 schools) per 1,000 children of age 6-13 years, followed by Maharashtra (8 schools). The ST districts in Gujarat have only 6 schools per 1000 children of age 6-13 years.

Figure 5.3: Number of schools per 1,000 children aged 6–13 in tribal districts, 2016–17



Source: Elementary District Report Card (U-DISE), 2016–17.

Among the North-eastern states, the density of elementary schools in the ST districts is much higher as compared to that in the other regions. Sikkim and Manipur are the best-performing states, with about 18 schools per 1,000 children of age 6–13 years in their ST districts, followed by the ST districts of Meghalaya and Mizoram, with a density of 17 schools each per 1,000 children of age 6–13 years.

reflected in the educational deficits for the entire population, even for the school-going population, the STs lag behind all the other social groups in terms of enrolment. The GER for the STs is comparable with the other social groups at the elementary level, that is, classes I–VIII and even at the secondary level (Table 5.7). But at the highest stage of school education, the access for STs is the least.² The access to education for STs in 2020-21 at the higher

5.5 Enrolment and Attendance

The improved school access among the Scheduled Tribes is also captured by the Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER). However, as

² The All-India Survey on Higher Education (AISHE) from MHRD reports the GER for the secondary level (Classes IX-X) (14-15 years) as 74.5 per cent for STs in 2015-16 and the GER for Senior Secondary level (Classes XI-XII) as 43.1 per cent (Source: MoTA 2017–18).

secondary level is 10.9 percentage points below that of even another disadvantaged social group, the Scheduled Castes (SC). The gap in GER between the STs and SCs at this stage of education has widened over the last three years.

Table 5.7: GER for selected social groups and all categories at different stages of school education

Year	ST	SC	All categories
Classes I–VIII			
2018–19	105.0*	105.3*	96.1
2019–20	102.1*	107.1*	97.8
2020–21	102.7	108.6*	99.1
Classes IX–X			
2018–19	78.2	82.7	76.9
2019–20	76.7	83.0	77.9
2020–21	78.6	84.8	79.8
Classes XI–XII			
2018–19	43.9	51.3	50.1
2019–20	42.9	52.9	51.4
2020–21	45.2	56.1	53.8

Note: * The higher than 100 percent figures reflect enrolment that is not appropriate for the official age group for that education stage.

Source: UDISE Booklets, 2018-19, 2019-20 and 2020-21 accessed at <https://dashboard.udiseplus.gov.in/#/reportDashboard/state>.

5.5.1 Gender Parity in Enrolment

Gender parity in school enrolment has improved over the years for the ST community, as indicated by UDISE data (Table 5.8), as compared to the 1980s, 1990s, and even till around 2010–11.³ The earlier years had been marked by the gender gap in accessing school education with a female disadvantage, while at present the gender gap has been reversed at the higher stages of education.

Table 5.8: GER for Scheduled Tribe boys and girls at different stages of school education

Year	Boys	Girls	Total
Classes I–VIII			
2018–19	105.8*	104.1*	105.0*
2019–20	102.6*	101.5*	102.1*
2020–21	102.9*	102.5*	102.7*
Classes IX–X			
2018–19	77.7	78.7	78.2
2019–20	76.2	77.2	76.7
2020–21	77.9	79.3	78.6
Classes XI–XII			
2018–19	43.5	44.4	43.9
2019–20	41.9	43.9	42.9
2020–21	43.8	46.5	45.2

Source: UDISE Booklets, 2018-19, 2019-20 and 2020-21 accessed at <https://dashboard.udiseplus.gov.in/#/reportDashboard/state>

5.5.2 Dropout

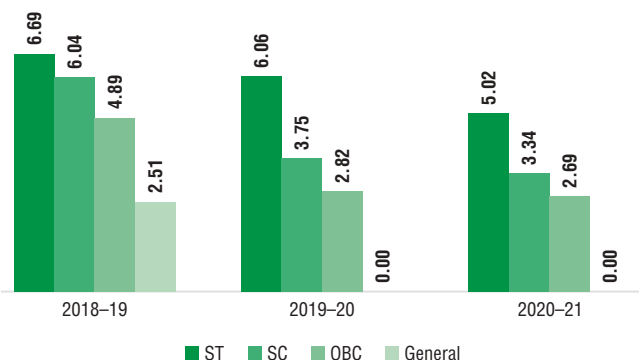
Along with improved school access, the dropout rate for children among all social groups have been declining, including that for ST children. At the primary level (classes I–V), in 2020-21, the dropout rates for ST children was low at 2.5 percent, although for the other social groups it was even lower at less than one percent, or zero.

At the middle level (classes VI–VIII), too, the dropout rates have been declining over time for all social groups (Fig 5.4). For ST youth, however, the dropout rate remained the highest among all social groups.

The declining trend in drop-out rate is observed also at the secondary level of school education, especially after 2016-17 (Figure 5.5). The decline has been maximum for the ST children at 6.3 percentage points between 2014-15 and 2020-21. However, it is a matter of concern that despite the general converging trend for dropout rates, in 2020-21, the dropout rate for STs (20.91%) is nearly double that for children belonging to general caste (10.29%).

3 The data for the earlier years are available in GoI (2014), pp. 170.

Figure 5.4: All-India dropout rates (per cent) for classes VI–VIII



Source: UDISE Booklets, 2018-19, 2019-20 and 2020-21 accessed at <https://dashboard.udiseplus.gov.in/#/reportDashboard/state>

5.5.3 Never Enrolled

‘Out-of-school’ children comprise dropouts, those who never enrolled, and those enrolled but not attending. Apart from the school dropouts, the share of the ‘never enrolled’ is also the highest for STs, among all the social groups (Table 5.9), according to NSSO data.

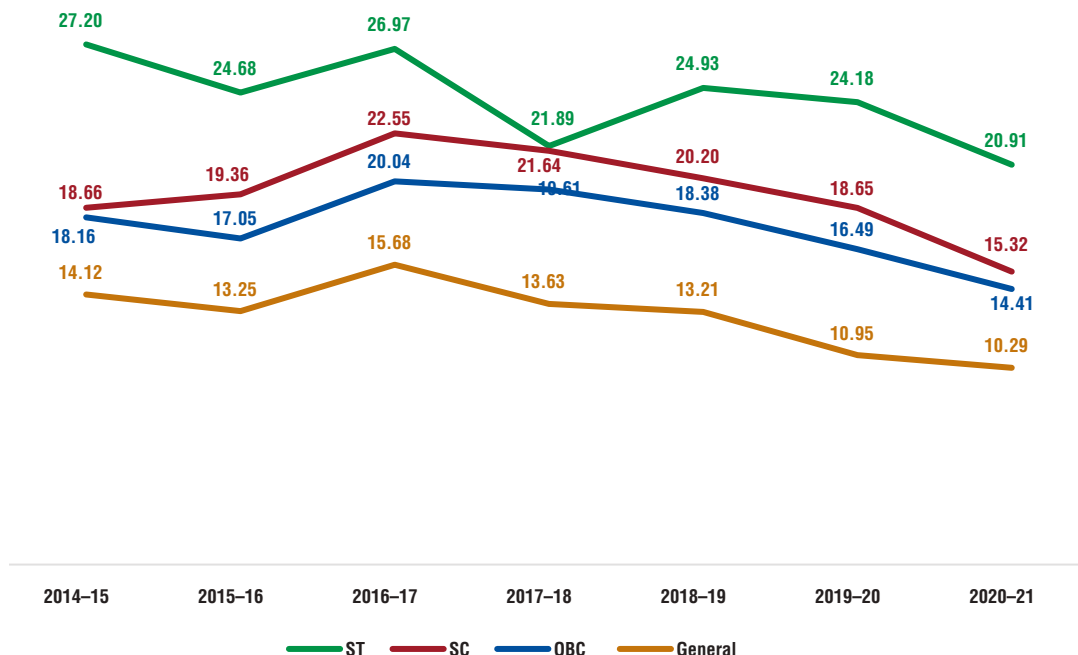
For children in the 6–14-year age group, the dominant reason among ST children for not enrolling in school is lack of interest in education (36.5 per cent), followed by financial constraints (17 per cent), and engagement in domestic activities (14.7 per cent). For the older age group of 15–17 years, lack of interest continues to be the most important reason for not enrolling (30.4 per cent), but engagement in domestic activities is the next important reason, accounting for a share of 18.6 per cent, followed by financial constraints (16.9 per cent) and engagement in economic activities (10.6 per cent). The share of those engaged in economic activities is much higher, at 10.6 per cent, for this age group as compared to the younger age group, at 4.8 per cent.

School access is still a problem area, as 4.6 per cent of the 6–14-year-old ST children cited the school being far off as a reason for not enrolling, as compared to the negligible share of children among other social groups citing this reason.

5.5.4 Attendance

School enrolment does not ensure regular school attendance, and irregular attendance is likely to

Figure 5.5: All-India dropout rates (per cent) for classes IX–X



Source: UDISE Flash Statistics (different time periods)

Table 5.9: Share (per cent) of never enrolled persons and their percentage distribution by reason for never enrolling in each social group: all India (2017-18)

Age group	Social groups	Share (per cent) of never enrolled	Not interested in education	Financial constraints	Engaged in domestic activities	Engaged in economic activities	School is far off	No tradition in the community	Others (including marriage)
6–14 years	ST	4.9	34.2	14.1	1.7	1.4	1.4	6.0	41.2
	SC	3.6	28.2	4.7	0.6	0.3	0.3	1.5	64.5
	OBC	3.8	28.3	4.2	0.5	0.3	0.3	2.8	63.5
	Others	2.0	19.2	2.2	1.4	0.0	0.0	2.8	74.5
	Total	3.5	28.0	5.5	0.8	0.4	0.4	3.0	61.8
15–17 years	ST	7.3	30.4	16.9	18.6	10.6	3.5	1.3	18.8
	SC	6.4	37.5	24.6	11.5	8.9	2.2	0.5	14.9
	OBC	6.3	30.0	20.6	20.1	12.8	2.2	0.8	13.4
	Others	3.3	31.0	22.5	15.3	9.8	3.3	2.4	15.8
	Total	5.7	32.0	21.4	17.0	11.0	2.6	1.1	14.9

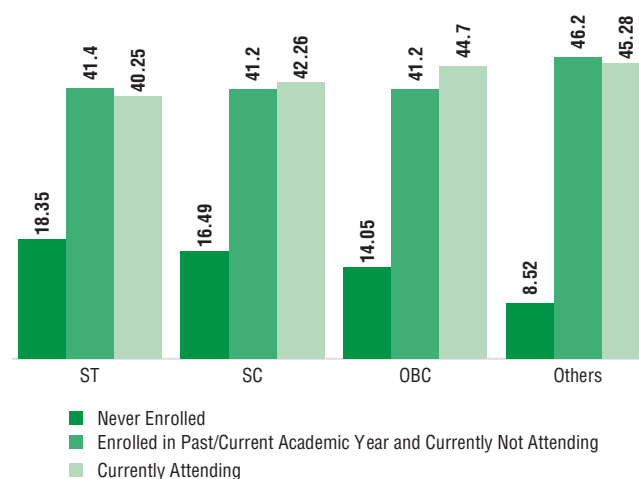
Note: For all social groups, marriage has a negligible share among the reasons for not enrolling in school.

Source: NSS 75th Round, 2017-18..

affect learning and eventually increase the risk of pupils dropping out of school. The NSSO 75th Round (2017–18) data show the percentage distribution of persons aged 3–35 years by enrolment (Figure 5.6). Among all the social groups, the STs account for the highest share of ‘never enrolled’ children as well as the lowest share of the children who are currently attending an educational institution.

The age-specific attendance ratio (ASAR)⁴ figures are shown for all social groups across different age groups in Table 5.10, indicating that the ST community has the lowest ASAR among all the social groups till the age group of 18 to 23 years, covering the bulk of the years for attending educational institutions. In particular, for the school-going age groups starting from 6–10 years till 14–17 years, the gap in ASAR between the STs and other social groups increases from the lower to the higher age groups, corresponding broadly with the lower to higher education levels.

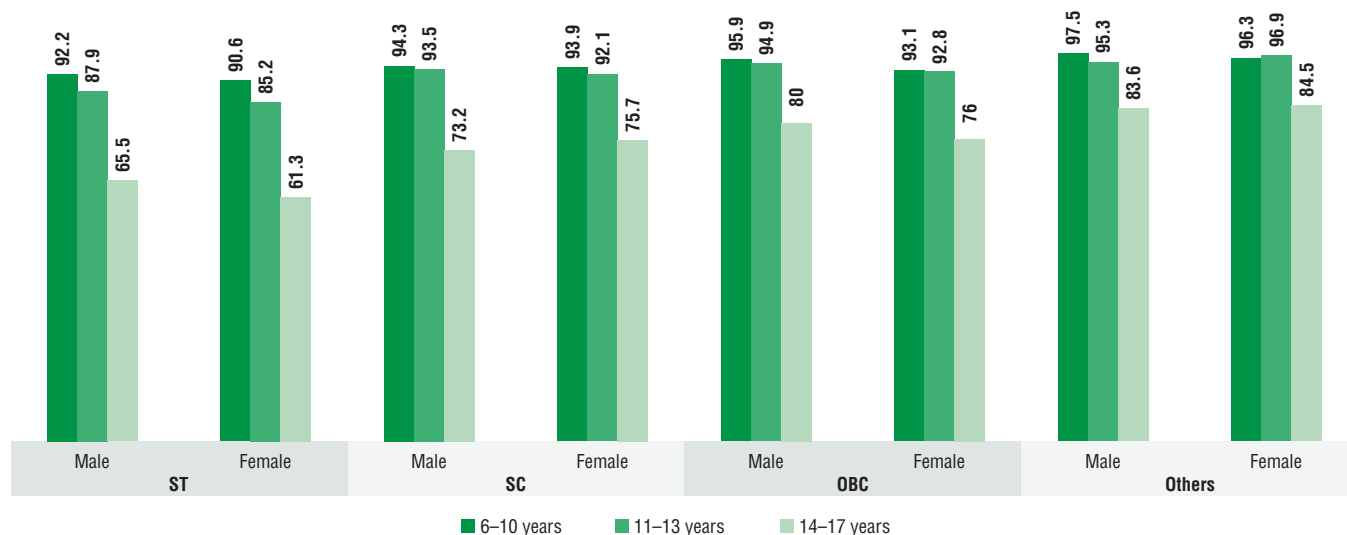
4 For each age group, this refers to the percentage of persons in that age group currently attending educational institutions, irrespective of the level or class in which they are studying. The attendance figures covered both formal and non-formal education.

Figure 5.6: Percentage distribution of persons of ages 3–35 years by enrolment by social groups, 2017–18

Source: NSS 75th Round, 2017–18.

The ASAR figures for men and women separately show that for the school-going age groups, the gender gap among students in the youngest age group (6–10 years) is very low, at 3–4 per cent,

Figure 5.7: Age-specific attendance ratio (per cent) of selected age groups by sex by social groups, 2017–18



Source: NSS, 75th Round, 2017–18.

Table 5.10: Age-specific attendance ratio (per cent) for 3–35-year-old students in India by social groups, 2017–18

	ST	SC	OBC	Others
3 to 5 years	26.2	29.2	32.0	42.4
6 to 10 years	91.5	94.0	94.2	97.1
11 to 13 years	86.7	92.9	93.9	96.0
14 to 17 years	63.6	74.3	78.2	84.0
18 to 23 years	19.3	23.7	28.3	35.5
24 to 29 years	2.1	1.9	1.9	2.5
30 to 35 years	0.1	0.1	0.2	0.2
Total (3 to 35 years)	39.6	42.1	44.5	44.9

Source: NSS, 75th Round (2017–18).

across the social groups (Figure 5.7). However, the ASAR figure for females among STs is lower than that for males for both the higher age groups, in contrast to the other social groups.

5.6 Barriers to Schooling for ST Children

We have seen in the preceding discussion that the gender gap in school enrolment is narrowing for the ST community, but that STs still have relatively

poorer access to education at the secondary level and above, and lag behind the other communities in completion of school education. The relatively high dropout rates for STs have been attributed to poverty, engagement in economic activities, language barriers, and so on. The persistence of the barriers to education for the STs can be gauged from the fact that as recently as in December 2018, a statement made in reply to Rajya Sabha Starred Question No.*272 says:

‘Tribal education has been a challenge mainly on account of their traditional lifestyles, the remoteness of habitations, dispersed population, displacement, language barriers, the low literacy rate among adults, low income of ST families compared to other social groups, inadequate staff and number of schools and colleges within normal commuting range etc.’

We next discuss these barriers individually. Traditionally, ST families work together as a family unit in cultivation and the collection of forest produce, which adversely impacts the regularity of children in schooling (UNICEF and UIS 2014). With the increasing scarcity of livelihoods, they migrate, again with families, for some part of the year, in search for work opportunities elsewhere. This can lead to temporary discontinuation of studies, and, subsequently, to the children leaving school altogether. Specifically, with respect to seasonal distress migration, it has been observed that

migrations begin around October–November, with migrant families spending the next 6-8 months at the worksites, and then returning to their villages before the next monsoon (Smita 2008). At the end of the monsoon, they again prepare to leave their villages. This cycle is typical of many of the poorest rural families in India, including the ST families. This seasonal migration cycle overlaps with 6-7 months of the school calendar and results in school attendance of enrolled children only from June until November, after which point, they often drop out.

For instance, among the ST community of the Dangs district, a backward district in Gujarat, one-third of the population has been found to migrate for work in the sugarcane harvesting sectors annually for around six months.⁵ During the time of migration, children often accompany their parents which affects their education. In a region with an ST concentration along the borders of Rajasthan, Madhya Pradesh, and Gujarat, where there is a large short-term migrant population, a study based on a sample of nearly 2,000 children aged 3–13 years showed that children who migrate with their parents face important educational disadvantages as compared to children who do not migrate (Coffey 2013). The education deficit is greater for older children than for younger children. It was found that 13-year-old children who migrated the previous year had completed about two years less of schooling, on an average, than those who did not migrate.

The Ho and Mahali tribes in Jharkhand and the Lodha tribes in West Bengal exhibit poor educational attainment, and a sharp rise has been observed in dropout numbers after acquiring primary level of education for these tribes (Ghosh 2007, cited in Brahmanandam and Bosu Babu 2016). Poverty, along with the imperative of children assisting their family members in sowing, weeding, plantation, and harvesting activities were found to be the main reasons for the increase in school dropouts. Poor attendance can also occur due to other factors. For instance, a study for the Santal tribe in the Jhargram district in West Bengal shows that some children in the study area are irregular in attending school due to the fear of elephants (Ahmed and Tattwasarananda 2018), which come out of the

nearby forested area and can attack as well as kill children, according to local ST residents.

In Chhattisgarh, a recent study found that the average distance of a school is a matter of concern in the Bastar region (Pankaj et al. 2018). The existing schools often do not meet the RTE distance norms of a primary school within a distance of one kilometre and an upper primary school within a distance of 3 kilometres of habitation. Students were found to be walking up to 3 kilometres, and some of them even 5 kilometres to reach their schools.

Notwithstanding the improved gender parity in enrolment, ground-level evidence points to greater chances of ST girls dropping out of schools as compared to boys. Lack of amenities such as drinking water and separate toilets for girls are the reasons for ST girls dropping out after the primary level (Rami 2012). A large study of two districts of Karnataka found that the reasons for the girls' discontinuation of schooling as well as their increased absenteeism at the secondary level included economic factors such as household poverty and girls' work-related migration, social norms and practices such as child marriage and devaluation of girls' education, and lastly, school-related factors such as a poor learning environment and bullying/harassment at school (Bhagavatheeswaran et al. 2016).

The language barrier is a major challenge faced by ST children and has been much discussed (Jhingran 2005, UNICEF and UIS 2014, CBPS 2017, Pankaj et al. 2018), along with the issue of multilingual teaching and learning, which has been highlighted in the New Education Policy (NEP), 2019. When the language of instruction in school differs from the language a child uses at home, it can cause great difficulty in understanding lessons. This acts as a discouraging factor and can lead to children dropping out of school (Rami 2012; Jhingran 2005).

Rani (2000) refers to the instance of Kuvi and Santali children attending Oriya- or Bengali-medium schools in Odisha or West Bengal where the monolingual ST child faces cognitive and communicative problems since the medium of instruction at school is the major regional language. A study on schooling in the inter-state border areas in Andhra Pradesh, Odisha, and Bihar, with concentrations of ST population, found that hardly any of the permanent teachers

⁵ <https://www.news18.com/news/india/in-gujarats-dang-district-tribals-are-left-with-no-option-but-to-migrate-for-survival-2089741.html>

in the elementary schools had any knowledge of the local language spoken by the children (Samson and De 2011 cited in UNICEF and UIS 2014). In Chhattisgarh, while a majority of the students are from the ST community, schoolteachers were found to belong mostly to the non-ST communities and the medium of instruction was Hindi, whereas most ST students converse in their mother tongue, such as Halvi, Bharthri, and so on (Pankaj et al. 2018). The fact that most children are first-generation learners, with hardly any support at home, and their lack of pre-primary schooling are additional barriers. For the ST population in the Visakha tribal region in Andhra Pradesh, lack of knowledge of Telugu has been found to be a barrier to ST children's education at the primary level (Veerabhadru 2015).

Some scholars have raised questions regarding the imposition of a common format of education on the STs, rather than implementing a system of education which acknowledges their body of knowledge, cultural traditions, language, and so on (Veerabhadranaika et al. 2012). They feel that this leads to the 'invisibilisation' of the community as *'even as they participate in formal education as students, teachers, parents, staff and school administrators, Adivasi people can never hope to find Adivasi knowledge, ethos, traditions, histories and languages as part of their educational experience'*. Rather than integration with the rest of the society, 'partial and limited' access to education is possibly contributing towards greater inequality within ST communities.

Poor school infrastructure facilities, along with a remote and unfriendly physical terrain, poor school administration, and mismatch of the school calendar with local festivals for the ST community are other factors that have been identified as barriers to school attendance in areas with a concentration of ST populations (Pankaj et al. 2018; Veerabhadru 2015; Gautam 2003). There is also a lack of community participation among the STs in encouraging children to attend school (Veerabhadru 2015; Gautam 2003).

Although the Parliamentary Standing Committee, 2014, had recommended that ST teachers from the community should be recruited and special training should be imparted to non-ST teachers to help them in acquiring familiarity with the tribal language

and the cultural environment, a study in the ST-concentrated regions in Maharashtra reports that this issue has not been addressed in the districts surveyed (CBPS 2017).

5.6.1 Computer literacy among the ST population (aged 5 years and above)

Given that the ST community suffers from grave education deficits and is largely poor, it is not surprising that computer literacy is scant among them. Although these days it is possible to pick up digital literacy even without access to formal and traditional schooling, this has not happened for the ST community. We see that for the population aged 5 years and above by social groups, STs have the lowest computer literacy, followed closely by the SC community. The rate of computer literacy among the OBCs is slightly higher than that for the SC/ST communities, while the 'Others', representing the general caste population, have much higher shares of computer literates among their population (Table 5.11).

Table 5.11: Computer literacy among social groups (2017–18) by shares (per cent) in population 5 years and above

Share in 5+ population	ST	SC	OBC	Others
Ability to operate computer	8.8	10.8	15.0	26.1
Ability to operate internet	11.2	13.7	18.4	31.0
Used internet in last 30 days	9.5	11.5	15.8	28.0

Source: NSS, 75th Round, 2017–18.

The habitat of the ST community has traditionally been rural forested areas, some of which are remote areas, and the community is economically disadvantaged. These areas also often have poor Internet connectivity. Therefore, obtaining access to computers or acquiring skills via the use of mobiles, tablets, and other devices is not likely to be easy for them. However, recent reports indicate that not only are the STs increasingly moving from being cultivators to agricultural labourers, but displacement and enforced migration have also led to an increase in the number of people among STs who work as

contract labourers in the construction industry and as domestic workers in major cities (MoHFW 2013). With more migration and urbanisation, digital literacy may spread more widely in this community.

5.6.2 Learning Outcomes

At the school level, in order to assess the ST children's learning outcomes, we examine the reports of the National Achievement Survey (NAS) conducted by the NCERT. The learning outcomes of ST children are, by and large, poorer than other social groups, along the same lines as for other education-related indicators

For the NAS (cycle 3) for Class III, the 2014 report indicates that ST children have the least scores among all social groups, though the difference with the other groups is small. For language, their score is 255, vis-à-vis a score of 261 for general caste students. For mathematics, there is a smaller gap with ST children scoring 250 as compared to a score of 254 for general caste children. Table 5.12 shows the comparative performance of 18 states which have an ST population that is above the national average of 8.61 per cent.

Table 5.12: Comparative performance of states in NAS (cycle 3) for class III in 2014

States with students' performance better than the national average in both language and mathematics	States with students' performance worse than the national average in both language and mathematics	States with students' performance worse than the national average in mathematics but better than the national average in language
Dadra & Nagar Haveli, Goa, Gujarat, Maharashtra, Manipur, Mizoram, Sikkim and Tripura	Arunachal Pradesh, Chhattisgarh, Jammu and Kashmir, Jharkhand, Madhya Pradesh, Meghalaya, Nagaland, Odisha and Rajasthan	Assam

Source: Accessed at https://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/Main-Report-NAS-Class-3-Final.pdf

At the end of the primary level, for Class V, the report for cycle 3 for the year 2012 concludes that in language, ST students were outperformed by all other social categories, with best performance being recorded by general caste students. In mathematics too, students in the general category achieved significantly higher average scores than those in other categories.⁶ While ST students had the lowest score among all social groups, no significant difference was detected in the average achievement levels of students in the SC and ST categories.

5.6.3 Performance in Selected States

At the class X level (cycle 2), we discuss the state-wise performance⁷ of the ST children for NAS for 2017–18 in states where STs comprise more than 20 per cent of the sample tested.⁸ The performance of students in this category is assessed for mathematics, science, social science, English, and modern Indian language.⁹

In Meghalaya and Mizoram, the ST scores were lower than the national averages except in English, where the state-level performance was much better than the national average. In Nagaland, the ST scores for mathematics and science were lower than the all-India scores, but the performance of ST children in social science and English was comparatively better. In Chhattisgarh and Jharkhand, the ST students performed worse than those in the general category in all subjects but better than SC students. In Madhya Pradesh and Tripura, however, the ST students performed worse than their counterparts from all the other social categories.

The social category was found to be the only variable that significantly impacts learning outcomes at all levels of education in a recent Maharashtra-based study involving 2,783 students across three

⁶ Report accept http://www.ncert.nic.in/departments/nie/esd/pdf/NAS_5_cycle3.pdf

⁷ The national report for the same is not available.

⁸ These states are Chhattisgarh, Gujarat, Jharkhand, Madhya Pradesh, Meghalaya, Mizoram, Nagaland, Odisha, and Tripura, with data not being available for Uttar Pradesh and West Bengal.

⁹ For Meghalaya, Mizoram, and Nagaland, the student sample had an overwhelming participation of ST students at 91 per cent, 98 per cent, and 92 per cent, respectively. Therefore, rather than comparing them with the other social categories, the scores for these states are compared with the national level.

Table 5.13: Secondary examination pass percentage during 2011–16

Year	All categories			Scheduled Tribes		
	Boys	Girls	Total	Boys	Girls	Total
2011 (P)	73.3	76.7	74.8	62.4	61.7	62.1
2012 (P)	74.4	78.0	76.0	61.5	61.2	61.4
2013 (P)	75.8	80.1	77.8	64.2	64.8	64.5
2014 (P)	77.6	81.0	79.2	65.1	63.8	64.5
2015 (P)	77.5	80.6	78.9	65.0	63.2	64.1
2016 (P)	77.7	79.8	78.7	65.2	64.9	65.0

Note: P indicates Provisional; Source: Ministry of Education earlier known as M/o Human Resource Development, cited in Annual Report of MoTA 2021-22.

classes and three districts with a concentration of the ST population (CBPS 2017). Based on tests for language, environmental science/general science, and mathematics, the mean percentages for learning assessment for classes II, V, and IX, respectively, were found to be 65.8, 54.78, and 60.02, indicating a score of at least 50 per cent for each class. ST students had a lower likelihood of scoring 40 per cent marks or 60 per cent marks overall.¹⁰

At the secondary and higher secondary levels of education, 65.0 per cent and 68.2 per cent of the ST students had completed Classes X and XII, respectively, in 2016, through various state and Central examination boards including open boards. The comparative performance of STs with all categories for secondary education indicates a considerable gap (Tables 5.13). The gap is 13.8 percentage points for the secondary level, with STs recording a poorer performance. The gap is wider for girls, at 14.9 percentage points, at the secondary level. However, for all the categories, the performance of girls surpassed that of the boys at the secondary level, while the gender gap is marginal for STs.

The transition rates from the secondary to higher secondary level for all categories of students for the year 2019-20 was 71.6% vis-à-vis 62.78% for the ST students, showing a gap of 8.82 percentage points. The girls were slightly ahead of the boys in terms

of transition rates between the two levels of school education.

5.6.4 Types of Schools and Educational Institutions Attended

The major types of schools in India under different forms of management are government, private aided, and private unaided. Some privately managed schools receive government aid, wherein the government has a say in matters such as teacher recruitment and school fees (Kingdon 2017). These are referred to as private aided schools, while others are private unaided schools. Enrolment in government schools has been declining in both rural and urban areas even though the private route of education is a comparatively costlier option. Table 5.14 shows a decline in the share of both ST and non-ST students attending government schools and a gain in the share of private schools at all levels of school education between 2007–08 and 2017–18. The data for rural areas are shown as it is more relevant for STs, who are concentrated in rural areas.

It is also observed that ST students are overwhelmingly present in government institutions,¹¹ relative to the non-ST students, as the latter increasingly access private schooling, especially at the primary and middle levels. This situation could be attributed to the high incidence of poverty among the STs due to which they are unable to access costlier

¹⁰ The two benchmarks considered, with 40 per cent considered to be the passing score.

¹¹ The share of government educational institutions for 2007–08 would be government and local body combined.

Table 5.14: Percentage distribution of students by type of institution attended for various levels of school education (rural)

	ST			Non-ST		
	Primary and below			Primary and below		
	Government	Private unaided	Others	Government	Private unaided	Others
2007-08*	89.1	4.4	6.4	74.2	15.6	10.2
2017-18**	87.3	9.2	3.5	67.7	26.1	6.1
	Middle			Middle		
	Government	Private unaided	Others	Government	Private unaided	Others
	2007-08	85	5.1	10.0	71.7	13.1
2017-18	87	7.2	5.9	74.4	18.2	7.4
	Secondary and higher secondary			Secondary and higher secondary		
	Government	Private Unaided	Others	Government	Private Unaided	Others
	2007-08	72.9	9.1	18.1	60.7	16.4
2017-18	79.2	9.3	11.5	65.4	19.3	15.3

Notes: *The age group considered is 5-29 years; ** The age group considered is 3-35 years.

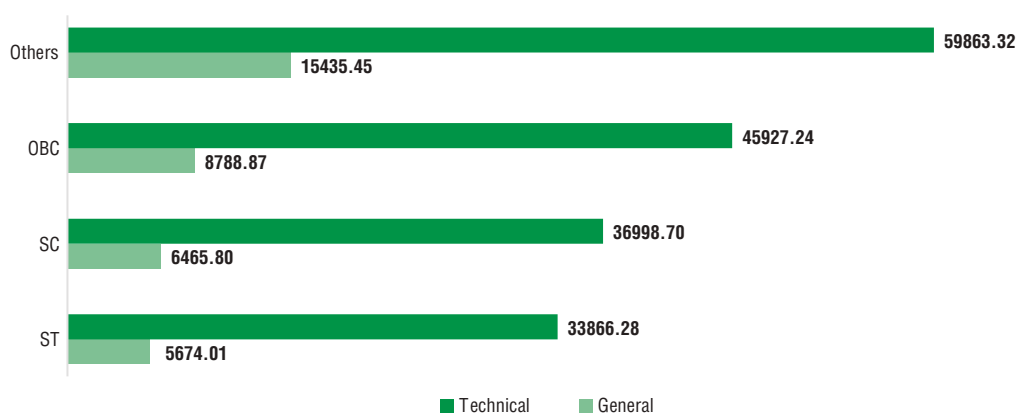
Source: Source: NSS, 75th Round, 2017-18 and NSS, 64th Round, 2007-08.

private options of education. At the lower levels of schooling, the government affirmative schemes for ST students such as free uniform, textbooks, and scholarships, may also be contributing towards a preference for government schools. However, at the secondary and higher secondary levels, more ST as well as non-ST students opted for government options between 2007-08 and 2017-18, possibly

due to relatively higher expenditure at higher levels of education.

5.6.5 Expenditure on Education by Households

In keeping with the overwhelming presence in government institutions, the expenditure on education, be it general education or professional/

Figure 5.8: Average expenditure per student for General and Technical education (in Rs.), 2017-18

Source: NSS, 75th Round, 2017-18.

Table 5.15: Enrolment in higher education during the period 2011-12 to 2019-20 (in lakhs)

Year	All categories	STs	SCs	Share of STs (per cent)	Share of SCs (per cent)
2011-12	291.8	13.1	35.7	4.5	12.2
2012-13	301.5	13.2	38.5	4.4	12.8
2013-14	323.4	14.9	42.4	4.6	13.1
2014-15	342.1	16.4	46.1	4.8	13.5
2015-16	345.8	17.0	48.1	4.9	13.9
2016-17	357.1	18.5	50.9	5.2	14.3
2017-18	366.4	19.1	52.8	5.2	14.4
2018-19	374.0	20.7	55.7	5.5	14.9
2019-20	385.4	21.6	56.6	5.6	14.7

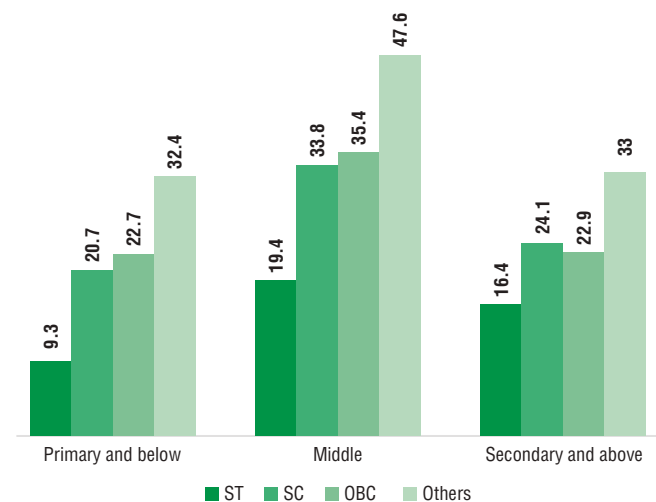
Source: MHRD 2019-20.

technical education, is found to be the least among STs as compared to the other social groups (Figure 5.8). For general education, the average expenditures incurred on education for SCs, OBCs, and general castes (Others) are 1.1, 1.5 and 2.7 times the average expenditure for an ST student. For technical education, the average expenditures incurred on education for SCs, OBCs, and general castes (Others) are 1.1, 1.4 and 1.8 times the average expenditure for an ST student.

As can be expected in view of their poor economic condition, the share of students taking private coaching is the least among STs for all levels of education, while it is the highest for general caste students by a big margin (Figure 5.9). The shares of students accessing private coaching are comparable for SC and OBC students and are also much higher than the corresponding shares for ST students.

5.7 Higher Education¹²

The total estimated student enrolment in India in higher education was 385.4 lakhs in 2019-20, with students belonging to the ST category constituting 5.6 per cent of this total. The SC student enrolment is 14.7 per cent and OBC student enrolment is 37

Figure 5.9: Share (per cent) of students taking private coaching by social groups by level of education (2014)

Source: NSS, 71st Round, 2014.

per cent of the total enrolment. The enrolment for various social groups for the period 2011-12 to 2019-20 is shown in Table 5.15.

The share of ST students in the total enrolment has increased very slightly from 4.5 per cent to 5.6 per cent between 2011-12 and 2019-20. The share of SC students was much higher at 12.2 per cent in 2011-12, and it also increased to 14.7 per cent

¹² The data for higher education has mostly been accessed from MHRD 2019.

in 2019–20. The estimated compounded average growth rate (CAGR) for enrolment in higher education was high for both the ST and SC communities, at 5.71 per cent per annum and 5.25 per cent per annum, respectively, while the growth rate was much lower at 3.14 per cent per annum for all the categories. It must be remembered, however, that the base level of enrolment was comparatively very low for the ST community in 2010–11, and the growth rate may be reflected as high due to the low base.

5.7.1 Gross Enrolment Ratio in Higher Education (18–23 years)

As of 2019–20, the Gross Enrolment Ratio (GER) in higher education in India is 27.1 per cent, which has been calculated for the age group of 18–23 years. For the STs, it is much lower at 18 per cent, while for the SCs, it is 23.4 per cent. Since 2010–11, the GER has mostly shown a rising trend for all the social categories considered, but the GER for STs has consistently remained well below that of all the categories (Figure 5.10). In 2010–11, the GER for STs was comparable to that for the SCs, another disadvantaged social category, but it remained stagnant for STs till 2013–14, after which it increased steadily. For SCs, the GER has increased over the entire period between 2010–11 and 2019–20.

The GER for males at the all-India level is 26.3 per cent whereas the corresponding figure for ST males is much lower, at 18 per cent (Table 5.16). Similarly, the GER for females at the all-India level is 27.3 per cent whereas the corresponding figure for ST females is very low, at 17.7 per cent. The gender gap in GER, that is, the difference between the male and female GER is positive for STs, while it has become negative for all the categories and SCs.

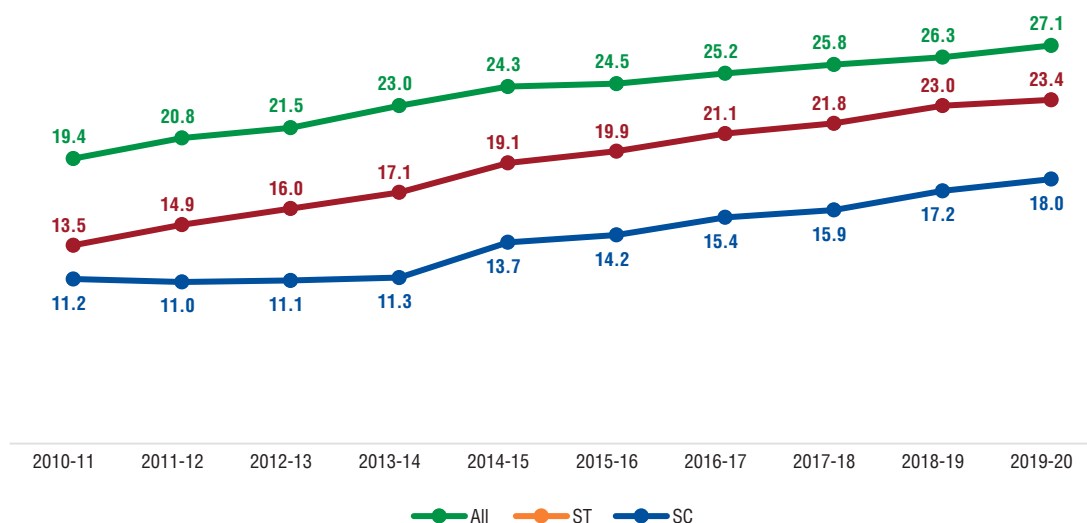
Table 5.16: GER in higher education (18–23 years) by social groups, 2019–20

Social group	Person	Male	Female	Gender gap
All categories	27.1	26.9	27.3	-0.4
ST	18.0	18.2	17.7	0.5
SC	23.4	22.8	24.1	-1.3

Source: MHRD 2019-20.

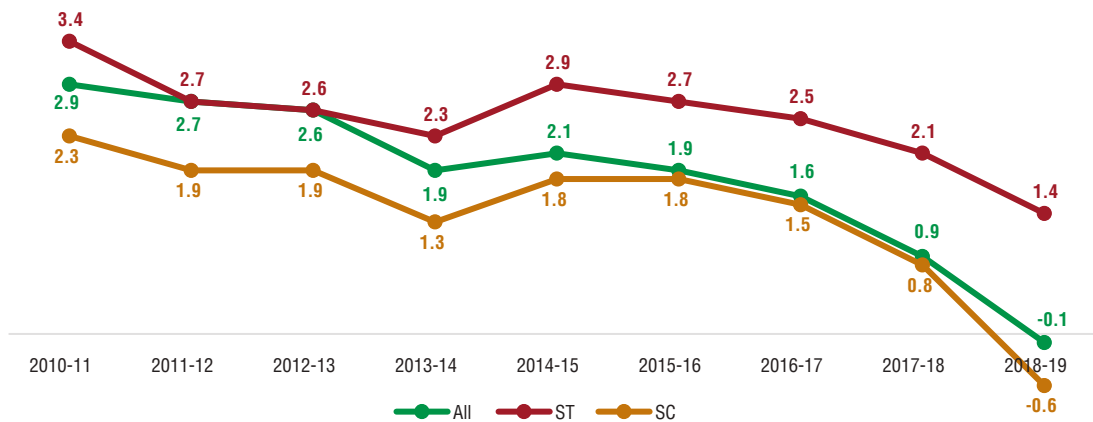
During the period 2010–11 to 2018–19, the gender gap declined for all social categories considered, as well as for 'all categories', except for a slight rise seen after 2013–14 (Figure 5.11). The gender gap for the STs, however, has been persistently much higher than the gender gap levels for the SCs, and

Figure 5.10: GER in higher education (18–23 years) by social groups, 2010–11 to 2019–20



Source: MHRD 2019-20.

Figure 5.11: Gender gap in GER for social groups 2010–11 to 2018–19



Note: Gender gap is male GER minus female GER.

Source: MHRD 2018-19.

mostly above the gender gap for all categories. Thus, as compared to the ST women, the ST men have had much better access to higher education, while among the SCs, the access was more equitable for men and women.

Thus, the educational disadvantage faced by the ST community at lower levels of education poses challenges for continuation on the education trajectory by students after school, despite the existence of reservation policies. It is also obvious from all indicators that the women in this community suffer from a greater disadvantage as compared to the men.

There are state-wise differentials for the GER in higher education for STs (Table A1 in Appendix 5.2). In the North-eastern states, which have a concentration of STs, the GER is at par or higher than the GER for all categories, except in Tripura. In most states in the eastern and central, western and southern regions, the STs have a relatively lower GER as compared to those for all the other categories.

5.7.2 Technical Education and Skill Training

The uptake of technical education is extremely low among youth in India, at only 3.9 per cent, as a majority of them prefer to pursue general education. Among the non-ST population, this share is 4 per cent, and for STs, this share is even lower, at 1.9 per cent (Table 5.17). The general caste population is

seen to have the highest share in terms of accessing technical education, but this share is also as low as 5.6 per cent.

Table 5.17: Social group-wise distribution (per cent) of students (3 to 35 years) by type of course pursuing (general and technical/professional) in India in 2017–18¹³

Indicators	ST	Non-ST				All
		SC	OBC	Others	Non-ST (total)	
General	98.1	97.0	96.4	94.5	96.0	96.2
Professional/ Technical	1.9	3.1	3.6	5.6	4.0	3.9

Source: NSS, 75th Round, 2017–18.

The incidence of skill training, too, is abysmally low in the country among all the social groups, with 95 per cent of the people (aged 15–59 years) not having received any skill training

13 The main objective of the NSS 75th round (July 2017- June 2018) survey on 'Household Social Consumption: Education' was to build indicators on the participation of persons aged 3 to 35 years in the education system, the expenditure incurred on the education of the household members and various indicators pertaining to those currently not attending education. The starting age is 3 years, given that many children in the age group of 3-5 years enrol in pre-school education.

Table 5.18: Social group-wise percentage distribution of persons (15 to 59 years) in India by the status of vocational/technical training in 2017–18

Indicators	ST	Non-ST				Non-ST (Total)	All
		SC	OBC	Others			
Receiving formal vocational/ technical training	0.3	0.5	0.6	0.8	0.6	0.6	
Received formal vocational/technical training	0.5	1.1	1.1	2.0	1.4	1.3	
Received vocational/technical training other than formal vocational/technical training	3.0	3.1	3.4	2.8	3.1	3.1	
Did not receive vocational/technical training	96.2	95.4	94.9	94.5	94.9	95.0	

Source: NSS, 75th Round, 2017–18.

(Table 5.18). The limited training that is accessed is also largely informal, as indicated by the fact that across all social groups, approximately 3–4 per cent people received informal vocational/technical training.

5.8 Policy Approach to Education for the STs

During the pre-Independence period, the British government exhibited a relative disregard for educating the ST community. Post-Independence, this was replaced by a fresh approach by the Indian government manifested in efforts towards recognition of the unique cultural identity of the tribes and plans to shape their education by taking into account these differences with the mainstream population. The main instrument for many years in this effort, however, were the *ashram shalas* or residential schools, which aimed to make education more accessible to the ST community living in remote, forested areas. Appendix 5.1 depict the chronological changes in policy approach to ST education since the initiation of the planning process in India.

Tracing the contours of the policy approach towards education for the STs, we notice that until the 1980s, the government's efforts did not produce adequate results. Following the Sarva Shiksha Abhiyan (SSA) and later on, through the pursuit of a more targeted policy for educating the ST community, there has been some progress in their education, at least at the basic level. However, as compared to the other social groups, the ST community continues to be at the bottom of the education ladder in nearly all stages of education.

The *ashram* schools signifying the residential mode of imparting education appear to have benefited some ST children, considering their poor access to education as well as the uncertain atmosphere due to LWE prevailing in remote forested areas, which are usually the habitat for STs. But questions have been raised about *ashramisation* of the approach for the ST community's education in the sense that rather than take education to their local habitats, the government policy had initially encouraged the educational grooming of the ST children in *ashrams*, viz., hostels and residential schools, segregating them from their homes and habitats (GoI 2014).

Ashram schools and other residential schools: *Ashram* schools are residential schools run by State governments that impart primary, middle, and secondary education to ST boys and girls. These schools have functioned as an important tool for providing formal education to ST children at the elementary level (PSC 2014). The NPE, 1986, and the PoA Plan, 1992, accorded priority for the establishment of *ashram* schools on a large scale. Now *ashram* schools fall under the jurisdiction of the Ministry of Human Resource Development (MHRD). The Ministry of Tribal Affairs (MoTA) has also been implementing a scheme called the 'Establishment of Ashram Schools in Tribal Sub-Plan Areas', under which grant-in-aid is given to States for the construction of school buildings. As on 13 December 2018, a total of 1,205 *ashram* schools have been sanctioned by the MoTA across the country.

During the pre-Independence era, there were two strands within the *ashram* schools—one comprised school initiated by civil society

organisations which were inspired by the thoughts of political thinkers and social reformers such as Gandhi, Tagore, and Vinoba Bhave (CBPS 2017). The other strand comprised schools started mainly by religious organisation-backed NGOs with the purpose of 'refining' and integrating STs into the Hindu fold, or in some cases, by Christian missionaries to bring STs into the fold of Christianity. Thus, an underlying principle was that there was a need to civilise the ST community through the means of education outside the social and cultural life of this community.

In this sense, the concept of the residential school was influenced, to an extent, by the concept of the educational and cultural grooming of STs.

The ground level assessment in 2014 suggests that though *ashram* schools have indeed made education more accessible to ST children, especially those who live in remote areas, their functioning leaves much to be desired. The sub-standard quality of food, provision of poor-quality personal care products, overcrowding in rooms, and cases of students dying from snake bites, scorpion bites, fever, and minor illnesses in the *ashram* schools were some the issues flagged by the students. Further, there were security concerns in *ashram* schools located in areas affected by Naxal violence.

- 1. Ekalavya Model Residential School (EMRS):** This is another government initiative aimed at providing quality middle- and high-level education to ST students in remote areas, to ensure that they can avail of reservation in high and professional education courses and in jobs in the government and public and private sectors. These schools also aim to enable ST children to access the best opportunities in education, at par with the non-ST population. A total of 684 schools have been sanctioned.

There are plans to set EMRSs in all the blocks with more than 50 per cent ST population and at least 20,000 ST individuals by 2022. As per the extant guidelines, the number of seats for boys and girls is equal in each EMRS. As on 21st July 2022, the enrolment of ST girls is 54,196 while enrolment of ST boys is 51,267, in 378 EMRSs

across the country.

The EMRSs focus not only on academic education but on the all-round development of the students. Each school has a capacity of 480 students, catering to students from Class VI to XII.

The EMRSs have become an island of excellence in the remote tribal hinterlands and have served as an inspiration for many tribal children. The special coaching, educational tours, exposure visits, special camps, sports camps, etc. have helped students there has been a high pass percentage of nearly 90%, of which 53% have secured 1st division in 10th during the examinations of 2017-18. Students have also excelled high in sports and other co-curricular activities. A number of students from our EMRSs have successfully cleared competitive exams like NEET, IIT-JEE, the National Law School etc. Students of EMRS have found a place in national teams of some sports activities such as kabaddi (see Box 5.2).

Pota Cabins represent another innovative form of residential schools that have helped in preventing school dropouts in areas affected by extremism-related violence in Chhattisgarh (see Box 5.3).

Box 5.2

Eklavya Schools Help to Close Gap Between ST and Non-ST Students

The Eklavya Model Residential Schools (EMRS), Eklavya Model Day Boarding Schools (EMDBS) and Centre of Excellence for Sports are being established for ST and PVTG students in the context of trend of establishing quality residential schools for the promotion of education and also to ensure all round development of tribal students in all areas, habitations and diversified environment throughout the country. The EMRS aim to provide quality upper primary, secondary and senior secondary level education to ST and PVTG students in tribal dominated areas, along with extra-curricular activities, to enable them to access the best opportunities in education and to bring them at par with the general population.

EMRSs were started in the year 1997-98. In order to provide further impetus to EMRS, it has been

decided that by the year 2022, every block with more than 50 percent ST population and at least 20,000 tribal persons, will have an EMRS. This indicates that 462 new schools have to be opened by the year 2022. Eklavya schools will be on par with Navodaya Vidyalaya and will have special facilities for preserving local art and culture besides providing training in sports and skill development.

Eklavya Model Day Boarding Schools (EMDBS): In identified Sub-Districts with ST population density of 90 percent or more, it is proposed to set up Eklavya Model Day Boarding School (EMDBS) on an experimental basis to provide additional scope for ST Students seeking to avail school education without residential facility.

Centre of Excellence for Sports (CoE for Sports): Dedicated infrastructure for setting up Centre of Excellence for sports with all related infrastructure is supported. This Centre of Excellence will have specialized state-of-the-art facilities for one identified individual sport and one group sport in each State. These CoE for Sports will have the State-of-the-Art facilities, equipment and scientific back up along with specialized training, boarding and lodging facilities, sports kit, sports equipment, competition exposure, insurance, medical expenses etc. as per norms of Sports Authority of India.

Source: The official website of the Ministry of Tribal Affairs
<https://tribal.nic.in/EMRS.aspx>

Box 5.3

Pota Cabins in Chhattisgarh

For the benefit of out-of-school children, especially in the LWE-affected areas, an innovative educational initiative for building schools with impermanent materials such as bamboo and plywood were started in Chhattisgarh. These schools, known as Pota Cabins, or residential 500-seater campuses, were installed in 2011. At that time, the share of out-of-school children share in the age group of 6–14 years in Dantewada district was 50.3 per cent, and 20–30 per cent schools were reported to be defunct.

In order to address the issue of destruction of concrete structures, the administration decided to build schools made of prefabricated materials such as bamboo and ply to ensure that schools could not be used as hideouts or armed camps. Second, it

would also help draw children away from the remote and interior areas of villages that are more prone to LWE violence. Since these schools are perceived as places where children can receive adequate food and education, they are often referred to as Pota Cabins locally, as 'pota' means 'stomach' in the local Gondi language. This initiative has proved to be highly effective because of the appointment of local volunteers with a knowledge of the tribal language. Pota Cabins have thus enabled in increased outreach, improved enrolment and retention, and empowerment of children and local communities.

Source: NITI Aayog (2015).

- i. **Multilingual education approach:** This approach has been adopted in some ST-dominated areas to overcome the language barrier in schooling. Panda et al. (2011) reported the findings of a longitudinal study undertaken by the National Multilingual Resource Consortium (NMRC) to study the effects of multi-lingual education (MLE) in Andhra Pradesh and Odisha (Nag 2018). Students studying in MLE schools were found to be performing better in the curricular domains of language, environmental studies, and mathematics. Further, the levels of participation among students were seen to be higher in MLE schools. To make them more effective, the dominant regional script could be used to write the ST languages.

As per reports from the governments of Andhra Pradesh, Jharkhand, and Telangana, adaptation programmes regarding tribal languages and culture are being run for regular and contractual teachers in tribal regions in their States. The MoTA extends support to State/UT governments for promoting mother tongue-based education and developing bilingual primers for the enhancement of learning achievement levels amongst the ST students.¹⁴ So far, 82 language primers have been developed by various State governments, as detailed in Table 5.19.

- ii. **Reservation of seats in higher education:** Reservation has been used as an instrument for promoting the affirmative approach towards the

¹⁴ Lok Sabha Unstarred Question No.†122 to be Answered on 03.02.2020, MoTA, GoI.

Table 5.19: Language primers developed for Scheduled Tribe children in states

State	Primers Details	Language/Tribe Covered
Tripura	14	Kokborak, Halam, Mog, Garo, Kuki, Mizo
Odisha	5	Juang, Kisan, Koya, Oram, Saora
Maharashtra	11	Gondi, Halbi, Kokni, Kolami, Korku, Madiya, Mavchi, Pardhi, Pawari, Thakri
Madhya Pradesh	15	Halbi, Kudhukh, Bhili, Gondi, Korku
Kerala	6	Kattunaikan, Paniyan
Chhattisgarh	5	Kukudu, Praja, Halbi, Bharia
Jharkhand	5	Kukudu, Khadia, Khorat
Telangana	5	Gondi, Koya, Kolami, Kondh, Banjara
West Bengal	16	Olchiki, Kuduk

Source: Lok Sabha Unstarred Question No. †122 answered on 03.02.2020, MoTA, GoI.

education of the STs. In Central government-funded higher education institutions, 7.5 per cent of the available seats are reserved for ST students. In Chapter 1, we had noted that STs are grossly under-represented among PhD students in IITs—just 2.1 per cent of the IIT students are STs despite the reservation of 7.5 per cent of the seats for them¹⁵. From all accounts, the advancement of STs in better jobs and professions has been limited.

A major factor at work here is that STs have a long history of capability deficits which have contributed to their under-privileged status and which cannot be redressed merely through the enactment of a law of reservation. The privileged social groups with a long history of higher education and entry into higher professions possess what Pierre Bourdieu called educational capital—the educational capacity that is accumulated through generations of participation in higher education. In other words, as Raghuram Rajan, former Governor of the RBI points out, “... *affirmative action also requires affirmative support—the coaching and hand-holding that someone from an underprivileged section of society, thrown into the competitive elite world, needs, because they have not had the same privileges of growing up like the others. Else, affirmative action risks reinforcing stereotypes*” (Rajan 2019: 301). The fact that coaching in

technical as well as soft skills is needed as a supplementary input is clear from the success of initiatives such as ‘Super 30’ in Bihar, wherein students from another underprivileged community, the SCs, have shown excellent performance in IIT entrance examinations under the tutelage of Anand Kumar and Abhayanand.

5.9 Major Education-related Schemes for the STs

The Indian government aims to close the educational gap between the STs and the rest of the population by using many targeted schemes as instruments. Many such schemes targeted towards ST children and youth have been delineated in the preceding section. For instance, ST students have reportedly benefited from *ashram shalas* or residential schools. They also receive assistance in the form of scholarships, grants, and hostel fees, among other such means of support. At present, the Scholarship Division of the MoTA provides financial assistance to states/individual beneficiaries/institutes as per schematic norms. The MoTA is implementing the following scholarship schemes for ST students in the country:

- Pre-matriculation scholarship for ST students (classes IX and X);
- Post-matriculation scholarship for ST students (classes XII onwards);
- National fellowship and scholarship for higher education of ST students; and

15 <https://www.thehindu.com/news/national/sc-st-student-enrolment-in-phd-programmes-remains-low-in-iits/article31013959.ece>

- National Overseas Scholarship for ST students.

A scheme of pre-matric scholarship for needy ST children studying in classes IX and X was introduced with effect from 1 July 2012. The twin objectives of this scheme were to support the parents of ST students for the education of their wards studying in classes IX and X to minimise the incidence of dropouts among the STs, especially in the transition from the elementary to the secondary stage, and during the secondary stage of education, and to improve the school participation of ST students in classes IX and X to enable them to perform well and have a better chance of progressing to the post-matriculation stages of education. For the post-matric level, too, a scholarship has been provided, which is an important centrally sponsored scheme to promote higher education among STs.

Under the National Overseas Scholarship Scheme for Higher Studies Abroad, the MoTA provides financial assistance to students selected for pursuing higher studies abroad for getting post-graduation degrees, and for PhD and post-doctoral research programmes. For better implementation and monitoring of the two Central sector scholarship schemes for ST students, viz., the National Fellowship and Top-Class Education, MoTA has merged the two schemes into a single Central sector scheme called “National Fellowship and Scholarship for Higher Education of ST Students”.

There is also a scheme of vocational training in areas with a concentration of the ST population, under which grants are available for organising vocational training in recognised institutes or Vocational Training Centres (VTCs). This scheme is slated to be implemented for the benefit of both the STs as well as the Particularly Vulnerable Tribal Groups (PVTGs), and can be put into effect anywhere in the country, but priority will be given to initiation of these schemes in the remote ST areas, areas inhabited by the PVTGs, and areas affected by extremist activities. The scheme stipulates provision of training for trades, including modern trades, which have a high employment potential in the region concerned.

One of the objectives of the general provisions such as the Tribal Sub-Plans and Integrated Tribal Development Plans is educational attainment for promoting the overall socio-economic development

of STs. Other schemes such as the Mid-day Meal and Early Childhood Care and Education (ECCE) also have an indirect impact on the education of ST children as they help mitigate the various socio-economic disadvantages faced by them.

5.10 Concluding Remarks and Suggestions for the Way Forward

The discussion in this chapter established how the ST community continues to be at the bottom of the education pyramid, in terms of access, completion of schooling, and outcomes at all stages of education, with the exception, perhaps, of school access at the primary and upper primary levels where the community appears to have narrowed the gap with the other social groups. The ST children face severe challenges, including poverty, remote and isolated location of habitats, languages that are different from the mainstream, and a unique culture distinct from the mainstream, all of which undermine efforts to assimilate them into the mainstream education process.

The residential schools in the form of *ashram shalas* have improved school access for ST children but often suffer from poor functioning and maintenance. Various multi-lingual education-related experiments have been conducted to overcome the language barriers for ST children, but these have not been successful enough to be replicated widely. Moreover, recent reports suggest that with the loss of traditional livelihoods, members of the ST community are migrating more and more to cities, which means that addressing the challenge of migrant children's education is becoming increasingly important.

As educational access improves in India, the focus is gradually moving from universalising elementary education towards the attainment of secondary levels of education. To this end, to be at par with the rest of the Indian population, there is a need for adopting a holistic approach in terms of increasing the ST community's participation in education. The figures for the adolescent literacy rate show that for the younger age cohorts, the literacy gap between ST students and other social groups is narrowing, which is an encouraging development. However, the various axes of exclusion posed by poverty, location, language, and other such factors need to be addressed holistically if the ST children are to be

successfully assimilated into the schooling process.

The livelihood challenge for the ST community is a major area which needs to be addressed, otherwise, children from this community will continue to be irregular in schooling to help their parents in their activities, or migrate seasonally with their families, all of which will lead to dropping out of school. In case of migrant families, it has been observed that rather than attending schools at the 'receiving end', if children stay behind and attend schools at the 'sending end'¹⁶, then the school attendance is less disrupted. In that sense, the local schools will not only need to provide residential options, but these will also need to be made secure.

Language issues constitute another important area that needs to be addressed with the help of local teachers from the ST community for better communication with ST students. The classroom teaching and learning process must engage the students' attention successfully to lead to better learning outcomes. If the classroom transaction is beyond their comprehension, and there is no concession for a transition period where they move from their local language to the main medium of instruction, then those students will continue to drop out of school, citing lack of interest in studies as a reason for doing so. In this context, the NEP, 2020, with its emphasis on teaching in the mother tongue or local languages in the early years, will provide the necessary momentum, if effectively implemented. The school curriculum also needs to be sensitive to the fact that the background of ST children, their culture, and ethos are different from those of children in the mainstream.

The education should be holistic in the sense that it should impart the basic skills of literacy and numeracy to the students, and should, at the same time, contribute to their all-round development. Many athletes and sportspersons have come from areas with concentrations of ST populations in the recent past, and encouragement of sports activities in the schools would also contribute towards containing dropout rates.

Community motivation and participation is an essential ingredient for the successful completion of

formal education levels in the ST community. School calendars need to be synchronised with the local holidays and festivals, and there is also a need for monitoring school attendance.

The residential option for schooling has improved school access in certain areas, especially where the ST habitations are in jungles and remote locations, as well as in the LWE-affected areas. These *ashram shalas* are reported to have many gaps in terms of functioning and security. Such problem areas need to be addressed urgently so that the potential of the ST children can be tapped effectively through educational access. Physical access to secondary and higher-level schooling is the worst among the STs as compared to all the other social categories and could be one reason as to why the dropout rates are very high at this level. More schools thus need to be built and access to more and better functioning *ashram shalas* needs to be ensured.

India has seen a massive surge in the demand for schooling. This is no different in many of the places where there is a concentration of ST households. But given that the ST community suffers from high levels of poverty, accessing livelihood options is likely to influence the decision of school completion for children. Therefore, a comprehensive approach with simultaneous improvement in livelihood opportunities of the ST households and a thrust towards their educational attainment is likely to take this community forward towards educational attainment and greater inclusion in the developmental process.

¹⁶ Here 'sending end' refers to the location from where migrant families migrate and 'receiving end' refers to the destination.

Appendix 5.1

Timeline of policy approach to education for the ST community:¹⁷

- During the **First Five Year Plan period (1951–56)**, around 4,000 schools were established in the tribal areas, which included 1,000 Ashrams and Sevashram Schools and 650 Sanskar Kendras, Balwadis and Community Centres in the central tribal belt between Odisha in the East and Rajasthan and Maharashtra in the West. The ST students also received assistance in the form of scholarships, grants, hostel fees, and others. The **Second Plan (1956–61)** adopted a similar approach towards the education of the ST community.
- The Scheduled Areas and Scheduled Tribes Commission (1960–61), chaired by Shri U.N. Dhebar and the Indian Education Commission (1964–66) examined the low educational level of the STs during the **Third Plan (1961–66)**. The Dhebar Commission found that the problem of absenteeism, stagnation, and dropouts among the STs was far greater than among other social groups. Recognising the distinctive cultural identity of STs, the Dhebar Commission wanted to make use of tribal language and cultural resources.
- The Indian Education Commission endorsed the recommendations of the Dhebar Commission, adding a note of urgency that ‘intensive efforts’ need to be made to provide five years of early education to all ST children by 1975–76. To achieve this, the Commission wanted the support of simultaneous intensive parental education.
- Poor learning outcomes, including high dropouts, especially at the primary level, over the period 1951–81, were reflected in estimates provided in the **Sixth Plan (1980–85)**, which mentioned that 56 per cent of the ST children in the country (including 49 per cent boys and 70 per cent girls) were yet to receive elementary education.
- The National Policy for Education was drawn up in 1986, during the **Seventh Plan (1985–90)**, with a renewed emphasis on elementary education. The NEP addressed the issue of education of the STs, acknowledging that poor school facilities, unrelated curricula, poor methods of teaching, and poverty were the main challenges in this regard. The NPE prioritised the construction of school buildings in tribal areas under government schemes, development of curricula based on the cultural identity of STs and in their languages, with the provision for switching over to regional languages. The expansion of residential schools, including *ashram* schools, *anganwadis*, and Adult Education Centers was another major recommendation.
 - Operation Blackboard under the NEP was launched by the government in 1987 and was meant to provide basic infrastructure and essentials of schooling such as classrooms, teachers, and so on. In 1990–91, the government launched, new Ashram Schools from the primary to secondary level in Tribal Sub-Plan areas, under its tribal division.

The government drew out a Programme of Action (PoA) in 1992 following policy revision. The PoA aimed to provide a primary school in every tribal habitation before the end of the **Eighth Plan (1992–97)**, implementation of the educational plan in an integrated manner by the coordination of *Balwadis*, non-formal education, adult education, and elementary education. All schools in tribal areas were to be covered under Operation Blackboard within two years. Preparation of instructional materials in tribal languages, providing additional scholarship and provision of special coaching, training and remedial teaching classes were among the other major plans.

- The District Primary Education Programme (DPEP) in 1994 was another important education-related

¹⁷ This section draws upon Gol (2014), UNICEF (2014), and government websites of MHRD and MoTA for information.

initiative of the government, implemented with partial funding from the World Bank. The DPEP aimed to revitalise the primary education system and to achieve the universalisation of primary education.

- The National Programme of Nutritional Support, providing each primary school student with 3 kilograms of food grains per month, was launched in 1995. A Minimum Level of Learning programme was introduced to ascertain competencies that all primary school students should be able to master in language, mathematics, and environmental studies.
- At the secondary education level, the government promoted the programme of vocationalisation, which was relevant for ST youth in view of their high dropout rates at the secondary school level, and subsequent unemployment. In 1993–94, a programme of pre-vocational training for students of classes IX and X was initiated, to impart training in simple marketable skills and to develop student interest in the vocational stream at the senior secondary level. The National Open School System was also an avenue for bringing weaker sections into the fold of education.
- During the **Ninth Plan (1997–2002)**, the MoTA was set up in 1999 after the bifurcation of the Ministry of Social Justice and Empowerment to provide a more focused approach on the integrated socio-economic development of the Scheduled Tribes (STs) in a coordinated and planned manner.
- In 2001, the flagship programme Sarva Shiksha Abhiyan (SSA) was launched, which aimed to universalise elementary education (8 years of schooling). The SSA retained most of the DPEP goals, merged most other existing programmes on elementary education, and extended its coverage to all districts.
- During the **Tenth Plan (2002–2007)**, the Andhra Pradesh Multi-Lingual Education pilot project was started in 2003 as a pilot project for multi-lingual teaching in primary classes in the tribal areas. In the same year, the National Programme for Education for Girls at the Elementary Level (NPEGEL) was launched to close the gender gap in school participation of SC/ST girls. Model cluster schools as resource centres and other incentives were provided for girls in backward blocks.

In 2004, the Kasturba Gandhi Balika Vidyalayas (KGBVs) were set up as residential schools at the upper primary level for girls belonging to the SCs/STs/OBCs/minorities in difficult areas with a focus on out-of-school girls. These were later merged with the SSA. In the same year, the Mid-Day Meal scheme was introduced to provide hot cooked mid-day meals for all children in primary classes in government and aided schools. This was later extended to all children studying in classes 1 to 8 in government and aided schools.

- In 2007, the Odisha Multi-Lingual Education pilot was introduced, which adapted the Andhra Pradesh MLE programme and was piloted in the ST concentration areas in the State.
- During the **Eleventh Plan (2007–12) period**, the RTE Act was promulgated in 2009. This Act states that all children aged 6-14 years have a right to free and compulsory education and recommends the provision of a free pre-school facility for children in the 3–5 years age group.
- The flagship scheme, the Rashtriya Madhyamik Shiksha Abhiyan (RMSA), was launched in March 2009 to improve access to secondary education and to improve its quality. It was envisaged to achieve an enrolment rate of 75 per cent from 52.26 per cent in 2005–06 at the secondary stage of implementation of the scheme by providing a secondary school within a reasonable distance of any habitation. The other objectives included improving the quality of education imparted at the secondary level and providing universal access to secondary level education by 2017, that is, by the end of Twelfth Plan (2012–17) and achieving universal retention by 2020. The RMSA gives preference to Ashram schools for upgradation, and preference to areas with a concentration of SC/ST/minorities for the opening of schools and has a special enrolment drive for the weaker sections, among other equity-enhancing measures.
- The Budget of 2018–19, provided considerable emphasis towards setting up Ekalavya Model Residential Schools (EMRS) for ST children. EMRSs had been started in the year 1997-98 to impart quality education

to ST children in remote areas in order to enable them to avail of opportunities in high and professional educational courses and get employment in various sectors. The schools focus not only on academic education but on the all-round development of the students. The revamped EMRS scheme in 2018-19 budget covered some important areas, which included the creation of a separate Scheme of EMRS¹⁸, schools set up with a capacity of 480 students, provision for setting up of Ekalavya Model Day Boarding Schools (EMDBS) in sub-districts with 90 percent or more ST population and 20,000 or more tribal persons, and setting up of Centre of Excellence for sports in tribal majority districts with all related infrastructure.

- The Rastriya Uchcharat Shiksha Abhiyan (RUSA) was launched in 2013. This scheme aims to provide strategic funding to eligible state higher educational institutions. The RUSA was introduced alongside Centres for Studies in Discrimination and Exclusion, Indira Gandhi National Tribal University, and several central universities, more IITs IIMs in the interest of the weaker sections and the STs. Acknowledging the gap between the GER of SC/STs and general caste population, the RUSA aims to expand access with special emphasis on the rural and tribal areas.
- The National Education Policy 2020, advocates the need for classes in the early years to be conducted in students' local languages, which has great relevance for ST children's education. It says, '*Education will be in the local language/mother-tongue at least till Grade 5 but preferably till Grade 8, with a flexible (bilingual) language approach where necessary... It is important that local languages, including tribal languages, are respected and that excellent textbook are developed in local languages ... and outstanding teachers are deployed to teach in these languages.*'

18 This was hitherto funded under a Special Area Programme, 'Grants under Article 275(1) of the Constitution of India'

APPENDIX TABLES

Table A.5.1: GER in higher education (18–23) years in selected states, 2018–19

	All	SC	ST
Eastern and central region			
Bihar	13.6	10.0	18.3
Chhattisgarh	18.6	18.3	11.3
Jharkhand	19.1	15.9	13.7
Madhya Pradesh	21.5	19.7	11.4
Odisha	22.1	20.0	12.8
West Bengal	19.3	14.1	10.2
Western region			
Dadra & Nagar Haveli	9.3	18.4	5.0
Daman & Diu	5.5	20.1	12.8
Goa	30.1	30.1	26.4
Gujarat	20.4	26.9	14.9
Maharashtra	32.0	31.2	15.2
Rajasthan	23.0	20.0	21.3
Northern region			
Himachal Pradesh	39.6	29.4	39.7
Ladakh	NA	NA	NA
Uttar Pradesh	25.8	24.0	42.6#
Uttarakhand	39.1	30.0	47.8#
Southern region			
Andaman & Nicobar Islands	23.2	-	14.4
Andhra Pradesh	32.4	28.9	26.4
Karnataka	28.8	21.0	19.0
Kerala	37.0	25.9	23.1
Lakshadweep	7.4	-	4.5
Tamil Nadu	49.0	41.6	37.8#
Telangana	36.2	33.7	30.7
North-eastern region			
Arunachal Pradesh	29.7	-	32.3
Assam	18.7	20.6	24.3
Manipur	33.7	64.9*	23.5
Meghalaya	25.8	142.7*	23.5
Mizoram	25.7	132.5*	25.9
Nagaland	18.7	-	19.0
Sikkim	53.9	36.5	34.4
Tripura	19.2	17.4	14.0
Total	26.3	23.0	17.2

Notes: *The proportion of SC population is very small; #The proportion of ST population is very small.

Source: MHRD 2019.

Table A.5.2: State-wise average number of elementary schools per 1,000 children aged 6–13 in ST districts, 2016–17

States/UTs/All India	Average number of schools per 1,000 children aged 6–13 in ST districts*
Eastern and central region	
Bihar	**
Chhattisgarh	11.7
Jharkhand	7.8
Madhya Pradesh	11.8
Odisha	11.9
West Bengal	9.2
Western region	
Dadra & Nagar Haveli	5.4
Daman & Diu	**
Goa	7.4
Gujarat	5.5
Maharashtra	8.3
Rajasthan	9.2
Northern region	
Himachal Pradesh	42.0
Jammu & Kashmir (including Ladakh)	16.8
Uttar Pradesh	7.7
Uttarakhand	**
Southern region	
Andaman & Nicobar Islands	12.3
Andhra Pradesh	10.7
Karnataka	7.6
Kerala	3.8
Lakshadweep	5.0
Tamil Nadu	**
Telangana	**
North-eastern region	
Arunachal Pradesh	15.4
Assam	14.6
Manipur	17.8
Meghalaya	17.4
Mizoram	16.9
Nagaland	8.5
Sikkim	17.9
Tripura	6.5
All India	11.8

Notes: *Districts with more than 10 per cent ST population; **No districts with more than 10 per cent ST population.

Source: U-DISE, Elementary District Report card 2016-17.

C H A P T E R

6

Health and Nutrition

Health and Nutrition

The promotion of health care and healthy people in a society helps establish and sustain a just and equitable socio-economic order. Good health is thus the sine qua non of human development.¹ Seen historically, good health among the larger masses in today's developed world has come about as a result of better standards of living and improved access to basic services like water, sanitation, housing, and the environment. In the health sector, it is imperative to take direct policy initiatives to improve the socio-economic and health status of the STs for attaining overall higher levels of human development.

The ST populations in India are amongst the poorest and most marginalised sections of the society. Their (indifferent) health status partly points towards the limited ability of the health system to safeguard their human, social, economic, and political capabilities, each of which is fundamental to human development. Yet, there are relatively few systematic accounts of the health status of the ST people that could provide a roadmap for improving their health status. It is thus imperative to develop a roadmap for improving their access to health facilities and expanding the content and quality of health services, independent of the pace of the ST people's integration into the mainstream of the society.

The Government of India (GoI) had set up a high-power committee to examine the state of health among the ST groups, and the concomitant report was released in 2018 (GoI 2018). This report

states that the health-related challenges for the ST communities are likely to be different from those for non-ST/communities since STs dwell in a different physical environment, are isolated, consume different food (which is often of poorer nutritional quality), and exhibit values and behaviour patterns that are different from other social groups.

The following two questions were raised in the committee's report:

1. After seven decades of Independence, do the ST people suffer from unequal access to health facilities and do they have unequal health status as compared to their non-ST counterparts?
2. How can the gap between the health status of the STs and non-STs be bridged as quickly as possible?

In line with these broad objectives objectives, this chapter examines the health status of the STs as seen through a human development lens. It also attempts to address the following questions.

1. What are the trends in health outcome indicators and health coverage indicators, and the extant inequalities therein?
2. What are the social determinants of health risks and behaviours?
3. How effective are health systems in addressing the health problems of the ST populations?
4. What are the policy options that emerge from Questions 1-3 above?

The data deployed here are from different national sources: The National Family Health Surveys (NFHS,

¹ A flu epidemic a hundred years back through 1918-20 claimed the lives of more than 70 million people globally (an estimated 17-18 million in undivided India) and brought down the economies of many countries by more than 50 per cent for short periods. Thus, health and economy are closely linked. See Garret (2007).

different rounds), the National Sample Survey (NSS, different rounds), and the Ministry of Health, Government of India. Additionally, a few primary studies have been drawn upon.

6.1 Key Health Outcome Indicators

There are several important aspects of health: infant/child health, women's health, maternal mortality, morbidity due to malnutrition, and early deaths, among others. However, data on most of them are relatively scant, which prevents the analysis that they merit. This section attempts to cover key indicators derived on the basis of the available data.

6.1.1 Neonatal, Infant and Childhood Mortality

The Neonatal Mortality Rate (NMR) is defined as the number of children dying before the first 28 days after birth per 1,000 live births. This measure is critical for health policy as it underscores the factors affecting pregnancy, delivery and the neonate, and the adequacy of services during the prenatal, intra-partum, and neonatal periods. The NMR was 28.8 amongst the STs in 2019-20 (down from about 40 in 2005-06), while the corresponding figures were 29.2 for the SCs, 24.3 for the OBCs, and about 19.5 for 'Others', as in 2019-20. These figures represent an all-round improvement over the decade for all social groups (Table 6.1, rows 1 and 4).

The Infant Mortality Rate (IMR) is defined as the number of children dying before their first birthday per 1,000 live births. The IMR for the ST populations was 41.6 as in 2019-21 (Table 6.1, rows 2 and 5). This number fell from 62.1 infant deaths per 1,000 live births in 2004-05. The IMR was 40.7 among the SCs, 34.1 among the OBCs, and 28 among 'Others'. There was an overall reduction in the IMR from 57 to 35.2. This health indicator too has improved for all the social groups, though an inter-social group gap persists.

The Under-five years mortality rate (U5MR) is defined as the number of children dying before attaining the age of five years per 1,000 live births. Among the ST groups, the figure was 95.7 in 2005-06, which fell to 50.3 in 2019-21 (Table 6.1, rows 3 and 6). The U5MR was about 48.9 among the SCs, about 40.5 among the OBCs, and about 32.8 among 'Others'. There has been significant progress on the U5MR among the ST groups (with about 45 percentage-point reduction) as compared to a more modest decrease among the other social groups.

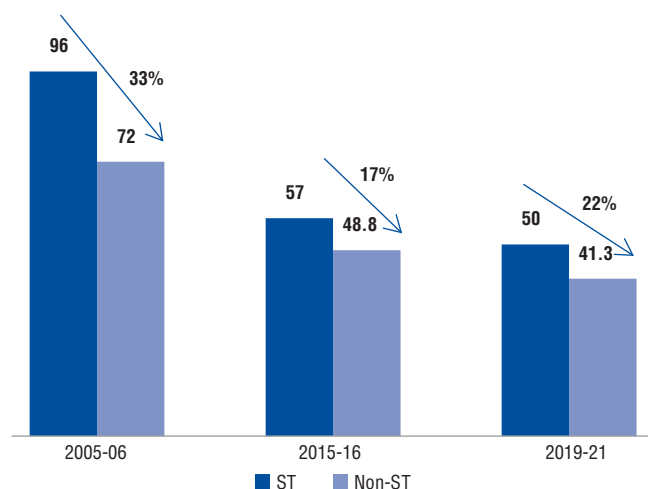
Figure 6.1 shows that the gap between the IMR among ST groups and non-ST was 11% points in 2005-06, which increased to 20%-point in 2019-21.

Table 6.1: Infant and child mortality by social category, 2005-06, 2015-16, and 2019-21 all India

Year	Indicators	STs	Non-STs			All
			SCs	OBCs	Others	
2005-06	NMR	39.9	46.3	38.3	34.5	39.0
	IMR	62.1	66.4	56.6	48.9	57.0
	U5MR	95.7	88.1	72.8	59.2	74.0
2015-16	NMR	31.3	33.0	30.5	23.2	29.5
	IMR	45.2	44.4	42.1	32.1	40.7
	U5MR	57.2	55.9	50.8	38.5	49.7
2019-21	NMR	28.8	29.2	24.3	19.5	24.9
	IMR	41.6	40.7	34.1	28.0	35.2
	U5MR	50.3	48.9	40.5	32.8	41.9

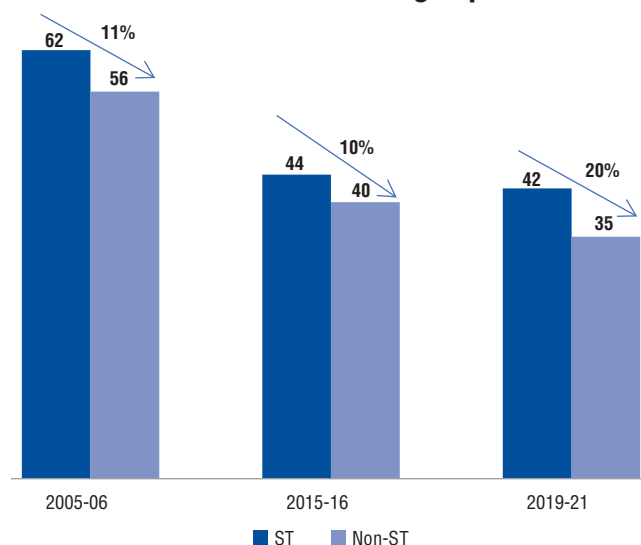
Source: Calculated from unit record data NFHS 3, NFHS 4 and NHFS 5

Figure 6.1: Comparison of IMR in ST groups and non-ST/SC/OBC groups



Source: Calculated from unit record data: NFHS 3, NFHS 4 and NFHS 5.

Figure 6.2: Comparison of U5MR among ST groups and non-ST/SC/OBC groups



Note: Others include the non-STs/SCs/OBCs.

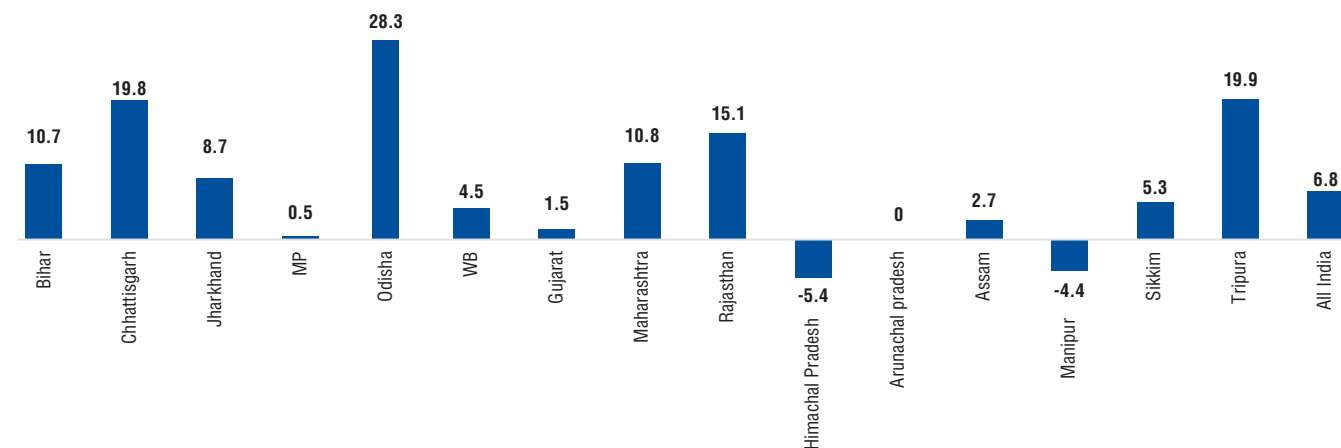
Source: Calculated from unit record data: NFHS 3, NFHS 4, and NFHS 5.

In the U5MR as well, there was an decrease in the gap between the non-STs, from 33per cent point in 2005-06 to 22 per cent in 2019-21 (Figure 6.2).

The sustained difference in both the IMR and U5MR between the STs and non-ST is evidence of the persistent problems in extending healthcare to the ST groups, and this gap requires urgent attention.

The ST populations are unevenly scattered across several States. The ten States in mainland India where ST groups dwell in relatively large numbers include Jharkhand, Bihar, Odisha, West Bengal, Chhattisgarh, Madhya Pradesh, Maharashtra, Gujarat, Rajasthan, and Himachal Pradesh. In addition, there are eight smaller States in the Northeast which have large proportions of ST populations. Figure 6.3

Figure 6.3: Difference between the IMR values for STs and non-STs, select states, 2019-21



Note: Only IMR data have been plotted since the other indicators show a very similar ratio.

Source: Calculations made from NFHS 5.

provides the data on the *difference* between the IMR values for children of the ST and non-ST communities for select States.

At least four observations emerge from these four figures, as follows:

1. There is a high association between the three measures of child mortality, that is, the NMR, IMR, and U5MR, implying that these child (ill) health indicators move in tandem with each other.
2. States in Central/Eastern India—Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha and West Bengal—show higher NMR, IMR, and U5MR values for the STs as compared to Gujarat, Himachal Pradesh, or the North-eastern States.
3. Some of the Central Indian States are also the ones that show poor indicators for the non-ST populations as well. They were the so-called BIMARU-plus States. Thus, there is a regional dimension to this problem: if the region develops, there is some impact on all sections of the society, and vice versa.
4. In part of the North-east (Arunachal Pradesh, Assam and Manipur), the gap between the child health status of ST populations and others seems small or minimal. Tripura is an outlier.

6.1.2 Child Health: Malnutrition among Children and Prevalence of Underweight Babies

The four outcome indicators of child health for 0-59 months of age commonly deployed are as follows:

5. *Stunting*: low height-to-age, caused by poor nutrition, repeated infection, and inadequate psychosocial stimulation.
6. *Wasting*: low weight-to-height, caused by low energy intake, nutrient losses due to infection, or a combination of low intake and high loss.
7. *Underweight*: low weight-to-age, caused by the body not getting sufficient nutrients to build healthy bones, skin, and hair; and
8. *Anaemic*: a condition in which red blood cells are

deficient in the haemoglobin.²

Table 6.2 presents data on these health indicators for the years 2005-06, 2015-16 and 2019-21. The following observations can be made on the basis of data emerging from this table:

1. There is a high incidence of stunting in all the groups (2019-21) – these figures are especially worrisome. Children from the ST groups fare even worse.
2. The incidence of wasting is seen to be in double digits in all the groups and years.
3. There is a high incidence of anaemia among the ST children, affecting both male and female children in all years under consideration. Worsening of the situation between 2016-17 and 2019-21 is particularly a cause of concern.
4. There seems little difference in the deficiencies between male and female children. In fact, ST girls are a little better off as compared to ST boys on some measures.
5. On all the four measures, the non-ST groups perform better both individually and collectively than the ST groups.
6. Between 2005-06 and 2019-21, there have been improvements in the figures for stunting or being underweight, but there is relatively little improvement in wasting, across all the groups.
7. Between 2005-06 and 2019-21, the rate of reduction in different deficiencies was higher among children from the ST groups, but this improvement was not sufficient to enable them to catch up with the others.

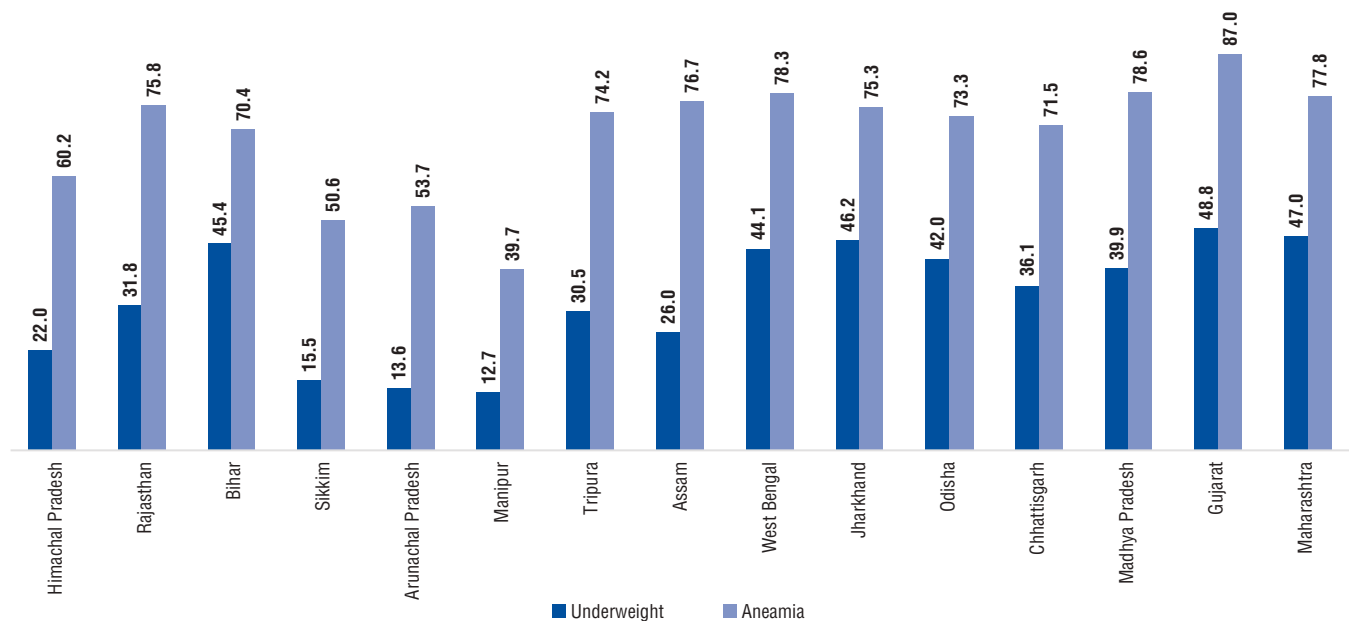
One of the causes of these health problems is nutrition. Next, unsafe water is an issue. Official figures place the proportion of rural people consuming safe water at 85 per cent, which still leaves out a significant section. Third, unsafe

2 References: See for definitions, https://www.unicef.org/infobycountry/stats_popup2.html; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4266864/>; People suffer from anaemia when their bodies do not get enough oxygen-rich blood, causing them to feel tired or weak, short of breath, dizzy, have headaches, etc., and among the reasons for its prevalence is malnutrition. Anaemia is particularly worrisome among children and expectant mothers since they require to be in good health to grow/reproduce.

Table 6.2: Malnutrition (per cent) among children aged 0-5 years by social category and sex, 2005-06, 2015-16 and 2019-21

Index	Sex	STs	Non-STs				All
			SCs	OBCs	Others	Total non-STs	
2005-06							
Stunting	Male	54.7	54.7	48.8	40.4	47.6	48.1
	Female	53.7	53.1	48.9	40.5	48.0	48.0
	Total	53.9	53.9	48.8	40.4	47.5	48.0
Underweight	Male	55.7	47.6	42.8	32.9	40.9	41.9
	Female	54.3	48.2	43.4	34.8	42.0	43.1
	Total	54.5	47.9	43.1	33.8	41.4	42.5
Wasting	Male	29.8	21.7	20.6	16.9	19.7	20.5
	Female	20.2	25.8	19.8	16.0	18.5	19.1
	Total	27.8	21	20.0	16.4	19.1	19.8
Anaemia	Male	75.0	71.9	70.1	63.2	68.4	69.0
	Female	77.3	72.9	70.5	64.5	69.3	69.9
	Total	76.1	72.2	70.3	63.8	68.8	69.5
2015-16							
Stunting	Male	45.2	43.4	39.0	31.0	38.2	38.9
	Female	42.6	42.0	38.4	30.2	37.5	37.9
	Total	43.8	42.8	38.7	31.2	37.9	38.4
Underweight	Male	46.5	39.6	35.8	29.0	35.2	36.1
	Female	43.5	38.8	35.4	28.2	34.6	35.3
	Total	45.3	39.1	35.5	28.8	34.9	35.7
Wasting	Male	28.6	22.0	21.5	19.8	21.2	21.9
	Female	25.5	20.5	19.6	18.5	19.6	20.1
	Total	27.4	21.2	20.5	19.0	20.4	21.0
Anaemia	Male	64.1	60.2	58.4	55.1	58.2	58.4
	Female	63.4	61.3	58.9	54.2	58.5	58.7
	Total	63.3	60.6	58.6	54.4	58.3	58.5
2019-21							
Stunting	Male	42.0	39.9	35.6	30.1	35.6	36.2
	Female	38.4	38.8	34.4	28.0	34.3	34.6
	Total	40.9	39.2	34.8	30.1	35.0	34.5
Underweight	Male	41.4	35.8	32.2	26.5	32.0	32.9
	Female	37.4	34.2	30.7	24.5	30.5	31.2
	Total	39.5	35.1	31.2	27.0	31.2	32.1
Wasting	Male	23.9	20.5	19.8	17.1	19.5	20.0
	Female	22.2	18.5	18.2	16.5	18.0	18.5
	Total	23.2	19.7	18.9	17.5	18.7	19.3
Anaemia	Male	73.6	70.5	66.3	66.0	67.4	67.2
	Female	74.3	70.3	66.1	65.7	67.3	67.0
	Total	72.4	69.5	65.2	65.8	67.3	67.1

Source: NFHS 3, NFHS-4 and NFHS 5.

Figure 6.4: Underweight and anaemic children below 5 years, by States, for STs, select states 2019-21 (per cent)

Note: The correlation coefficient between underweight and anaemic is 0.85.

Source: NFHS 5.

sanitation is also an issue. At least six states—Assam, Bihar, Odisha, Madhya Pradesh, Telangana, Tripura, and West Bengal—are not yet free from open defecation (ODF). Further, ODF is not the only means of gauging the prevalence of safe sanitation since open drains and wastes lying on roadsides also cause diseases. Finally, there is a high association between the prevalence of stunted children, underweight children, and anaemic children, suggesting that these development-related health indicators and their underlying causes are linked.

Figure 6.4 presents data on select child health indicators (underweight, anaemic), State-wise for the ST groups, for select States with a notable presence of STs, as in 2019-21.

Underweight: There is a high prevalence of ST underweight children (aged < 5 years) in absolute terms in the states of the central region. The picture is somewhat different in Himachal Pradesh of the sub-Himalayan region and the states of the North-east, where there is a significantly low prevalence of underweight. However, the North-east is not uniformly better; Meghalaya is an outlier, with a larger proportion of children in the state being underweight.

Anaemia: In most central Indian states, there is a high prevalence of anaemia amongst the ST children. There are 11 states among the 15 in the table where the proportion exceeds 70 per cent. Only Himachal Pradesh, and three Northeast states of Sikkim, Manipur and Tripura are different. These numbers are disturbing as there has been an increase in children suffering from anaemia between 2015-16 and 2019-21 in most states.

Keeping in view the vast regional disparities in terms of health and also other development indicators, the NITI Aayog has identified 115 Aspirational Districts, that is, districts that are marked by relatively low socio-economic indicators. Many of these districts are located in the states of Assam, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Meghalaya, and Rajasthan, each of which scores low on health parameters, and is also home to a notable number of STs. Targeting the ST populations to beef up healthcare in these districts and states can be one of the important strategies to bridge gaps between the Aspirational and other districts.

Table 6.3: Prevalence of Low Birth Weight babies (per cent) by social category and gender, 2005-06, 2015-16 and 2019-21

Year	Indicators	STs	Non-STs				All
			SCs	OBCs	Others	Total non-STs	
2005-06	Male	21.9	23.8	20.5	18.3	20.2	20.3
	Female	22.7	23.4	22.3	23.6	23.0	23.0
	Total	22.3	23.7	21.3	20.7	21.5	21.5
2015-16	Male	19.4	17.9	16.6	16.0	16.9	17.1
	Female	21.7	20.4	18.8	18.2	19.1	19.4
	Total	20.5	19.1	17.7	17.2	17.9	18.2
2019-21	Male	17.6	18.4	16.6	16.0	17.0	17.0
	Female	20.0	20.8	19.1	18.8	19.6	19.6
	Total	18.8	19.5	17.8	17.3	18.2	18.2

Source: NFHS 3, NFHS 4 and NFHS 5.

6.2 Other Morbidity Patterns

6.2.1 Low Birthweight

Low birthweight (LBW) babies are generally born to very young/teenaged mothers; or they are part of a large family (through repeated pregnancies), and/or the mothers are poorly nourished.

Another problem is that of diseases/issues that the mothers suffer from, such as heart disease, hypertension, untreated colitis, drug addiction, alcohol abuse, smoking, environmental pollution, and insufficient prenatal care. Albeit there are other unidentified causes, like genetic dispensations.³

Table 6.3 shows the inter-social group differences in the prevalence of LBW children and temporal change in LBW children. The overall prevalence of low birthweight babies is in the range 17-19 per cent (2019-21), which is not very different from the averages in the ST community. It must also be noted that through the decade 2005-06 to 2019-21, there was a very slight reduction in LBW babies among both the ST and non-ST groups. While the prevalence of LBW babies among the ST groups is higher as compared to that among the other social groups,

the inter-group difference is not very high. It implies that most children are born alike, but in the first few months and years of their existence, the ST children become more stunted, or underweight, or start suffering from other issues. There is also a small gender difference: among both the ST and non-ST groups, there are more female low-weight babies as compared to male babies.

Across the states, a huge difference is seen between the mainland states and the North-eastern states on this count: the proportion of LBW babies is far less among the ST groups in the latter. Next, the gap between the STs and non-STs in LBW babies in the North-eastern states tilts *against* the non-STs. The possible reason for this is that the non-ST populations in the North-eastern states are largely migrant labourers from Bihar, Odisha, or Uttar Pradesh, and they are poorer as compared to the local populations.

6.2.2 Body Mass Index

The WHO defines Body Mass Index (BMI) as a person's weight (kg) divided by the square of the person's height in metres (kg/m²). The BMI represents an index of a person's thinness or fatness and indicates the risk of prevalence of several health issues. A chronically low BMI could

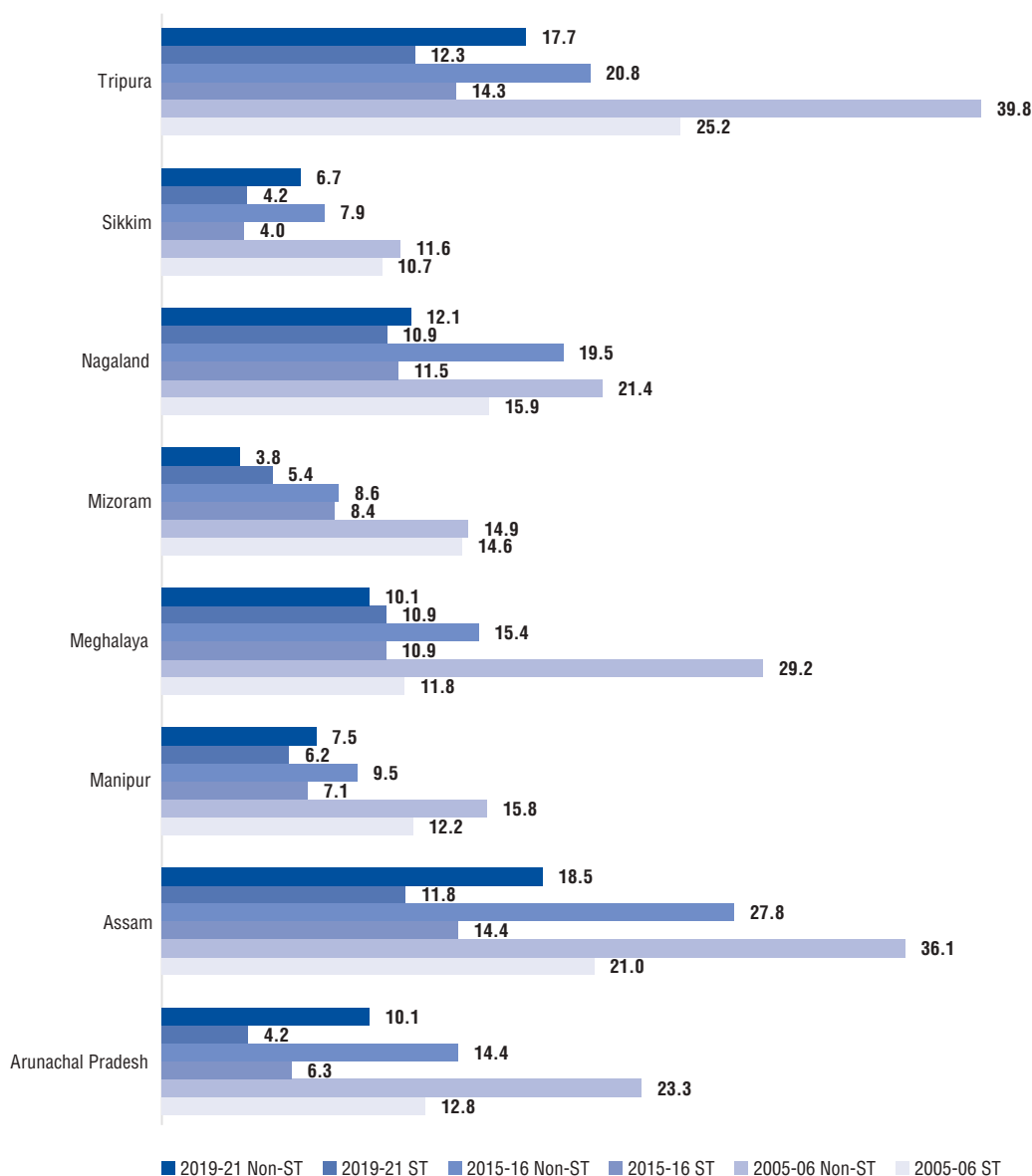
3 See <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5531572/>.

Table 6.4: Proportion of women (aged 15-49 years) and girls (15-18 years) having low BMI by social groups

Social category	15 to 49 years			15 to 19 years		
	2005-06	2015-16	2019-21	2005-06	2015-16	2019-21
ST	46.6	31.7	25.5	48.7	43.6	41.5
SC	41.1	25.3	20.2	48.6	44.8	40.6
OBC	35.7	22.9	18.8	48.4	44.4	40.5
Others	29.4	17.8	14.5	45.9	39.7	36.4
Total	35.6	22.9	18.7	47.4	43.5	39.9

Source: Calculations made from the NFHS 3, NFHS 4 and NFHS 5 databases.

Figure 6.5: Proportion of women aged 15-49 having low BMI, in the north-eastern states, 2005-06, 2015-16 and 2019-21



Source: Calculations made from the NFHS 3, NFHS 4 and NFHS 5 databases.

compromise the body's immune function, making the person vulnerable to respiratory diseases, digestive diseases, cancer, and/or osteoporosis. The safe range of this index is 18.5 (lower-end) to 25 (higher-end). The BMI is particularly important for ST women, as reproduction requires a lot of energy and strength, and also because these women engage in heavy physical work.

Table 6.4 presents data on women with low BMI by social groups, for 2005-06, 2015-16 and 2019-21, all India. Figure 6.5 shows the proportion of women aged 15-49 years with low BMI in the North-eastern states, in 2005-06, 2015-16 and 2019-21. The following facts emerged from the data in Table 6.4 and Figure 6.8:

1. About one-quarter of the women belonging to the ST groups aged 15-49 years had a BMI count below 18.5 as of 2019-21, which is about seven percentage points higher than the aggregate. There is a progressive reduction in women suffering from low BMI, as one moves from the STs to the SCs, then to OBCs and finally, to 'Others'.
2. Between 2005-06 and 2019-21, there was an improvement of about 21 percentage points in the BMI status of ST women, which is more than that seen in other social groups in both the age

groupings, that is, 15-59 years and 15-19 years.

3. The condition of younger girls (aged 15-19 years) seems precarious across all social groups: as in 2019-21, a large proportion of these girls (aggregate: 40 per cent; STs: 41.5 per cent) were found to be "thin" on the BMI scale. The temporal improvement seen in their BMI status has also been small.
4. There are differences within the North-eastern states: the ST women in Assam and Tripura show a high degree of BMI deficiency; at the other end, Sikkim shows the best results. Tripura has made notable progress while Meghalaya has shown hardly any progress.

Anaemia among adults: There is a higher prevalence of anaemia amongst the ST populations as compared to their non-ST counterparts. Some 64 per cent of the women from the ST groups in the age group of 15-49 years were anaemic in 2019-21 (Table 6.5). There was improvement in anaemia conditions for all groups and more significantly for STs between 2005-06 and 2015-16. However, in 2019-21 there was a deterioration (for women). However, ST women still lag behind women on this measure. In general, the extent of prevalence of anaemia among both men and women is seen to be very high in absolute terms.

Table 6.5: Prevalence of anaemia among men and women (aged 15-49),

Year	Indicators	ST	Non-ST				Total non-ST	All
			SC	OBC	Others			
2005-06	Male	69.1	57.8	55.4	51.4	54.5	55.7	
	Female	69.0	59.6	56.0	53.9	56.2	57.3	
	Total	69.0	58.6	55.6	52.4	55.2	56.4	
2015-16	Male	59.9	55.9	52.8	50.3	52.9	53.5	
	Female	61.0	56.7	53.0	50.2	53.2	54.0	
	Total	60.4	56.2	52.9	50.3	53.0	53.7	
2019-21	Male	NA	NA	NA	NA	NA	NA	
	Female	64.6	59.2	54.7	56.4	56.0	56.9	
	Total	NA	NA	NA	NA	NA	NA	

Source: Calculations made from the NFHS 3, NFHS 4 and NFHS 5 databases.

Box 6.1 National Rural Livelihood Mission

This mission aims at creating efficient and effective institutional platforms of the rural poor, enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services. Since 2017, VO members under the Chhattisgarh Rural Livelihoods Mission have been supporting delivery of maternal and adolescent nutrition services to the last mile under BIHAN's Swabhimaan Programme. Through this programme, the Chhattisgarh Rural Livelihoods Mission has taken leadership to build capacities and awareness of its cadre on nutri-specific and nutri-sensitive food, nutrition, health, WASH and gender issues. In Bastar District, the collective action taken by didis, and their efforts to support food and nutrition security for women, helped the community sail through in the tough time of COVID. Focussed efforts in this domain over the past four years enabled women collectives to support their communities during the national and state level lockdowns, announced to contain spread of the Covid virus.

Source: https://aajeevika.gov.in/sites/default/files/nrlp_repository/COVID%20Compendium-high.pdf

6.2.3 Oral Health Problems among the STs

Oral health faces neglect since it is believed to be peripheral and localised. Yet, good oral health reduces the viral load and curtails disease progression. Excessive tobacco use takes a toll on oral health, causing diseases like diabetes, oral cancers, ulcerates, and hypertension (Virdis et al. 2010). Following are the findings based on select studies (Kumar et al. 2016; Bhasin 2004; Kumar et al. 2008; Khanna 2012; and Shaik et al. 2019):

1. The majority of subjects (over 75 per cent) had permanent plaque in their teeth, and dental caries were prevalent in the permanent dentition (for over 83 per cent) among the Bharia tribe in Patalkot (Madhya Pradesh), the Bhils in Rajasthan, the Juang tribe in Bansapal (north Odisha), and the Koyas and Lambada tribes of Telangana. The study populations were also characterised by a high prevalence of periodontal diseases. In addition, pre-cancerous lesions and malignancy were found to be common among

different groups, which have their origins in high tobacco usage.

2. Among the Paniyan tribe people in Kerala, about 60 per cent (in the sample) perceived that, dental diseases could be serious if neglected and also believed that it is valuable to retain their natural teeth throughout their life. Yet around two-thirds of the same persons reported that they addressed dental issues only when they experienced excessive pain. Oral cancer is a major issue among the Paniyan tribe.
3. Oral cancers are the Number 1 cancers in India, and the STs are the most affected by it due to their widespread habits of tobacco chewing and smoking.

To conclude, one of the reasons for a higher disparity in child health/adult health indicators between the ST and non-ST groups in the mainland states seems to be the greater marginalisation and isolation of the STs. It is recommended that the NITI Aayog's programme of Aspirational Districts mentioned earlier, and also the National Health Mission, could have special programmes for improving the health conditions of the ST communities. The National Health Mission (NHM) has the explicit objective of reaching out to the STs, which needs to be taken further (see Ravi et al. 2016).⁴

6.3 Issues in the Health of the STs

6.3.1 General Health Issues⁵

The lifestyles of different ST groups have evolved uniquely in conjunction with their race, language, culture, and beliefs, which have shaped their health-seeking behaviour (Balgir 2006; Balgir 2011; Ghosh and Malik 2009; Sachdev 2012). Thus, the health perception and health-seeking behaviour are, to an extent, defined by their habitat, to which the terrain and ecology also contribute. To complicate matters, the health, nutrition, and medico-genetic problems of diverse ST groups have been found to be unique across every few miles, posing challenges

⁴ See <https://www.manifestias.com/2019/02/05/migrant-issues-of-north-east-an-historical-perspective/>; Also see NHM statement, p. 21, at <https://nhm.gov.in/index4.php?lang=1&level=0&linkid=445&lid=38>

⁵ For survey-based evidence on different kinds of illnesses, see Raushan and Acharya (2019).

of outreach. There is thus no simple pathway to change, and efforts will be required to devise a way to introduce modern medical methods into the local milieu.

The average longevity in India is estimated at 67 years, while the longevity amongst the ST groups is estimated at 63.9 years (Gol 2018). Illness is among the reasons for the gap. There are numerous studies which find that malaria, tuberculosis, influenza, gastric problems, venereal diseases, ailments emerging from addiction to opium and tobacco, and anaemia are common in the central Indian states (Mishra 2012; Verma and Shah 2014; Meena 2014). The diet patterns of tribes in central India and in much of mainland India are often grossly deficient in calcium, Vitamin A, Vitamin C, riboflavin, and animal protein, and these deficiencies cause many diseases (Jana 2004). In the North-east, lifestyle diseases such as diabetes, cardiovascular diseases, and cancers, in addition to mental health problems stemming from stress and substance abuse, have been prevalent.

Genetic disorders, especially sickle cell disease and G-6-PD, have been found to occur in various ST groups. Sickle cell disease has been found in 72 districts of central, western, and southern India and, to an extent, in eastern Madhya Pradesh, Maharashtra, Tamil Nadu, Odisha, and Assam. One estimate places the size of this G-6-PD-deficient ST population at about 1.3 million. Studies further find that the prevalence of these diseases is high among the ST groups (more than 15 per cent) in the hyperendemic malarial zones. A prevalence rate up to 40 per cent of sickle cell trait has been reported among some tribes, viz., the Adiyani, Irula, Paniyan, and Gond tribes (Deka 2011). Conditions such as haemoglobinopathies and thalassemia are pressing health challenges for the ST populations, particularly in the North-east, West Bengal, Odisha, the Andaman and Nicobar Islands, and Madhya Pradesh (Ghosh, Colah and Mukherjee 2015; Verma 1978).

A study on the Kondh tribes reveals that women put in an average of 14 working hours of physical labour daily as compared to nine hours put in by men (Negi and Singh 2018). Women clock in a lot of working hours even in their advanced stages of pregnancy in agriculture or in the collection of fuel and minor/other forest produce, which significantly depletes

their energy. As traditional herbs are becoming scarcer owing to deforestation, it makes the work of finding them more arduous. With limited access to modern medicines, ailments such as tuberculosis and stomach disorders have become perennial.

Nutritional anaemia is a major problem among women in the rural and tribal belts. In Kerala, the prevalence of anaemia was found to be 67.5 per cent among ST women, who chewed betel nut (Shrinivasa et al. 2014). The onset of anaemia leads to lower resistance to fatigue, an adverse impact on the working capacity of women, especially under conditions of stress, and heightened susceptibility to other diseases. Finally, maternal malnutrition is quite common among ST women who have had many closely spaced pregnancies. The diets of the STs are generally grossly deficient in calcium, Vitamin A, Vitamin C, Riboflavin and animal protein, worsening matters (Ramachandra et al. 2013; Ninama 2016; Rao et al. 2006; Laxmaiah et al. 2007; Basu 2000).⁶

The above ailments are mostly curable if effective and timely treatment is done, and diet and hygienic conditions are maintained; however, the ground situations are different.

6.3.2 Infectious Diseases

Most infectious diseases take root when the body is in a condition of ill-health owing to chronically unhygienic conditions and malnutrition. The following three diseases are rampant among the STs:

- **Malaria** continues to be a major health burden. Districts where large numbers of STs dwell, also have some 70 per cent of the dangerous malaria strain, Plasmodium Falciparum, and account for 47 per cent of the total malarial deaths in the country (Sharma et al. 2015; Sharma, Dev and Phukan 2015).
- **Tuberculosis:** The prevalence of tuberculosis (TB) is significantly higher among the ST populations

⁶ Maternal undernutrition is defined as having a body mass index of <18.5. Women who are undernourished at the time of conception are unlikely to improve their nutritional status during pregnancy, when they have additional demands due to the growing foetus. See, <https://www.google.com/search?client=firefox-b-d&q=maternal+malnutrition+meaning>.

compared to their non-ST counterparts: 703 cases per 100,000 population as compared to the national average of 256 per 100,000 population (Thomas et al. 2015; MoHFW 2013). The Saharia, an ST group in Madhya Pradesh, is particularly vulnerable to TB, with a high prevalence of 1,518 per 100,000 population, as seen from a survey conducted in the second decade of this millennium (Rao et al. 2015).

- *Leprosy* is also an alarming health issue among the ST populations. In 2016-17, the proportion of new leprosy cases among the ST populations was found to be 18.8 per cent of the total leprosy cases in the country as against their population, which is about 8-9 per cent of the total population.⁷

6.3.3 Non-communicable Diseases

NSS data from the 52nd Round (1995) and 71st Round (2014) have indicated an increasing trend of cardiovascular diseases (CVD) of almost eight-fold and other non-communicable diseases (NCDs) through 1995-2014. The growing incidence of CVDs and NCDs, especially among the elderly, has been reported from Kerala, Tamil Nadu, Punjab, and West Bengal. Far-reaching changes in various aspects in the life of the ST people away from their traditional ways might have made them more prone towards these lifestyle disorders.

However, there are also positive aspects as well on the health front, like a great deal of indigenous knowledge that the STs possess. The government has taken steps to preserve and promote the knowledge and health practices of the traditional healers.

6.4 Health Supply and Extent of Seeking Health Services

Successive Indian governments have enhanced public health facilities across the country since Independence. There is also a large private sector presence. Are they adequate and evenly spread,

are they accessible and inexpensive, and are they efficient? Evidently, there are gaps, as many of the indicators in the previous section of this chapter show. This section examines the *health supply* in the context of ST populations' availing of modern health practices.

The decade from 2004 to 2014 and the later period saw significant policy initiatives in the Indian health care sector. Among the important programmes launched was the National Rural Health Mission, which was later changed to the National Health Mission. The main emphases in NHM are on reproductive, maternal, new-born, child, and adolescent health, in addition to the launching of several publicly funded health insurance schemes. The NHM is also expected to improve the health infrastructure. NHM is a general health programme, serving both the STs and non-STs alike.

From a human development lens, three aspects are reviewed here:

1. What state facilities are in place aimed at reaching health services to the ST populations?
2. To what extent do ST people avail of these services?
3. What is the cost of health and what are the options of insurance coverage?

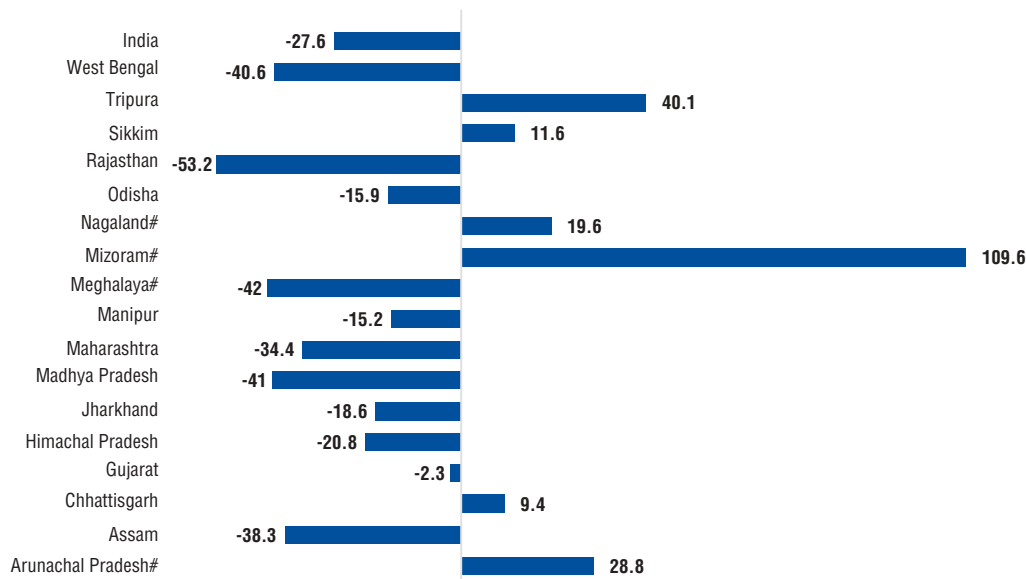
6.4.1 State Facilities

The public health structure is a five-tier system comprising sub-centres [lowest – having a health worker (for the preventive component of health) and auxiliary nurse-midwife (ANM for reproductive health), covering a population of 3,000-5,000]; primary health centres (PHCs—this is the level at which doctors are appointed and covers a population of 30,000); community health centres; district hospitals; and higher-level medical facilities (including medical colleges). Most rural facilities are highly subsidised. *Health sub-centres and PHCs are central in providing services to the far-flung villages.*

The all-India deficit in the number of health sub-centres in accordance with the laid-down norms was 15-20 per cent as of 2021.⁸ Seen state-wise, Figure

7 National Leprosy Eradication Programme, *Annual Report, 2016-2017*. See [https://pdf4pro.com/view/nlep-annual-report-2016-2017-5691c2.html#:~:text=A%20total%20of%201%2C35%2C485,a%20Prevalence%20Rate%20\(PR](https://pdf4pro.com/view/nlep-annual-report-2016-2017-5691c2.html#:~:text=A%20total%20of%201%2C35%2C485,a%20Prevalence%20Rate%20(PR)

8 See <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx>.

Figure 6.6: Excess/shortfall in health sub-centres—select states (per cent), March 2022

Source: Source: Rural Health Statistics 2021-22, Ministry of Health and Family Welfare, Government of India

6.6 shows health sub-centres in select nine central states and eight North-eastern states, all of which have significant ST populations. In the mainland states, there is a deficit in health sub-centres in as many as seven of the nine states: a major shortfall in the health system. Madhya Pradesh and Rajasthan have large deficits. In the North-east, there is a shortfall in three out of the eight states: Assam, Manipur, and Meghalaya. In contrast, Mizoram has a disproportionately larger number of sub-centres. If more centres than the norm are opened in some places, precious resources get locked up there. Since the overall budget is limited, other places suffering from a deficit also gets deprived. This shortage/excess, to an extent, breeds inefficiency, which shows up in the outcome indicators.

The deficit at the all-India level in the number of PHCs, according to the laid-down norms, is 20-25 per cent.⁹

Figure 6.7 shows a deficit in eleven out of the 17 States in terms of availability of sub-centres. Rajasthan, West Bengal, Meghalaya, Madhya Pradesh, and Assam have large deficits. In the North-east, there is a deficit in three States out of

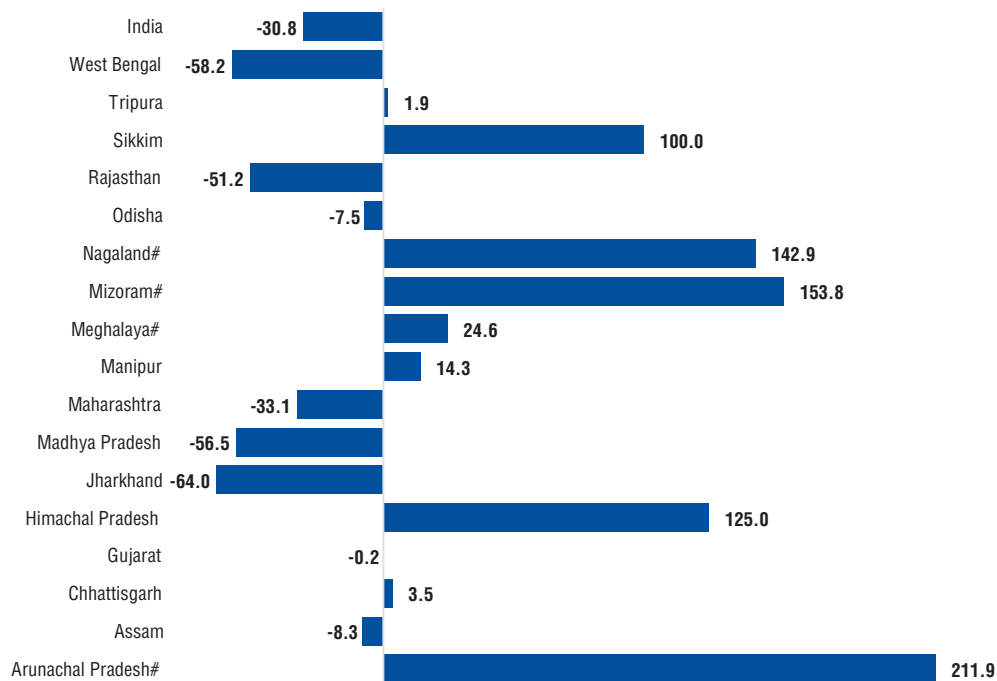
seven. Sub Centres represent the first point of call for health care *where there is a qualified doctor* to provide maternal, neonatal, and delivery services, in addition to treatment for other ailments. A shortfall in Sub Centres signifies a serious shortfall in medical services. STs can ill-afford private health services, and such a shortfall in primary health services thus can prove to be a serious deprivation for them. On the other hand, however, if more Sub Centres than those stipulated are opened in some places, precious resources get locked up there, depriving other locations.

Eight out of 17 selected states showing a shortfall of PHCs. The states showing higher deficits included Madhya Pradesh, West Bengal, Rajasthan and Jharkhand. All the north eastern states except Assam showing a surplus in terms of availability of PHCs.

Not having adequate numbers of facilities is only part of the problem. Another problem is not having adequate staff. The ANM health worker is the frontline professional responsible for overseeing all reproductive health-related activities at the local level, i.e., at health sub-centres and PHCs. As per the Indian perception, female health workers are believed to be more suited than male health workers

⁹ See <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx>.

Figure 6.7: Excess/shortfall in PHCs—select states (per cent), March, 2022



Source: National Health Management System (<https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx>).

to provide care at sub-centres as well as at PHCs since they can address both issues of maternal and child health, as well as general health. Figure 6.8 depicts the shortfall or excess of health workers at this position by broad zones.

Female workers in health sub-centres (in blue, Figure 6.8): At the zonal level there seemed to be no shortage of these workers as of 2022 except northern region.

Male workers in health sub-centres (in grey, Figure 6.8): Surprisingly, there is a shortfall of male workers in all the zones.

Female workers in PHCs (in orange, Figure 6.8): Except northern and southern region all other regions showing a surplus. The western and north-eastern region showing an excess of more than 50 percent.

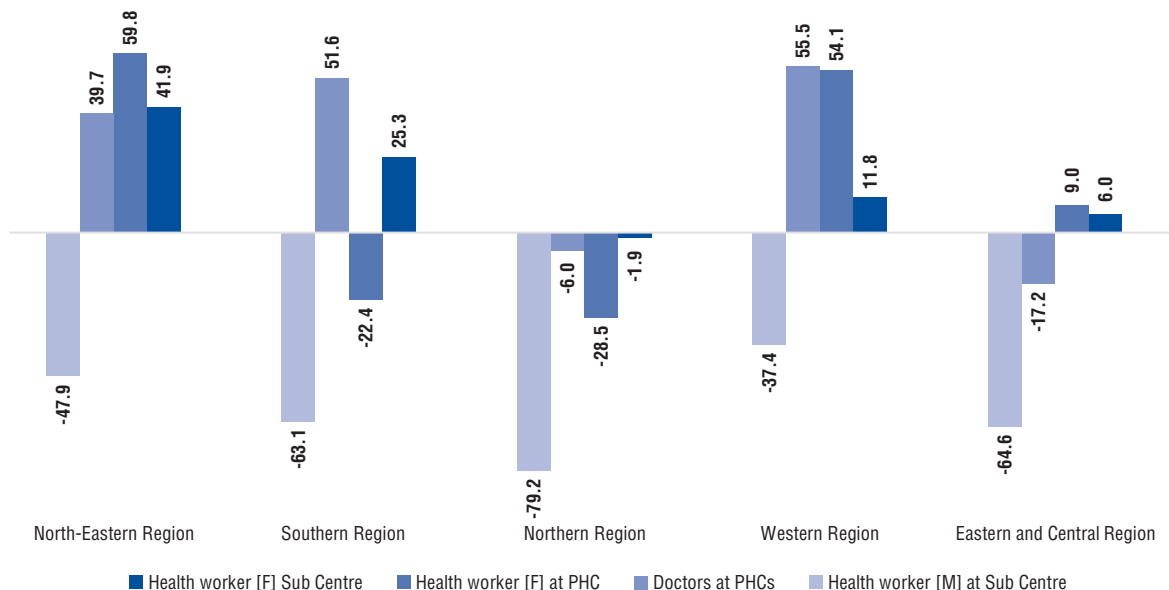
Doctors in PHCs (in yellow, Figure 6.8): Except eastern/central region and northern region all other regions showing a surplus. The shortfall seems to be very small.

A situation of uneven spread of facilities and understaffing does not instil confidence in the users (patients) of these health services. Many patients thus prefer to seek expensive but predictable private sector services rather than unpredictable public facilities.

What are the reasons for the infrastructure mismatch and under-/overstaffing at the health centres? For infrastructure, the obvious reasons are the lack of resources, changing demography, and poor planning. For staffing, the reasons are said to be the rigid system of appointments, bureaucratic delays in appointments, budgetary shortages exist (especially in the poorer states), and lack of infrastructure to locate officials in some states. For example, it is futile to appoint staff if there are no buildings to house the facilities.

This section highlights the need to strengthen the public health systems, especially in the eastern and central zones, which are also locations with large concentrations of ST populations. Next, the excess/

Figure 6.8: Shortfall/excess of health workers in sub-centres (female and male), health workers in PHCs (female), and shortfall/excess of doctors in PHCs, 2021-22



- Notes: 1. Eastern and central region: Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, West Bengal. Western region: Dadra & Nagar Haveli, Daman & Diu, Goa, Gujarat, Maharashtra and Rajasthan. Northern region: Himachal Pradesh, Jammu & Kashmir, Uttar Pradesh, Uttarakhand. Southern region: Andaman and Nicobar Islands, Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Telangana. North-eastern region: Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura.
2. F-HW-SC = female workers sub-centre; F-HW-PHC = female workers PHC; M-HW-SC = male workers sub-centre; and doctors are as the name suggests.

Source: National Health Management System (<https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx>).

deficit situation in staffing needs to be addressed to make health services more effectively available.¹⁰

6.4.2 Availing of Services

This section examines data on the effective utilisation of services, mainly for maternal and child health (MCH), but also for some other problems.

¹⁰ IHD's internal findings from select field studies in Jharkhand and Rajasthan in early 2020 suggest that sub-centres or PHCs have very few equipment, medicines, or qualified personnel. The actual health care is available only at Community Health Centres (CHCs), serving a population of around 80,000 to 120,000, where the authorities provide X-Ray machines, other diagnostic equipment, pathology laboratories, etc. Next, PHCs often get young doctors, joining service to get a short rural exposure (2-3 years) after obtaining their MBBS degrees, since this exposure opens the door for them to gain admission at the post-graduate level. Being fresh from college, they lack the expertise required at this level. In the sub-centres, the only technically qualified person is the ANM, and her absence leaves the centre without any staff. The ANMs are recruited from the vicinity, which has the advantage that they are present locally, but also the disadvantage that they are frequently absent from work.

Table 6.6 shows that in 2019-20, about 82.3 per cent of the women from the ST community delivered babies in health facilities as compared to about 89.5 percent from the non-ST communities during the five years preceding the survey. There was a huge overall improvement over the decade and a half 2005-06 to 2019-21: in 2005-06, among STs, only about 18 per cent of the deliveries were carried out in health facilities, while among the non-STs/SCs/OBCs, this proportion was about 53 per cent.¹¹ The private sector dominates, implying that the public sector needs beefing up.

Finally, the state-wise figures (not presented here) indicate that as in 2019-20, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Uttar Pradesh, Himachal Pradesh, Arunachal Pradesh, Meghalaya, and Nagaland showed a lower than the national average figure of 83.2 per cent in institutional

¹¹ Ravi et al. (2016) reaches a similar conclusion using a different data set.

Table 6.6: Percentage distribution of live births to women aged 15-49 in the five years preceding the survey by place of delivery and percentage delivered in a health facility, India, 2005-06, 2015-16 and 2019-21

		ST	SC	OBC	Other	Non-ST	Total
2005-06	Home	82	66.9	62.1	47	58.8	61
	Public Sector	11.9	19.3	16.2	21.7	18.6	18
	Private Sector	5.7	13.4	21	30.5	22	20.4
	NGO or Trust Hospital/Clinic	0.3	0.2	0.5	0.7	0.5	0.5
	Other	0.1	0.2	0.2	0.1	0.2	0.2
	Total	100	100	100	100	100	100
	Health Facility	17.8	32.9	37.7	52.9	41.1	38.8
2015-16	Home	31.7	21.3	20	15.9	19.4	20.8
	Public Sector	56	59.9	50.4	44.6	51.5	52
	Private Sector	11.7	18.1	28.9	38.6	28.4	26.4
	NGO or Trust Hospital/Clinic	0.4	0.4	0.5	0.7	0.5	0.5
	Other	0.2	0.3	0.2	0.3	0.2	0.2
	Total	100	100	100	100	100	100
	Health Facility	68.1	78.4	79.8	83.8	80.4	79
2019-21	Home	17.4	12.5	10.3	8.5	10.5	11.2
	Public sector	69.7	68.1	59.8	55.9	60.7	61.9
	Private sector	12.1	18.9	29.3	34.6	28.2	26.2
	NGO or trust hospital/clinic	0.4	0.3	0.4	0.6	0.4	0.4
	Other	0.3	0.2	0.2	0.3	0.2	0.2
	Total	100	100	100	100	100	100
	Health facility	82.3	87.3	89.5	91.2	89.5	88.6

deliveries. While the mainland states other than Himachal Pradesh are all relatively less developed, the presence of four of the eight North-eastern states in this list is a bit puzzling, keeping in view the fact that large parts of that region are relatively well-endowed in health care facilities, and the STs there are more educated than the STs in the mainland.

6.4.3 Antenatal and Postnatal Care

Antenatal Care (ANC) and Postnatal Care (PNC) are important components of reproductive health.

Lack of attention to them could result in dangers to both the mother and the unborn/new-born baby. Other than the human cost, there are demographic implications of it as well—more babies dying result in additional pregnancies, which adversely impact women's health. Table 6.7 shows that only about seven percent of the ST women *did not* make any visit to a medical facility as in 2019-21, a notable improvement over the earlier years. This figure matches favourably with the corresponding figures for Non-ST women. As for a recommended four visits, the ST women did not fall behind their Non-ST, as was seen in the earlier years.

Table 6.7: Percentage distribution of women aged 15-49 who had a live birth in 5-years preceding the survey by number of ANC visits, for the most recent live birth according to the residence, 2005-06, 2015-16 and 2019-21

		ST	SC	OBC	Others	Non-ST	Total
2005-06	None	29.7	25.8	25.8	14.6	22.4	23.0
	1-3 visit (s)	46.9	43.6	38.5	34.5	38.4	39.3
	4 and more visits	22.0	29.8	35.3	49.9	38.5	37.0
	Don't know	1.4	0.7	0.4	0.9	0.6	0.7
2015-16	None	19.7	17.9	17.7	11.3	16.2	16.5
	1-3 visit (s)	33.4	32.8	33.3	26.6	31.6	31.5
	4 and more visits	45.6	48.7	48.2	61.2	51.5	51.2
	Don't know	1.2	0.6	0.8	0.9	0.7	0.8
2019-21	None	7.3	6.7	6.1	5.0	6.0	6.1
	1-3 visit (s)	33.7	36.9	35.9	28.9	34.6	34.5
	4 and more visits	57.6	55.3	57.2	64.4	58.3	58.5
	Don't know	1.3	1.1	0.9	1.8	1.1	1.2

Sources: NFHS 3, NFHS 4 and NFHS 5

In terms of temporal comparison, there has been an all-round improvement. For example, the proportion of ST women making four visits to a health facility more than doubled from 22 per cent to 57.6 per cent through 2005-06 to 2019-21. Among the Non-ST women, the improvement was from 38.5 per cent to 58.3 per cent. This bridging of the gap between STs and Non-STs is encouraging though the numbers are still less than better off social groups (it is 64 per cent among 'Others').

As regards a baby's postnatal check, there has been a 10-percentage point increase through 2015-16 to 2019-21 (Figure 6.8). Also, there is little difference

across social classes on this count. In as many as 95+ per cent cases there was a medical official attending to the mothers/babies as in 2019-21 compared to some 75 percent in 2015-16 among the STs. This proportion is comparable with the aggregate and other social groups.

6.4.4 Immunisation of Babies

The all-India picture with regard to the immunisation of babies is not very encouraging among the ST and non-STs alike, with some 75-77 per cent of babies are immunised in any of the social groups (Table

Table 6.8: Among women aged 15-49 giving birth in the 5 years preceding the survey, percentage of postnatal check-ups and percentage of check-ups by medical personnel, India, 2015-16 and 2019-21

		STs	SCs	OBCs	Others	Non-STs	Total
2015-16	Baby postnatal check within 2 months	37.4	39.0	36.1	37.2	37.1	37.1
	Postnatal check-up by medical personnel	75.6	82.5	84.7	84.5	84.1	83.1
2019-21	Baby postnatal check within 2 months	47.6	46.3	46.2	44.5	45.8	45.9
	Postnatal check-up by medical personnel	95.7	95.4	96.2	96.9	96.2	96.1

Sources: NFHS 4 and NFHS 5

Table 6.9: Status of full immunisation (per cent) by social groups and gender of the children

Year	Indicators	ST	Non-ST				All
			SC	OBC	Others	Total non-ST	
2005-06	Male	31.2	42.7	42.5	54.9	46.5	45.1
	Female	31.3	36.4	38.4	52.5	42.4	41.3
	Total	31.3	40.7	40.7	53.8	44.6	43.4
2015-16	Male	55.5	63.1	62.5	62.7	62.6	62.1
	Female	56.2	63.3	61.2	64.7	62.3	61.9
	Total	55.8	63.2	61.9	64.5	62.4	62.0
2019-21	Male	76.5	78.3	77.5	76.2	77.4	77.3
	Female	76.8	75.5	77.0	75.8	76.3	76.4
	Total	76.7	77.0	77.3	75.9	76.9	76.9

Sources: NFHS 3, NFHS 4 and NFHS 5

6.9). One positive observation is that there is almost no gender discrimination on this count. Yet another positive feature is that there has been a rise of 45 percentage points in immunisation among the ST children as compared to a smaller 32percentage point rise among the Non-ST children over 2005-06.

There is a significant association between the proportion of ST children getting immunised and the proportion of non-ST children getting immunised across states (correlation: 0.60), suggesting a strong regional dimension to this issue.

As regards the North-east, despite relatively greater development of health infrastructure in this region, many of the states do not show progressive results on institutional childbirth, visits to health facilities for ANC/PNC, or child immunisation. To raise these proportions is a challenge.

6.4.5 Health Seeking

Table 6.10 presents data on the health-seeking behaviour for these ailments. For one, there has been a rise in seeking help in cases of illness, though STs are a little behind the other social groups in this context. These data also suggest that there is little difference between males and females in health seeking behaviour: STs as well as others. Finally, there is a difference in seeking help across different diseases: it is high in cases of diarrhoea and fever, and less in respiratory infections. It is probable that they either resort to their traditional systems or just neglect their health.

6.4.6 Visits to Hospitals

Figure 6.9 shows the frequency of use of different health facilities, both government and non-government (mainly private plus NGO/charity) by social groups for 2004 and 2017-18. As in 2017-18, a large majority of the STs (75 per cent) visited government hospitals when they needed to seek medical/health advice or treatment. This is even higher than the corresponding figure for 2004. The pattern of use of government facilities has risen among all social groups. It has been observed that STs use government facilities significantly more than the other social groups. Thus, efforts to privatise health care could adversely impact both the STs and the poor.

6.5 Finance: Costs and Insurance

6.5.1 Expenses

In India, over 70 per cent of the total expenditure on health is met through out-of-pocket means (Ravi et al. 2016). Keeping in view the trend towards increased privatisation of health services, access to health care among the poor and the STs could be increasingly adversely impacted.

NSS data for 2017-18 report that the average health expenditure incurred on health *per case of hospitalisation* in the 365 days before the survey was a little over Rs 14,000 by the ST groups, as compared to significantly higher amounts spent by the other groups (Table 6.11, column 2).

Table 6.10: Health-seeking (per cent) among children of 0-5 years by area or social group and gender, 2005-06, 2015-16 and 2019-21

Ailment	Indicators	STs	Non-STs				All
			SCs	OBCs	Others	Total non-STs	
2005-06							
Health seeking diarrhoea	Male	58.5	62.3	58.3	67.7	61.7	61.3
	Female	52.3	59.9	53	64.9	58.1	57.5
Health seeking fever	Male	68.1	70	72.8	76.9	73.5	73
	Female	55	67.3	69.6	71.7	69.7	68.4
Health seeking ARI	Male	63.7	75.2	69.8	75	72.7	72
	Female	55.6	71.3	66.3	68.2	68.2	67
2015-16							
Health seeking diarrhoea	Male	66.0	70.3	68.8	71.8	69.8	69.5
	Female	63.0	66.7	65.7	69.1	66.7	66.1
Health seeking fever	Male	65.3	75.6	74.4	76.5	75.2	74.4
	Female	68.8	73.5	72.1	74.1	72.9	72.4
Health seeking ARI (Acute Respiratory Infection)	Male	73.8	79.4	81.1	82.5	81.0	80.4
	Female	66.7	77.6	75.1	78.1	76.4	75.2
2019-21							
Health seeking diarrhoea	Male	69.2	76.6	76.4	78.5	76.9	75.3
	Female	67.9	73.6	77.3	75.7	75.9	74.2
Health seeking fever	Male	70.8	80.0	81.4	81.5	81.0	79.1
	Female	70.8	77.4	79.2	78.9	78.6	76.9
Health seeking ARI (Acute Respiratory Infection)	Male	58.7	56.2	60.4	59.6	59.0	59.0
	Female	55.9	60.3	56.6	54.0	57.2	56.9

Source: NFHS 3, NFHS 4 and NFHS 5.

Next, the out-of-pocket expenses were recorded at 75 per cent of the total health expenses among the STs as compared to about 81 per cent among the non-STs (Table 6.11, column 3). The non-availability of adequate services in public facilities and the trend towards privatisation of health services makes health care more expensive, which hurts STs the most.

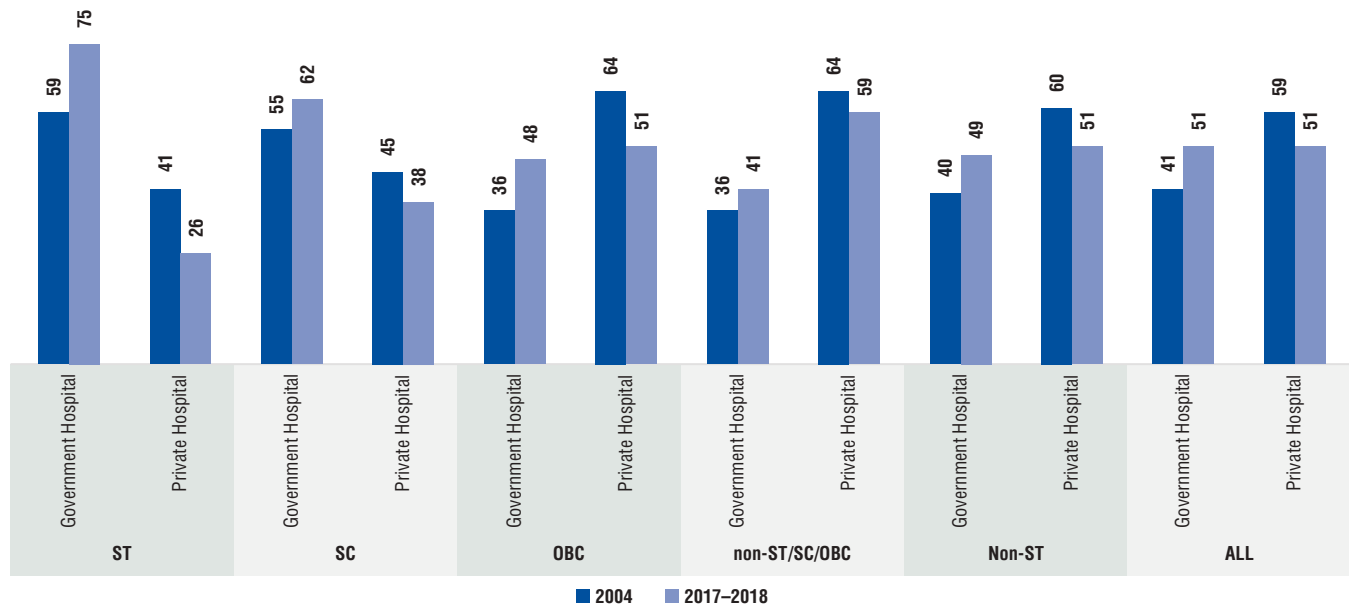
6.5.2 Health Insurance

NSS data for 2017-2018 suggest that the proportions of persons insured for health at the all-India level

were 19 percent for STs and 13-15 per cent for the different non-ST groups. The all-India average was a little over 15 per cent. To an extent, the higher coverage of STs as compared to the non-STs is heartening, but in absolute terms, the proportions of people covered by health insurance are too small to justify any rejoicing (Table 6.12).

Next, there is a large difference in insurance coverage of the STs (as well as the non-STs) across the states. The proportion of people covered was *nil* in Jharkhand, while it was ~80 per cent in Mizoram.

Figure 6.9: Hospitalisation by hospital type and social groups (per cent)



Note: Private includes NGO and charity-run facilities.

Sources: NSS 60th and 75th Rounds 2004 and 2017-18.

Table 6.11: Average health and out-of-pocket expenditure for treatment during a stay at the hospital per case of hospitalisation in the last 365 days (in Rs.): NSS 75th Round (2017-18)

Category	Health expenditure (In Rs.)	Percentage of out-of-pocket expenses
ST	14,357	75.4
SC	17,915	82.0
OBC	20,014	83.4
Others	28,834	78.5
Non-ST	22,531	81.1
All	22,046	80.9

Source: NSS 75th Round, 2017-18.

Also, barring the states of Chhattisgarh, Andhra Pradesh, Telangana, Mizoram, and Nagaland, the proportions of people covered by any insurance are very few elsewhere.

Table 6.12: Persons covered by any health insurance scheme (in per cent): 2014 and 2017-18

Category	Percentage covered by health scheme
2014	
ST	19.09
SC	13.94
OBC	15.52
Non-SC/ST/OBC	14.41
Non-ST	14.85
All	15.25
2017-18	
ST	21.65
SC	13.13
OBC	15.64
Non-SC/ST/OBC	15.02
Non-ST	14.92
All	15.53

Source: NSS 71st Round 2014; and NSS 75th Round 2017-18.

6.6 Conclusion and Policy Options

1. The health status of people in the ST communities is poorer as compared to that in other communities. This holds true for child health, women's health, adult health, and deficiencies and morbidity patterns.
2. In terms of health-seeking behaviour, STs depend on their traditional practices, many of which are not scientific when seen in today's context. This is not to say that *all* their practices are unscientific: they have discovered some traditional medicines that work well.
3. In terms of government facilities, some locales have shortages of facilities/personnel while others have surpluses, resulting in less-than-optimal use of resources.
4. There is only a weak association between the availability of facilities (and personnel) and their effective use.
5. There is a high level of dependence on government facilities among the STs, pointing towards the need for scaling these up.
6. The formal health insurance system has not penetrated in the interiors and/or lower-income groups. The main reason for this is a disjoint between the (high) premiums that private insurance schemes charge and the low paying capacities of people.
7. Government schemes are affordable (some States even offer them free of cost). However, many of them are inefficient and riddled with bureaucratic delays.

6.7 Policy Options

The GoI (2018) Report *Tribal Health in India*, makes detailed recommendations for revamping the health system in order to improve the health status of the STs. This section presents recommendations for improving the health of the ST communities as seen from the human development perspective.

6.7.1 Pre-requisite: Inclusive Development and Holistic Policies

A policy to improve the health of the STs necessitates the integration of health within the

overall approach of poverty alleviation, raising the literacy and education levels, extending employment avenues, modernising agriculture, improving water and sanitation, and improving the status of women.

"One size does not fit all": there is need for flexibility across regions and peoples. NGOs such as the Society for Education, and Action and Research in Community Health (SEARCH) in Maharashtra have much to offer in terms of location-specific models and also for integrating health with development. A possible way forward is to strengthen the administrative structure by including ST communities as recipients of services and participants in planning and dispensation.

It is equally important to raise the rural health budget, commensurate with the needs of the residents. As far as possible, efforts should be made to provide health services to the users without them having to pay for the services. In this context, the recommendations of the High-Level Expert Group Report of 2011 and the National Health Policy of 2017 call for attention.

Finally, a public-private partnership with the costs borne by the government is an option (through a broader insurance scheme—as in the case of CGHS).

6.7.2 On Primary Health

Health sub-centres and PHCs constitute the nerve centre of rural health care. Thus, up to 70 per cent of the health budget in ST areas should be allocated to primary care. It is also proposed to exercise flexibility, taking into account issues like public needs and migration status, among other things. The following three-layer structure is needed for improving the primary health structure:

1. Trained local ST youth volunteers (Arogya Mitras), trained *dais*, and Accredited Social Health Activists (ASHAs) lead the health team. At the base of the pyramid is the Gram Sabha, which decides the annual health priorities. A massive health literacy drive bridges the knowledge gap. All operators are IT-enabled.
2. There should be a larger number of health sub-centres in the country, that is, one sub-centre per population of 2,000-3,000.

3. One PHC should be established for about 10 sub-centres, and each PHC should be staffed by trained doctor(s) and a dentist. PHCs should also be equipped with mobile van facilities. This is in addition to the transport facilities for ANMs and other para-medical staff for routine work.

6.7.3 Reaching Out

Under special schemes, members of the ST communities should be issued such cards in the same manner as health insurance companies do to their clients. These should be digitised.

In order to meet the cost of health care, the maximum number of people from the ST communities should be provided with an insurance cover. An effective long-term approach is required to provide an insurance cover to all children and mothers who come to health facilities for delivery and/or MCH check-ups.

Sub-centres and PHCs should have sufficient stocks of medicines all the time, especially medicines that are to be distributed free of cost.

6.7.4 Health Education

The ST youth should be trained as ASHA workers, paramedics, and birth attendants, among other such roles, which would then make them Arogya Mitras. The report also puts forth a case for co-opting the traditional healers. Trained doctors and traditional healers should also engage in a dialogue to understand each other's viewpoint.

There is need to establish new medical colleges and auxiliary health institutions in districts falling

under the PESA, exclusively institutions meant for ST students and for serving in tribal areas. The graduates should exclusively serve in the PESA areas for some 5-10 years. Also, medical education is not for health professionals alone. School education too could have courses on a few aspects of health, including some practical training.

6.7.5 Key Deficiencies/Diseases to Control on Priority

Child and maternal health practices require immediate attention. Following are the priorities flagged in the previous sections and also in the Gol (2018) report:

1. Reducing the prevalence of malnutrition.
2. Ensuring safe motherhood (institutional delivery; obstetric services; ANCs/PNCs; transport for mothers and children; accommodation while in the facility; and special care for PVTGs).
3. Offering food supplements to tackle for deficiencies of calcium, vitamins, and riboflavin, among others.
4. Providing family planning services based on a desired TFR.
5. Launching mission-type programmes to control malaria (especially falciparum malaria), TB (health nutrition, safe sanitation), nutritional anaemia (nutrition), and sexually transmitted diseases (health education, use of condoms).
6. Oral health.

Appendix Database

There is sparse data on the health of STs at a decentralised level, which necessitates more research in these areas. For example, the lack of data on MMR, in general, and by social groups, in particular, hampers the development of a comprehensive maternal health programme. Data should be collected and collated separately for the ST communities on key variables. There is also a need for a gender-specific break-up of all health data.

The Health Information Management System (HIMS) should become more like the Education Information Management System (EIMS) and District Information System on Education (DISE), to especially include issues related to the tribal areas and peoples. A dynamic open-access database on health would also be useful in informing the Gram Sabhas on key issues in health. Finally, each PHC must have facilities to both upload and download data.

C H A P T E R

7

Gender Equality

Gender Equality

This report has so far analysed women's status in terms of their attainments in health and education, and their roles in livelihoods in different chapters. These gendered outcomes in education and health, however, are also affected by gender relations in various spheres of society, such as the household, local economy, and polity. These gender relations include decision-making in key areas of the household. These could be, for example, women's say in the use of household and individual incomes; their role in political matters and in community life; and the prevalence of violence against women. In this chapter, we look at the position of ST women in terms of gender equality and interventions that are needed to move in the direction of gender equality.

The chapter starts by examining the Gender Equality Index (GEI) calculated for STs and comparing it with the all-India on the basis of 1991 data. This serves as the baseline for assessing changes in gender equality since then. In a similar vein, we point to the favourable sex ratio among STs, as compared to other social groups. We deal with differences in educational attainment and also explore the gender differences in workforce participation and the related wage gap. While ST women exhibit greater mobility than women from the other social groups, data from the National Family Health Surveys show a lower ST women's household decision-making power. The chapter then deals with ST women's political participation, gender norms and domestic and other forms of violence. The chapter ends by noting that ST women are also challenging these unequal gender norms.

7.1 The Gender Equality Index

As with the HDI, we start with a calculation of the Gender Equality Index (GEI) for STs and compare it with the all-India picture for the year 1991 (Table 7.1). This can serve as a baseline with which to compare the subsequent calculations of the GEI.

Table 7.1: Baseline Gender Equality Index (GEI), 1991

State	ST female as per cent of ST male	All females as per cent of all males
Andhra Pradesh	87.0	82.1
Assam	82.8	74.2
Bihar		48.7
Gujarat	83.5	72.4
Karnataka	77.2	79.1
Madhya Pradesh	81.6	65.7
Maharashtra	89.9	83.8
Odisha	67.0	61.3
Rajasthan	68.0	60.9
West Bengal	79.4	66.1
All India	80.2	69.1

Source: IHD calculations, Sarkar et al, 2006.

As expected, the GEI among STs, at 80.2 per cent, was higher than the corresponding all-India figure, at 69.1 per cent in 1991. Its three variables are: economic attainment as measured by the worker population ratio; health attainment, as measured by

life expectancy at age one year and infant mortality; and educational attainment, as measured by the literacy rate of those above the age of six years, and the intensity of formal education. All three variables are given equal weight in the calculation of the GEI. The high rate of the ST female workforce participation, compared to the all-India female workforce participation makes the ST GEI somewhat higher than that for all others. The high rate of ST female workforce participation does not say anything about the quality of that workforce participation. As was seen in Chapter 3, the proportion of ST women when compared to ST men is lower in regular wage employment and higher in casual wage employment. On the other hand, it should be noted that the gap between the female and male educational attainment is higher for STs than the corresponding all-India figure. This means that there is a less than proportionate participation of ST women in the modern sector of the economy when compared to ST men.

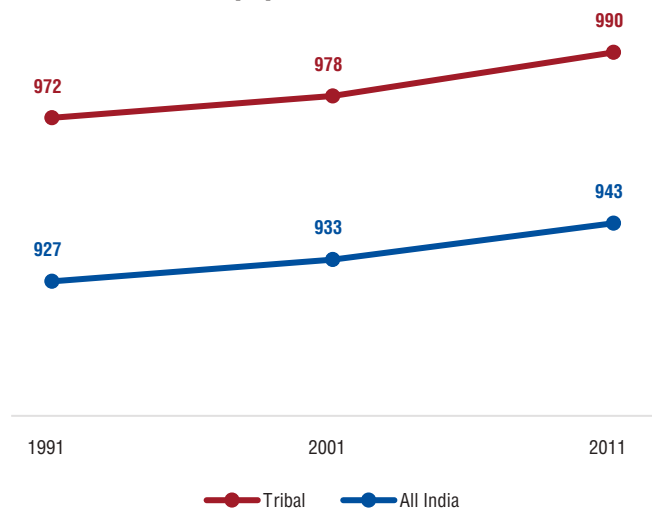
The above results of the GEI for 1991 can be taken as the baseline of lesser gender inequality among STs as compared to the country as a whole. It is from this relatively more equal position that we must note the changes, many of which are negative, and some are positive, as discussed below.

7.2 Sex Ratio

For the ST population, the demographic indicator of the sex ratio is higher than that for the all-India population (Figure 7.1). In the 2001 Census, the sex ratio of the ST population was 978 females per 1,000 males, compared to 933 females per 1,000 males for the national population. The ST sex ratio further increased to 990 females per 1,000 males in 2011, compared to a marginal increase to 943 females per 1,000 males for the entire population.

Better sex ratios among the ST communities in India could be considered a reflection of greater gender parity. However, the declining trend observed for the child sex ratio of the ST population (0 to 6 years) shows a deterioration in the position of ST females. In 2011, the child sex ratio for the national population deteriorated to 914 girls per 1,000 boys, from the earlier level of 919 girls per 1,000 boys in 2001. Exhibiting a similar trend, the child sex ratio for the ST population too declined from a high level

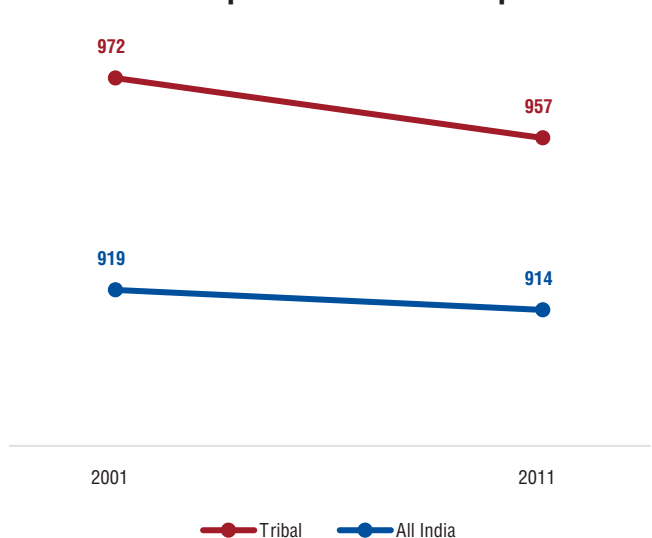
Figure 7.1: Sex ratio for the ST population and entire population



Source: Population Censuses, 1991, 2001, and 2011.

of 972 girls per 1,000 boys in 2001 to just 957 girls per 1,000 boys in 2011 (Figure 7.2). The child sex ratio for STs is higher at both points of time than the all-India average, but the sharper decline in the ST sex ratio is a concern which needs to be remedied urgently, as it indicates a deterioration in the position of females within the ST community.

Figure 7.2: Child Sex Ratio (0 to 6 Years) for The ST Population and Entire Population



Source: Population Censuses 2001 and 2011.

Table 7.2: Age Cohort-wise Gender Gap in Malnutrition and Anaemia among 0-to-59-month-old ST Children in 2019-21 (per cent)

Age group	Stunting			Wasting			Being Underweight			Anaemia		
	Boys	Girls	Gender gap	Boys	Girls	Gender gap	Boys	Girls	Gender gap	Boys	Girls	Gender gap
0 to 11 months	30.4	24.1	6.3	29.7	25.3	4.5	38.1	30.4	7.7	83.9	81.8	2.0
12 to 23 months	48.8	42.3	6.4	26.6	22.5	4.1	43.6	35.9	7.7	85.1	81.9	3.1
24 to 35 months	45.6	40.8	4.8	23.9	22.9	1.0	43.4	39.5	3.9	74.2	76.6	-2.4
36 to 47 months	46.0	45.0	1.1	21.3	19.2	2.1	42.6	41.3	1.3	68.5	70.1	-1.6
48 to 59 months	39.0	39.9	-0.9	18.3	21.5	-3.2	39.2	40.1	-0.9	62.0	65.3	-3.4

Note: First age group is 6-11 months for anaemia. The negative effects of the discrimination faced by the girl child carry on into early marriage and the resulting teenage pregnancy.

Source: NFHS 5.

7.3 Child Malnutrition

There is widespread malnutrition among children aged 0 to 5 years in India. In general, the prevalence of malnutrition and anaemia among boys and girls from the ST households is higher than that for any other social category. A disaggregation of the data by age cohorts of children (months), reveals that the incidences of stunting, being underweight, and anaemia among ST girls exceeds that among ST boys in certain age groups. This is specifically true for anaemia, the incidence of which is higher among ST girls than ST boys after the children attain 24 months of age (Table 7.2).

In 2019-21, the incidences of stunting, wasting, being underweight, and anaemia among ST boys generally exceeded those among ST girls. This implies that the biological advantage at the birth of the female infant over the male infant is seen in these data as well except in some cases, like anaemia in a few age cohorts. This indicates an unfavourable post-birth treatment of the female child in nutritional intake, which is necessary for her healthy development.

7.4 Child Marriage

Child marriage or marriage at below the legally permissible age adversely impacts the overall well-being of both boys and girls. It curtails their opportunities for continuing education and burdens them with familial responsibilities. In the case of girls, child marriage often results in teenage

pregnancy and the related detrimental consequences for the health and nutrition of both the mother and infant.

The 2011 Census data reveals those 5.1 million girls and 6.9 million boys in India got married before the legal age prevalent at that time. The NFHS data for 2005-06, 2015-16 and 2019-21 confirm that the rate of teenage pregnancy is the highest among ST girls. In 2005-06, the proportions of teenage pregnancy stood at 21.1 per cent for STs, followed by 19.8 per cent for SCs, and 16 per cent for OBCs (Table 7.3). There has been a secular decline in this, and in 2019-21, it came down to a single digit in all social groups. For ST girls, the percentage reduced from 21.1 per cent in 2005-06 to 8.7 in 2019-21, but it still exceeded the national average of 6.8 per cent.

Table 7.3: Teenage Pregnancy for 15 to 19-year-old women (per cent)

Social groups/All	2005-06	2015-16	2019-21
Scheduled Tribes	21.1	10.5	8.7
Scheduled Castes	19.8	8.8	7.3
Other Backward Castes	16.0	7.0	5.8
Others	11.9	7.5	7.0
India	16.0	7.9	6.8

Source: NFHS 3, NFHS 4 and NFHS 5.

Table 7.4: Gender-wise Educational Attainment at Different Levels of Education among the ST Population (2014)

Sector	Not literate/literate without formal education	Primary and below	Middle level	Secondary and above	Total
Male					
Rural	27.3	40.5	16.9	15.3	100.0
Urban	11.2	28.4	17.6	42.8	100.0
Total	25.4	39.1	17.0	18.6	100.0
Female					
Rural	45.3	33.6	11.6	9.5	100.0
Urban	24.3	27.9	14.6	33.2	100.0
Total	42.9	33.0	11.9	12.2	100.0

Source: NSS 71st Round, 2014.

7.5 Educational Attainment

Educational attainment is an important factor affecting access to employment and related livelihood opportunities. The industry now usually seeks to employ workers who have completed high school. As seen in Chapter 4, the educational attainment of STs is less than that of all other social groups. In addition, there is a gender gap between the educational attainment of ST women and men. This gap is less pronounced in urban areas and more in rural areas. Overall, 42.9 per cent of the ST women and 25.4 per cent of the ST men were not literate as in 2014. This disparity continued through all the educational categories, and at the secondary and above levels: almost 50 per cent more ST men than women attained secondary and higher levels of

education, with the figures pertaining to acquisition of secondary level of education being 18.6 per cent for men versus 12.2 per cent for women (see Table 7.4). A positive factor for gender equality is that as many as 33.3 per cent of the ST women in urban areas go on to acquire secondary and post-secondary level of education.

7.6 Economic Role

ST women have a higher labour force participation rate than women from other communities, but this participation is concentrated in low-productivity agriculture. Also, the gender gaps (male minus female) in the participation rates are the lowest in this community (Table 7.5). Traditionally, ST

Table 7.5: Labour Force Participation Rate (Per cent) for Women and Men by Usual Status (ps+ss) in 2011–12 and 2020–21

Social groups/all	2011–12			2020–21		
	Women	Men	Gender gap	Women	Men	Gender gap
Scheduled Tribes	35.1	56.1	21	39.6	58.6	19.0
Scheduled Castes	24.7	55.3	30.6	26.0	57.3	31.4
Other Backward Castes	22.1	55.1	33	24.6	56.4	31.8
Others	17.8	56.5	38.7	19.6	58.9	39.4
India	22.5	55.6	33.1	25.1	57.5	32.4

Source: NSS, Employment Survey 2011-12 and PLFS 2020-21.

Table 7.6: Sectoral Distribution of ST Workers by Gender: 2020-21

	ST men	ST women	Gender gap
Agriculture and allied work	57.0	66.5	9.5
Mining and quarrying	0.6	0.1	-0.6
Manufacturing	6.6	13.9	7.3
Electricity, gas, and water supply	0.6	0.1	-0.5
Construction	17.0	6.8	-10.1
Trade, hotel, and restaurants	6.6	3.1	-3.5
Transport, storage, and communication	4.9	2.2	-2.8
Finance, business, real estate, etc.	1.5	0.4	-1.2
Public administration, health, education, etc.	5.1	6.9	1.8
Total	100.0	100.0	

Source: PLFS 2020-21.

women have participated in various forms of non-domestic economic activities, including agriculture, and the gathering and sale of forest products. In 2020–21, there was a rise of about 4.5 percentage points in the labour force participation rates of ST women. The gender gap too reduced by about two percentage points.

Table 7.6 shows that of the total ST women workers, some 66.5 per cent were engaged in agriculture. In contrast, only 57 per cent ST male workers are engaged in agriculture. Seen proportionate to the total female and male workers, there are more women in manufacturing and more men in construction. Among the reasons why proportionately more men work in construction is that this activity entails migration (at low wages), for which the employers prefer male workers. It needs noting that even if women workers might earn less per day, there are other expenses like provision of living quarters, safety, creches, etc., which the employers find irksome and avoid hiring women workers.

In view of the greater participation of ST women in agriculture, where wages are lower than in construction or industry, there is a substantial gender gap in the wages earned. The average wage of ST men was found to be Rs 310 per day, while that for ST women was Rs 232 per day (Periodic Labour Force Surveys [PLFS], 2017–18), implying that, on an average, ST men earned about 33 per cent more than ST women.

In comparison to women of other social groups, a larger number of ST women are engaged in agriculture (80 per cent against 53 per cent for all other social groups), and a fewer number are engaged in the public administrative sector (8 per cent for ST women against 17 per cent for women of all other social groups, both sets of data according to PLFS, 2017–18). ST women have a higher labour force participation rate than women from other social groups.

7.7 Mobility

In keeping with the greater participation of ST women in the labour force, they are also more mobile than women from other social groups. In 2019–21, it was found that 56.3 per cent of the women from the ST families were able to visit markets on their own, 50.6 per cent were able to visit health care facilities on their own, and 50.5 per cent were able to visit places outside their village on their own. In all these forms of mobility, the ST women are at par with other social groups. However, some 4.7 per cent of the ST women were not allowed any mobility. This is about the same in all social groups.

7.8 Household Decision-making Power

Does the greater participation of ST women in the labour force translate into their greater autonomy in household decision-making? NFHS data allows us

Table 7.7: Percentage of Married Women (Aged 15 to 49 Years Old) Exercising Freedom of Mobility in 2019–21

Social groups/all	Market	Health facility	Places outside village/community	Not allowed to go to any of the three places at all
Scheduled Tribes	56.3	50.6	50.5	4.7
Scheduled Castes	57.6	53.0	51.9	4.7
Other Backward Castes	53.3	48.5	46.4	4.8
Others	60.8	56.2	54.8	4.4
India	56.4	51.6	50.0	4.7

Source: Calculated from NFHS 5.

to look at this question from different dimensions. An exploration of this aspect of women's status reveals that in relation to decisions pertaining to their own health care decisions and large household purchases, a marginally higher proportion of ST women, in comparison to women from the SC and OBC families, are able to exercise autonomy (Table 7.8). More generally, there is little of a difference between ST and other women with regard to this indicator.

Table 7.8: Percentage of married women (aged 15 to 49 years old) exercising autonomy in decision-making in 2019-21

Social groups/all	Own health care	Making large household purchases
Scheduled Tribes	82.2	79.8
Scheduled Castes	81.1	79.6
Other Backward Castes	80.3	79.2
Others	82.3	80.2
India	81.1	79.5

Source: Calculated from NFHS 5.

The higher economic involvement of women can bring about an improvement in the status of women in a family only if they are able to exercise autonomy with respect to savings and expenditure of monetary resources. Table 7.9 shows that in 2019–21, at an all-India level, 51.2 per cent of the currently married women had control over the usage of money. Across

all social groups, the proportion was lowest at 48.8 per cent for ST women though the gap across these groups is small.

Table 7.9: Percentage of currently married women (aged 15 to 49 years) exercising economic autonomy in 2019-21

Social groups/all	Have the money that they can decide how to use	Have a bank account that they use own	Sole decision-maker on cash earnings
Scheduled Tribes	48.8	75.0	14.3
Scheduled Castes	51.2	79.4	17.6
Other Backward Castes	49.9	79.9	17.3
Others	54.6	77.5	23.5
India	51.2	78.6	18.1

Source: Calculated from NFHS 5

There has been major change in access to bank accounts. Some 75.5 per cent of the ST women had access to a bank or saving account which they could operate on their own. Again, while the proportions of women enjoying autonomy of operating a bank account are the low among ST women compared to other social groups, the gap is small.

More importantly, despite the high levels of labour market participation among ST women, just 14.3 per cent of them claimed that they are sole decision-makers for the use of their cash earnings. This

proportion is lower than the national average of 18.1 per cent. What this would mean is that greater labour force participation by ST women does not translate into greater control of the use of income from their work.

Traditionally, even amongst the agriculturist tribes, women have had control over the use of their earnings as from the sale of non-timber forest products (NTFPs) and wage labour (see Archer 1974 for the historical situation among the Santhal tribes, and Kelkar and Nathan 2020 for the Mundari tribes). There is, of course, an expectation that ST women would use their earnings for the benefit of their marital families, with censure, even if they were denounced as witches for using their income for the benefit of their natal families. Within this kinship norm, however, women were found to have a measure of control over the use of their self-earned income. NHFS data, however, indicate that there ST women exercise very low control on their cash incomes. It appears that the norms related to household decision-making adversely affect women's economic empowerment. This is an important dimension of gender equality among the ST communities, in general.

We do not have NFHS or similar survey data for matrilineal tribes, such as the Khasi tribes of Meghalaya. However, what has been noticed is that non-agricultural economic activities, such as those yielding forest-based income, are not bound by the norms of matrilineal property control and inheritance (Nathan 2000). While the land or forest remained in women's names, the income from the sale of forest produce was treated as the self-earned income of men, who managed the harvest and sale of timber. As the share of non-agricultural incomes has grown, so too has the role of men in managing and utilising income. It should also be noted that even among the matrilineal Khasi tribes, while property remained in the name of women, the management of the property was the responsibility of men, that is, the brother or uncle of the woman. Over time, the role of men, even in the management of the agricultural property, has increased.

We now turn to the spheres of political and social relations, including those regarding political participation. The ST communities are known for having forms of participatory democracy where

the whole village assembly is involved in making decisions. This is different from electoral democracy, where elected officials make decisions on behalf of the community. How inclusive of women are forms of participatory democracy among various ST communities?

7.9 Political Inclusion

There are substantial differences in some spheres of gender relations as between matrilineal and patrilineal tribes. Property and land, in particular, are transmitted differently between these two groups of tribes. In matrilineal communities, such as the Khasi, Garo and Jaintia tribes of Meghalaya, the land is inherited in the female line, from the mother to the youngest daughter. In patrilineal tribes, such as those in the east and central Indian belt, the land is inherited in the male line. But there is one feature that is common to all these agriculturist tribes- the exclusion of women from the political sphere. Even among the matrilineal tribes, traditionally women are not village leaders and are not even supposed to participate in the village *dorbar*, the assembly of village men, which is supposed to be the decision-making body of the village community among the Khasi tribes of Meghalaya.

In most tribes in mainland India too, women do not play any role in village community affairs (see Kelkar and Nathan 2020). The village priest and head too are men. Women are excluded from key rituals, and not even allowed to enter the sacred groves, or participate in primary clan rituals. This feature of the traditional exclusion of women from community political affairs has clashed with the reservations for women in the Gram Panchayat and other forms of local government.

Among the Nagas, some women went to court to secure their rights to representation in local government institutions (Dzivichhu 2012). This was strenuously opposed by leaders of the Naga traditional community organisations in the name of preserving Naga culture. The discourse on women's role in panchayats has entailed similar discussions on women's role in the context of the Panchayat Extension of Scheduled Areas Act (PESA). Over time, some ways have been found to overcome women's non-representation in political affairs. Sometimes, this has been done by setting up new types of

organisations that have, in a sense, bypassed traditional organisations.

In Nagaland, the Village Development Council (VDC) is a new organisation, with the mandate to manage village development funds (see Chapter 9). Usually, there is one woman in the VDC, though her role is confined to that of supposed women's affairs (SIRD 2006). In Meghalaya, village environmental organizations which also manage project funds have been set up in the name of IFAD-supported development projects. These village committees included equal numbers of women and men.

At another level, forest management committees, whether in the form of the Joint Forest Management (JFM) or Community Forest Management (CFM), included women in village management roles (Edmonds and Wollenberg 2003). PESA too stipulates an equal role for women as members of the Gram Sabha or the village assembly, though in the Gram Panchayat there is a reservation of just one-third of the seats for women. The importance of women in CFM is brought out in many of the contributions to the book *Gender Relations in Forest Societies in Asia* (Govind Kelkar, Dev Nathan, and Pierre Walters (2002), and also by others (see for example, Bina Agarwal 2009).

After the enactment of the Forest Rights Act (FRA), the issue of creating roles for women in community and forest management has received an impetus. Women, as the main collectors of NTFP, do not necessarily get to play an automatic role in

the village-level NTFP management committees. Nevertheless, due to the efforts of various NGOs in different parts of India (for example, Gadhchiroli in Maharashtra and various districts of Jharkhand), women have secured equal or more than equal representation in village-level NTFP management committees. But, as pointed out, this is due to the intervention of local NGOs. Where such NGO intervention has not been forthcoming, women seem to have been left out of NTFP management.

We now look at two factors that seem to underlie this deterioration, the persecution of women as witches, and changes in norms.

7.10 Violence against Women

Violence against women manifests both at the family and community levels. Domestic violence or violence experienced by women within the confines of the household has an equally damaging impact on their well-being, as do incidents of crime outside the safe premises of a family.

In NFHS, domestic violence is defined to include violence by spouses and other household members. Table 7.10 depicts that in 2005–06, 39.3 per cent of the ST women had experienced physical violence during their life (since the age of 15 years) and these proportions pertaining to ST women are higher than the national average but lower than those for SC women. In both 2015–16 and 2019–20, a lower proportion of women reported physical violence in all social groups including STs. The proportions for ST

Table 7.10: Percentage of married women (aged 15-49 years old) who have ever experienced domestic violence in 2005–06, 2019–21

Social group/all	Physical violence			Sexual violence			During pregnancy*	
	2005–06	2015–16	2019-21	2005–06	2015–16	2019-21	2015–16	2019-21
Scheduled Tribes	39.3	31.4	24.4	10.2	7.8	4.9	4.8	3.6
Scheduled Castes	41.7	35.7	27.4	11	7.3	5.5	5.7	3.7
Other Backward Castes	34.1	30.9	23.7	7.4	5.7	4.3	3.5	3.1
Others	26.8	22.2	16.6	7.8	4.5	3.8	2.8	2.6
India	33.5	29.5	23.0	8.5	5.8	4.5	3.9	3.2

Note: *Data for violence during pregnancy are available only for 2015–16. For 2019-21, these are calculated from the raw data.

Source: Calculated from NFHS 3, NFHS 4 and NFHS 5.

women facing violence proportionally slightly exceed the national average in all the years reported in this table.

In 2005–06, the incidence of sexual violence was reported by 10.2 per cent of the ST women. This has come down to 4.9 per cent in 2020–21, though the proportion of ST women was higher than the national average.

Women have reported incidents of violence even during pregnancy. In 2015–16, 4.8 per cent of the ST women had experienced violence during their pregnancy. Overall, there was a reduction of domestic violence against ST women from 39.3 per cent in 2005–06 to 24.4 per cent in 2019–21 for physical violence and from 10.2 per cent to 4.9 per cent in the case of sexual violence over the same period. But the rates of incidence of physical and sexual violence against ST women are still higher than the national figures for different types of violence. This is a matter of serious concern and must be considered while devising policy for gender equality.

7.11 Rape and Other Atrocities

Cases under the SC/ST Prevention of Atrocities Act do not mention the gender of the victim, but they do identify the types of cases. If rape is taken as a crime against women, ST women accounted for as much as 30 per cent of all cases against STs under this Act. This is much higher than the corresponding figure of 16 per cent of all cases against SC women (Ganesan 2018).

Since these are cases registered under the SC/ST Prevention of Atrocities Act, they refer to only rape of ST women by non-ST men; incidences of within-community rapes are not included in this figure. Thus, they not only represent an under-reporting of the total rape cases against ST women but also add to the litany of ways in which ST women and communities are oppressed by the other social groups.

Witch persecutions and killings is another important concern among STs, especially in some regions, even though it is not limited to STs alone. Violence with accusations of witchcraft take place at the community level. The incidence of which persecutions among STs, needs to be addressed by

mobilising state and non-state actors and engaging in dialogues with communities. A silver lining: The importance of opposition to women persecution as supposed witches has been given some recognition by the award of Padma Shri to two women, Chutni Devi of Jharkhand and Biru Bala Rabha of Assam, for this work in supporting persecuted women.

7.12 Cultural Norms and Women's Health from Cooking

Cooking with unclean fuels, that is, solid biomass, which results in household and ambient air pollution, is highly prevalent among ST households. The low opportunity cost of women's labour reinforces cultural norms about cooking with wood. Studies have shown that eliminating household air pollution through cooking with solid biomass would be sufficient in itself to bring atmospheric pollution levels in north India down to the prescribed target levels (Chowdhury et al. 2019). Further, in the context of COVID-19, it has been found that mortality from COVID-19 is higher for those with lung ailments (HSPH 2020 and Science Daily 2020).

The Central government's Ujjwala programme has been successful in providing access to clean cooking energy in the form of Liquefied Petroleum Gas (LPG) to poor women. However, the use of LPG as fuel by the ST is still low as seen from Table 7.11. While there are supply-side factors such as disruption in the use of LPG due to delays in getting cylinder refills, the major factors that need to be considered are on the demand-side. These include the prevalent social norms about cooking with wood, women's limited decision-making power, and also low valuation of women's labour. As a result of these there is strong tendency to continue using wood as the primary fuel and adopt LPG as the secondary fuel.

A quick field appraisal of six villages in Jharkhand (in June 2019) revealed that most households continued to use wood as the primary cooking fuel, using LPG only for making tea and in an emergency, say, during the rainy season. The latest NSS round (July–November 2018, Table 7.11) confirms that 60 per cent of the ST households use unclean fuel, mainly firewood and crop residues, as compared to corresponding figures of 35.91 per cent for all households, and 24.22 for 'Others' or non-Scheduled households.

Table 7.11: Social group-wise use of unclean cooking fuel by households (per cent)

Cooking fuel type	ST	SC	OBC	Others	ALL
Firewood, chips, and crop residue	57.48	37.3	29.09	21.43	31.24
Dung cake	1.1	5.75	4.67	1.92	3.78
Kerosene	0.22	0.33	0.25	0.54	0.34
Coke/Coal	0.73	0.64	0.58	0.32	0.53
Charcoal	0.09	0.01	0.02	0.01	0.02
All unclean fuel	59.62	44.03	34.61	24.22	35.91

Source: Unit-level data from NSS 76th Round, 2018.

Box 7.1

Very Few Switches to Clean Cooking Fuel

In Jharkhand, in three villages (Kotari, Bucha Opa and Chainguda) of Ranchi District almost all households had LPG connections. In one village 5 per cent (of 200 households), in the second village 30 per cent (of 50 households) and in the third only 3 per cent (out of 300 households) had switched to LPG for the main cooking. In two villages in Khunti District, many used it regularly. But, as they said that a refill lasts about two to three months, this means that LPG is not the primary fuel. It is used to cook a specific meal, for instance, making breakfast before children go to school. However, in two villages in a thickly forested district, Simdega, few had received PMUY connections, and none reported switching to LPG as primary fuel.

Source: FGDs in Ranchi, Khunti and Simdega Districts of Jharkhand, in June 2019

In view of the threat of higher morbidity from the COVID-19 pandemic to those with chronic lung ailments, it is an urgent public health issue to stop the use of wood and crop residues as cooking fuels by ST women. This necessitates policies that would mandate not only access to but also sustained use of LPG as the primary cooking fuel. In this context, the following interventions are possible: provision of a smaller, second cylinder to take care of disruptions in supply; promotion of income-earning and asset holding agency among women to increase their decision-making power in the household; and the promotion of clean cooking with LPG as the 'new normal'. Further, there is need for advocacy to stress

the double effect of switching to LPG—the household benefit from reducing air pollution and the wider benefit of preserving ecosystem services from trees. Such a combination of interventions can promote a rapid shift to LPG as the primary cooking fuel and also help conserve forests and an environment-friendly ecosystem.

At a meeting organised by The Energy and Resources Institute (TERI) in September 2019, it was pointed out that the Forest Department in Karnataka was giving free LPG cylinder refills to those dwelling in the forest periphery. Such approaches could be used to motivate the ST women to abandon the use of solid biomass for cooking. Another way could be to link some additional number of days of employment under the National Rural Employment Guarantee Act (NREGA) with the purchase of an LPG cylinder.

The above interventions, however, also need to deal with the prevalence of social norms that valorise cooking with wood as a cultural construct of the STs. In North-east India, for instance, many families follow the culture of the fireplace, which all family members gathering around it. Such fireplace gatherings also become the sites where the folk stories and culture of the community are transmitted from one generation to another, often from grandmothers to grandchildren, as discussed in Kelkar et al. (2017). However, such cultural events and traditions are often carried out at the cost of the women, who spend the maximum time working at the fireplace. Thus, as in many other aspects of development of STs, there is a need to redefine norms for the advancement of the ST community and for ensuring a better quality of life for them.

7.13 Norms and the Assertion of Independence by Women

There has been an increase in gender inequality in the ST community, over several indicators. There is inequality across multiple dimensions reinforcing each other. Despite their high labour force participation, ST women's control over household spending is lower than in other social groups. This shows that adverse norms are at work. As the 2020 report of the United Nations Development Programme (UNDP) points out, "Norms can determine autonomy and freedom, and beliefs about social censure and reproach create barriers for individuals who transgress" (UNDP 2020: 6) Witch accusations and persecutions certainly create barriers for those who transgress accepted norms. Despite legal possibilities for asserting property rights, women who seek to assert their land rights can be socially censured for not upholding community norms, as in the Santhal statement "good women do not inherit land" (Nitya Rao, 2008).

Changing gender norms is not easy. Individuals who seek to challenge them can face censure and community persecution. Knowledge and awareness can help in preventing situations wherein women are blamed for all health catastrophes. For instance, at one time in Chhattisgarh cholera used to be attributed to "cholera witches". But this is no longer the case as people have now begun to associate cholera with infected water (Macdonald, 2021).

History shows that changes in norms are more likely when challenges are faced collectively by the community rather than by individuals (Ensminger, 1992). Hence, women's collectives, such as self-help groups and other women's organisations, can play an important role in challenging and changing norms. Such changes in norms need to accompany material changes, such as promoting greater access for women to income-earning opportunities as well as increasing their control over income and property. Some of the data presented earlier in this chapter, such as the decline in domestic violence during the decade leading up to 2015–16 also possibly indicates a greater assertion by ST women. These positive trends could play a significant role in ensuring more gender-equal development among the ST communities. That, however, requires both more

assertion by women and education of men to accept more equal gender relations as the way in which development can be promoted.

7.14 Conclusion

Gender equality is important both as a component of human development and as an instrument in promoting higher human development. A reduction of gender inequality in both educational and health outcomes would promote higher economic productivity among women and, thereby the productivity of their households and communities. At the same time, it is necessary to design interventions that allow women to get increased benefits and secure enhanced agency from their increased productivity.

The evidence analysed in the chapter suggests both improvements and deterioration in women's position in ST communities as a whole, though a detailed analysis may show that some States have done better than others in moving towards gender equality. The positive trends are seen in the school enrolments, reduction in teenage pregnancies, and reduction in the levels of domestic violence. However, gender gap in education attainments is highest, and teenage pregnancies and domestic violence levels are still higher among STs compared to non-STs. There has been a sharper deterioration of child sex ratio in the recent years, even though STs have a remarkably higher sex ratio compared to non-STs. Though work participation rates are high among ST women, they have very less control on their cash earnings compared to other social groups. Overall, these issues and disparities underscore discrimination against the girl children and women among STs

In promoting gender equality, one should also examine women's access to basic facilities, such as in education and health services. At the community level, a lack of social security and growing inequality (Kannan, 2018) would exacerbate intra-village tensions. In addition, there is need for community campaigning on restrictive gender norms, be it regarding the treatment of women as witches, or their ownership of land, and control over spending money out of the household income.

Particularly Vulnerable Tribal Groups: Vulnerabilities and Development

Particularly Vulnerable Tribal Groups: Vulnerabilities and Development

This chapter deals with the most vulnerable groups among the Scheduled Tribes (STs), officially categorised as the Particularly Vulnerable Tribal Groups (PVTGs). It reviews the existing literature on their vulnerabilities, particularly related to their socio-economic well-being and issues around their livelihood changes, access to food, nutrition, and health. It critically documents the developmental approaches and policies being implemented for these groups and highlights the priority areas and possible interventions.

8.1 Making of the Category

In spite of special Constitutional provisions and programmes for the welfare of the STs, the development status of some of the groups was found to be severely lagging behind the other ST groups. The Dhebar Commission¹ recognised different layers among the STs and noted that the “lowest” of them was “in an extremely underdeveloped stage”, which needed “the utmost consideration at the hands of the Government” (Gol 2004). The Government of India identified a separate category within the STs called the primitive tribal groups (PTGs) in order to address the special needs of such groups and bridge developmental gaps since the Fifth Five-Year Plan. The main characteristics of these groups, which formed the criteria in their identification, were ‘pre-agricultural level of technology, stagnant or declining population growth, extremely low level of literacy levels, and a

subsistence level of economy’.² In the year 2006, they were renamed as ‘particularly vulnerable tribal groups’ (PVTGs). Currently, there are 75 PVTGs residing across 18 states and a Union Territory (UT) (see the state-wise list of groups and their population presented in the Appendix -8.1 at the end of this chapter).³

PVTG is an administrative category within STs, and not a (separate) constitutional category like the SCs or STs. It has been created to address the special needs of some groups within the STs that are most vulnerable. Strangely, however, 13 of these groups have not been notified as STs, due to discrepancies in official records.⁴ There remains confusion on their constitutional status as a scheduled group, which deprives them from availing of the affirmative provisions and other developmental benefits secured for the STs.⁵ Part of this problem arises because of the anomaly in names and nomenclature of the

1 The first Scheduled Areas and Scheduled Tribes Commission instituted in 1961 under Article 339(1) of the Constitution.

2 See <https://tribal.nic.in/DivisionsFiles/GuidelinesofPVTGs17092019.pdf>, accessed on 16 March 2020.

3 Some of these groups are present in more than one State, and thus adding up the number of groups State-wise takes the total count to more than 90. However, there are anomalies in the classification of PVTGs with the same groups identified by two different names in the same State, in which case the actual number of PVTGs would be 63 instead of 75 at the national level (see Misra 2016).

4 They are Bondo Poroja, Kond Poroja, and Konda Savaras in Andhra Pradesh; Maria Gond in Maharashtra; Marram Nagas in Manipur; Bondo, Dhongria-Khond, Kutia Kondh, Lanjia Sauras, Paudi Bhuyans, Soura, and Chuktia Bhunjia in Odisha; and Great Andamanese in the Andaman & Nicobar Islands.

5 In 2017, the National Commission for Scheduled Tribes suggested to the Ministry of Tribal Affairs that the respective governments of the states inhabited by these groups are asked to make proposals for the inclusion of these groups in the list of STs “so that persons belonging to these communities avail the benefits of STs” (NCST letter No.22/1/2017 -Coord., dated 6 July 2017, see https://ncst.nic.in/sites/default/files/proceedings_of_review/745.pdf, accessed on 24 July 2020).

groups in the official ST lists, which do not match with the locally recorded full names and spellings of the names of these groups.⁶ In some cases, the same group residing in different administrative territories has been officially listed with different names.⁷ These anomalies jeopardise the operational values of these lists, resulting in conflicts.

There are also other issues of identification related to the PVTGs in the respective states or UTs, which complicate matters in the process of implementation. They arise when an ST group inhabits more than one State but is declared as a PVTG in one State and not the other. Members of the group tend to migrate to the State in which it is recognised as a PVTG for the benefits of the special developmental programmes (Misra 2016). A similar tendency of migration occurs when micro-projects meant for implementing development schemes for a specific PVTG are spatially limited and do not cover the whole group spread outside the project area (Misra 2016).

The STs, in general, faced prejudice and discrimination due to their identification as ‘tribes’, among other reasons. The PVTGs suffer an additional burden due to the misconceived official labelling, even though the term ‘primitive’ was replaced with ‘particularly vulnerable’—the former was a derogatory connotation, even if unintended, implying that the social group concerned is lagging in terms of cultural progress and is inferior in status.

6 Vinay Srivastava, a noted anthropologist and the Director of the Anthropological Survey of India, pointed out this anomaly while reviewing this report in 2020 and elaborated the discrepancy between the actual names and names of communities in the official list: 1. Bondo Poroja (PVTG) are listed as Porja, Parangiperja (ST) in Odisha; 2. Kond Poroja (or Khond Poroja) (PVTG) are listed as Konda Poroja (in Odisha) and also as various types of Kondh (ST); 3. Konda Savara (PVTG) as various types of Savara (ST); 4. Maria Gond (PVTG) are assumed to be listed in various types of Maria (ST) in Maharashtra; 5. Marram Naga (PVTG) are listed as Maram (ST) in Manipur; 6. Bondo (PVTG) are listed as Bondo Poraja, Bonda Paroja, and Bonda Paraja (ST) in Odisha; 7. Dongaria Kondh (PVTG) are listed as Dungaria Kondh (ST) in Odisha; 8. Kutia Kondh (PVTG) are listed as Kutia Kandha (ST) in Odisha; 9. Lanjia Sauras (PVTG) are listed as Lanjia Saora (ST) in Odisha; 10. Paudi Bhuyan (PVTG) are not listed in the ST list of Odisha and the names Bhuiya and Bhuyan occur; 11. Soura (PVTG) are listed as Saura (ST) in Odisha; 12. Chuktiya Bhunjia (PVTG) are listed as Bhunjia (ST) in Odisha; and 13. Great Andamanese (PVTG) are listed as Andamanese (ST) in the Andaman and Nicobar Islands.

7 Koteswar Rao, an anthropologist who conducted research among the Konda Reddis of Andhra Pradesh, pointed out while reviewing this chapter that *Konda Reddis* and *Hill Reddis* represent the same group but are differently named in adjacent districts.

They continue to be implicitly characterised as survivals from the past—referred to as those living in a ‘stage’ of hunting and gathering or nomadism, or practising ‘pre-agricultural’ technologies.⁸ Objectionable representations of these groups through the use of terms such as ‘primitive’ or the depiction of contemporary livelihoods and technological status as a ‘level’ or ‘stage’ in prehistory continue in both official terminology and academic research. The identification of vulnerable groups and vulnerabilities were well-intended but the terms of reference and criteria for their characterisation should be revisited to ensure non-discrimination and social equality.

According to a Ministry of Tribal Affairs (MoTA) Standing Committee in 2002, PVTGs are among the worst affected by developmental projects such as dams, industries, and mines (Pattnaik 2017). Furthermore, as most PVTGs tend to be dependent on forest environments, the policies of the government that involve takeover of forest land and deforestation have drastically affected their life, food, health, and livelihood. The following sections discuss the socio-economic conditions of the PVTGs, using the available secondary research on the ethnology, health, livelihood, and demography of the PVTGs.

It is also important to note here that the PVTGs are an under-studied group, and that consistent, reliable, and comparable data on their health, livelihood, and demography are largely absent. A survey of the four major anthropological journals of India—*Journal of Anthropological Survey of India*, *Eastern Anthropologist*, *Man in India*, and *Indian Anthropologist* revealed that since 2000, only around 34 articles related to these groups have been published and are accessible for further research. The quality of research and writings on these groups also reflect poor research funding and academic rigour. However, an attempt by the Anthropological Survey of India that undertook a survey of all the PVTGs in 2012 to map their socio-economic status, which is compiled in a published volume on the PVTGs (Misra 2016), is noteworthy. The PVTGs need to be understood better for more effective and appropriate ways of protecting their health, well-being, social life, and livelihood.

8 One of the identifying features of these groups is that they practise ‘pre-agricultural level of technology’. Needless to point out that any contemporary lifestyle or livelihood activity practiced by a group is a form in its own right and does not ‘represent’ a particular stage in history/prehistory or cultural evolution.

8.2 Declining Population or Discrepancies in Enumeration Data?

As per the 2011 Census, out of 75 PVTGs, 8 groups have a population of less than 1,000. They are Cholanaickans of Kerala, Kamars of Madhya Pradesh, Kotas of Tamil Nadu; and the Jarwas, Onges, Shom Pens, Great Andamanese, and Sentinelese of the Andaman and Nicobar Islands. In 2001, a few of them were less than even 100. In view of their socio-economic vulnerability and small population sizes, some of these groups have been considered as 'endangered' and 'on the verge of extinction'.⁹ However, these alarming observations seem to pertain to a few groups that are considered to be under more threat. There are 16 PVTGs which have a population size of more than 100,000 and some of their numbers are strangely high in 2011 which needs a scrutiny.

One of the important criteria used to identify PVTGs in the first place, as noted above, was their declining or stagnating population. This population dimension of PVTGs prompted some governments to exclude them from the promotion of family planning policies. The policy introduced in the (erstwhile) State of Madhya Pradesh in 1979 in this direction was perversely interpreted and implemented as a 'ban' on family planning among these groups, depriving their rights to reproductive health and family planning (Nandi et al. 2018). The Baiga, a PVTG from Chhattisgarh, which continued to suffer from this government order, got relief recently with the State high court upholding their rights in 2018 (Nandi et al. 2018; Bhuyan 2018).

Many studies on PVTGs state that there has been a decline in their population growth, but most of these claims have not been based on sound evidence. There are two issues that make the reading of Census figures at face value a doubtful exercise: one, some groups do not figure in the ST list, and two, some of those in the list figure as part (sub-group) of a (main) ST group but not enumerated separately¹⁰.

This is because Census of India enumerates SCs and STs strictly as per the lists of these groups notified by the Constitution (Scheduled Castes and Scheduled Tribes) Order, 1950. As noted in the beginning, PVTG is not a Constitutional category, but an administrative category. Unless a whole ST group is a PVTG, Census will not enumerate them as an independent ST group. Thus, the Census data excludes 13 groups altogether which do not figure in the ST list and includes 22 groups by merging them in the larger/main ST groups but are not enumerated separately¹¹.

Based on the population statistics compiled by the MoTA in 2013, the PVTGs accounted for a total population of 2.77 million in 2001 and 10.28 million in 2011 (see Table 8.2). The higher numbers in 2011, however, do not represent a rise in population of these groups. Census 2011 figures of some groups, in particular Abhuj Maria and Maria Gong, appear to be abnormal, which calls for caution in assessing their actual size (see Appendix -8.1). Their numbers were few thousands in 1981, but account for more than two-thirds of the total PVTG population in 2011. The increase in 2011 is also because of the inclusion in the count of a few major groups such as the Abhuj Maria in Chhattisgarh, Maria Gond in Maharashtra, Kharia and Saura in Odisha, and Kondasavara in Andhra Pradesh, which were missing in the previous Census. These and other smaller groups together, which accounted for a population of 7.93 million, were missing in the compilation of the 2001 population figures (Appendix -8.1).

If we consider only those groups whose population figures have been provided for both the years, that is, 2001 and 2011, the decadal growth rate of PVTGs, going by the Census figures at face value, is negative at -14 per cent, down from 2.73 million in 2001 to 2.35 in 2011. It was an unusual contrast, as the growth rate for the STs, in general, during

matter with the RGI, 6 groups were still not notified in the ST list. However, those included were merged with 'their major tribal groups'. https://eparlib.nic.in/bitstream/123456789/64954/1/15_Welfare_of_Scheduled_Castes_and_Scheduled_Tribes_29.pdf

9 Draft Recommendations of the Working Group of National Advisory Council, *Development Challenges Specific to Particularly Vulnerable Tribal Groups (PVTGs)*, 2013: <https://tribal.nic.in/downloads/other-important-reports/NACRecommendationsforPVTGs.pdf>.

10 Parliamentary Committee on the Welfare of Scheduled Castes and Scheduled Tribes (2013-2014) in its Report on the Ministry of Tribal Affairs (SCTC NO. 767) noted that 18 PVTGs were not included in Census 1991 and 2001, and even after the MoTA pursued the

11 Rajya Sabha Unstarred Question No. 2697, Government of India (2021). The Ministry of Tribal Affairs reported to the Parliament the population details pertaining to only 52 PVTGs and noted the following for the figures of missing groups: "13 PVTG communities do not figure in present ST list. Hence, Census data are not available community-wise for these PVTGs. 22 PVTGs do not appear as main STs. Hence, Census data on these sub-tribes are not available separately but merged with concerned main STs."

this period was 23 per cent. However, one should be cautious in drawing any inferences from the Census population figures of PVTGs. The actual growth rate of these groups is not clear owing to inconsistencies in the enumeration figures between different Census years. This doubtful pattern is also apparent between the years 1991 and 2001, which showed a positive growth rate of 14 per cent. Further, some groups seem to have been under-counted in one Census year as compared to another, which is evident in the abnormal spurt or dip in numbers of some groups: for example, the population of the Saharia in Madhya Pradesh was more than 450,000 in 2001 but is shown to be merely 165 in 2011, and the population of the Maram Naga is 20 times higher in size in 2011 as compared to its population figure in 2001.

Some of the inconsistencies in enumeration also arise due to the ground-level complexities and difficulties in enumerating these groups. For example, some scholars have also pointed out the possibility of under-counting of these groups, given that they live in relatively inaccessible regions and tend to migrate often (Firdos 2005). The population dynamics of PVTGs are also linked to changes in their sources of livelihood, whereby they are forced to migrate to places where they find opportunities. In the case of the Birhors of Jharkhand, there was a noticeable change in the district-wise distribution of the group. The quantitative population data assessed in tandem with qualitative research reveals that with the depletion of forest resources in districts such as Ranchi, and the non-availability of non-forest livelihood opportunities, the Birhors have migrated to other districts with higher forest cover such as Hazaribagh, leading to a redistribution of their population rather than its absolute decline (Firdos 2005).

Another challenge to the enumeration of PVTGs lies in the ways that they identify themselves. Bird-David (2014) shows that the Nayaka tribes of the Nilgiri-Wayanad region rarely use the said term to describe themselves. Instead, they use the term '*nama sonta*' (our own), which includes all those who lived in the hamlet, including those who were not Nayaka, the non-Indian ethnographer, and also the non-human species living there. This spatial identity, which is more 'inherently open and inclusive', is preferred over the essentialist ethnic category of Nayaka (Bird-

David 2014: 144–145). This kind of discrepancy of identification in the enumeration process may not necessarily be limited to only the PVTGs. But the variation such issues influence over time brings stark visibility owing to the smaller size of these groups.

Notwithstanding these complexities and enumeration issues, the concern of a population decline, particularly in the case of some groups, is very real and needs a systematic analysis¹². More importantly, this situation calls for urgent attention to the population and health concerns of the PVTGs, and the need for a special drive and mechanisms to capture reliable Census statistics and demographic details of PVTGs in the entire country. Baseline surveys of these groups by respective state governments has been a policy since the 11th plan. Though they have been emphasised over time, the quality of the surveys and reliability of population numbers remains a concern. For example, the baseline surveys conducted in Odisha initially (2011 and 2015) covered only 541 villages/habitations in 17 Micro Project areas. After realising that many villages within and outside these project areas were left out, another survey in 2018 identified 892 villages within and another 250 villages outside the project areas as PVTGs' habitations (SCSTRTI, 2019). This correction increased the total PVTG population in the state by nine times. In view of such discrepancies and lacuna in population data of PVTGs, a uniform procedure needs to be devised for listing of these groups across states, in addition to the state-level surveys meant for the development plans. The Working Group of the National Advisory Council (2013) noted that "the regular Census does not comprehensively capture the data of PVTGs and recommended that "a specially designed Census for these communities be conducted, which apart from their enumeration, will also cover the status of their health, nutrition and education". The upcoming Census 2021 should thus be seen as an opportunity to meticulously count the population and identify other demographic details of these groups, which is crucial for monitoring their health and survival issues.

12 This concern was recorded by the Parliamentary Committee on the Welfare of Scheduled Castes and Scheduled Tribes (2013-2014) in its Report on the Ministry of Tribal Affairs (SCTC NO. 767)

Table 8.1: State-wise PVTG population in 2024 recorded as part of the PM JANMAN mission

States	PVTG Districts	PVTG Blocks/Taluka	PVTG Villages	Total PVTG Habitations	PVTG Households	PVTG Population
A&N Islands	1	2	2	2	59	191
Andhra Pradesh	13	148	1148	3967	126898	478766
Chhattisgarh	18	90	1083	2163	59834	229656
Gujarat	20	69	593	1008	31023	153513
Jharkhand	24	170	2298	3417	88700	376387
Karnataka	5	26	486	763	15491	57047
Kerala	6	16	101	604	8335	29511
Madhy Pradesh	24	138	3892	5618	318498	1272235
Maharashtra	17	100	2313	3930	147498	623151
Odisha	14	67	983	1679	65774	300003
Rajasthan	1	8	338	427	31896	128456
Tamil Nadu	22	114	1696	3007	91419	381624
Telangana	10	72	299	548	16583	63194
Tripura	8	31	300	1262	62620	272523
Uttar Pradesh	1	2	7	8	815	3527
Uttarakhand	7	15	124	194	13573	92233
West Bengal	4	21	349	420	17860	62315
TOTAL	195	1089	16,012	29,019	10,97,072	45,25,149

Source: Ministry of tribal Affairs; The latest report of the data survey done by State Tribal Welfare Development Department as recorded on PM GatiShakti portal as of 26.06.2024

It should be highlighted that in view of the serious development challenges faced by the PVTGs, the Union Government launched Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) in November 2023, with an aggregate budgetary outlay of Rs. 24,000 crores. It aimed for a comprehensive coverage of basic infrastructural facilities and other services through the convergence of nine ministries including the Ministry of Tribal Affairs (see Box no. 8.3). In order to implement this scheme, basic

demographic and other infrastructural data related to the PVTGs was collected at habitation level through a mobile application and the same was aggregated on the PM GatiShakti portal. According to the latest figures updated on this portal, the population of PVTGs recorded in 2024 is about 45 lakhs (see Table 8.1 state-wise PVTGs population). This all-India figure is about 66 percent more and 56 percent less than the population of PVTGs depicted by the 2001 and 2011 Census respectively.

Table 8.2: State-wise Population of PVTGS In 2001 and 2011

States/UTs/all-India	2001	2011
Eastern and central region		
Bihar	10,873	21,619
Jharkhand	3,87,358	4,88,494
Madhya Pradesh (including Chhattisgarh)	7,85,720	57,01,763
Odisha	68,745	8,45,646
West Bengal	85,983	68,868
Western region		
Dadra & Nagar Haveli	--	--
Daman & Diu	--	--
Goa	--	--
Gujarat	1,06,775	1,44,593
Maharashtra	4,08,668	20,98,095
Rajasthan	76,237	1,11,377
Northern region		
Himachal Pradesh	--	--
Jammu & Kashmir (including Ladakh)	--	--
Uttar Pradesh	5,365	6,951
Uttarakhand	47,288	6,005
Southern region		
Andaman & Nicobar Islands	816	769
Andhra Pradesh	3,34,144	5,38,994
Karnataka	45,899	50,870
Kerala	20,186	25,440
Lakshadweep	--	--
Tamil Nadu	2,17,937	2,55,600
Telangana	--	--
North-eastern region		
Arunachal Pradesh	--	--
Assam	--	--
Manipur	1225	27,524
Meghalaya	--	--
Mizoram	--	--
Nagaland	--	--
Sikkim	--	--
Tripura	1,65,103	1,88,220
All India	27,68,322	1,02,81,231

Source: GoI (2013).

Table 8.3: Educational Levels among PVTGs and All STs (in per cent of population)

Groups	Literacy	Matric/ Secondary	Higher Secondary/	
			Senior Secondary /Intermediate	Graduate and above
PVTGs	50.4	3.5	2.0	0.9
All STs	59.0	4.5	3.1	1.7

Source: Computed from Census 2011

Table 8.4: Worker Participation Ratios and Shares of Main and Marginal Workers

Groups	Worker Participation Ratio	Main workers	Marginal workers
PVTGs	48.6	61.3	38.7
All STs	48.7	64.9	35.1

Source: Computed from Census 2011

Table 8.5: Share of Workers in Agriculture (Cultivators and Agricultural Labourers) and Non-Agriculture

Groups	Cultivators	Agricultural Labourers	Workers in Agriculture	Workers in Non-agriculture
PVTGs	39.7	42.1	82	18
All STs	40.9	36.2	77	23

Source: Computed from Census 2011

Table 8.6: Share of Workers in Primary, Secondary, and Tertiary Sectors

Groups	Primary Sector	Secondary Sector	Tertiary Sector
PVTGs	84.4	6.8	8.9
All STs	80.1	7.7	12.2

Source: Computed from Census 2011

8.3 Education among the PVTGs

The Census of India provides some measures pertaining to individual ST groups including their demographic features, education levels and worker categories. We compiled this data on each PVTG

group from among the STs from all the states and UTs that they inhabit (see Appendices 8.2 - 8.4 of this chapter). We have also aggregated data on specific indicators of all the PVTGs in order to compare them with the overall ST population.

As Table 8.3 shows, PVTGs significantly lag in education in general, and even when compared to the overall situation of STs. According to Census 2011, only half of the PVTG population had any literacy, while 59 per cent of STs in general were literates. Educational backwardness is stark when we look at educational levels beyond literacy rates. Only 3.5 per cent of them have completed Matric/ Secondary level of education and just 0.9 per cent completed Graduate and above levels of education. Gender disaggregation shows that girls and women are further behind males in education – merely 2.6 per cent, 1.3 per cent, 0.6 per cent of them have finished Secondary, Higher Secondary and Graduate levels respectively.

However, some PVTGs are better placed than others in education (see Appendix 8.2). For example, Kota and Toda in Tamil Nadu, Maria Gond in Maharashtra, Birhor in Madhya Pradesh, Saharia in Chhattisgarh, Toto in West Bengal and Maram Naga in Manipur perform in education better than STs as a whole. Whereas most others including the Baiga in Madhya Pradesh, Saharia in Rajasthan and several groups across states have barely completed school education. There is no discernible state-wise pattern in educational performance with regard to PVTGs. It varies substantially between groups within states and overall, their performance is poor. As discussed in Chapter 5 on education, though there are improvements in school education among STs in the recent years, their access to higher education is severely limited. Their entry into technical, technological and professional education has been particularly very slow. These issues are more pronounced among most of the PVTGs.

Box 8.1

The Chuktia Bhunjia -A PVTG in Odisha

Excerpts from Sabar (2014)

Chuktia Bhunjia... inhabit in the Sunabeda Wildlife Sanctuary of Nuapada district [Odisha] along with other communities...

The economy of Chuktia Bhunjia is a hunting-gathering type which is of subsistence one. Shifting cultivation (bewar) is the predominant form of agriculture that shows their primitive techno-economic standard. However, very few of them have adopted settled agriculture... Very few households have acquired government land patta whereas majority of them are landless and live-in encroached land. During leisure they go for wage labour or quarry contractor on which they are paid according to the wage rates fixed by village council and government respectively.

They domesticate cow, goat and hen...collect the forest resources, albeit strict rules have been imposed by the forest department ... occasionally ... hunt wild animals ... also catch fishes.

The Chuktia Bhunjia face lots of problems. Most of the villages do not have school which is one of the major causes for low literacy. However, the access to education among women is always governed by the customary laws and societal norms. Many villages, particularly so-called encroached hamlets lack infrastructure facilities like road that again make them vulnerable due to in-access to development programmes. Land holding is a biggest problem among them due to their forest habitation. Many of the families do not have authorized land and live on encroached one. As they inhabit in the core zone of the wildlife sanctuary, they cannot expand their land, rather live as mere encroacher. The biggest threat to their livelihood is the state forest department who do not allow them to collect even the required forest resources. The strict restriction was imposed more after the declaration of sanctuary as 'tiger project' which again raises the issue of 'man-environment' conflict. The proposal of tiger project has threatened people to be displaced.

8.4 Change in Livelihoods

Census of India captures the nature of work and broad livelihood features of the population groups. A comparison of PVTGs and the STs at large shows a considerable difference between them in these features. There is a large variation within PVTGs in their livelihood activities depending on their location and proximity with other groups on the one hand and their traditional occupations and extent of occupational shifts on the other (see Appendix Tables 8.3 and 8.4 for individual groups computed from 2011 Census).

However, when we put all PVTGs together, they exhibit more proximity to land and forests. They are also more under-employed as seen in higher share of marginal workers, suggesting lack of sufficient livelihood options, compared to other STs. As shown in Table 8.4, though the work participation ratios are same for both, the share of marginal workers is higher among PVTGs at 39 per cent than all STs at 35 per cent. PVTGs are engaged in agriculture in higher numbers than all STs (see Table 8.5). Their higher presence in agriculture, however, does not mean they are self-employed in farming as own-account cultivators. They are rather marginalised, as many of them work on others' farms as wage labourers, according to the Census figures - 40 per cent of PVTG workers are cultivators, while 42 per cent of them are agricultural labourers. As expected, only 18 per cent of them are engaged in non-agricultural occupations, a lesser proportion compared to all STs combined at 23 per cent. Similarly, overall, PVTG workers are largely engaged in primary sector and only a few are in secondary and tertiary sectors compared to the STs at large (see Table 8.6).

Recent research also suggests that rampant loss or change in livelihood has severely impacted the health and well-being of PVTGs. Some of these groups historically practised the widest range of livelihood activities, such as the Baigas (Elwin 1937). Currently, they engage in a variety of livelihood activities, which broadly fall in the realm of subsistence economy. Some have 'settled down' by adopting settled cultivation and other livelihoods, moving away from hunting-gathering and shifting/swidden cultivation (Nathan et al. 2012). These groups are also characterised by physical mobility (migration) in contemporary times which is distinct from the nomadism or semi-nomadism, or cyclical movements associated with hunting-gathering or grazing or swidden cultivation. Members of some of the groups migrate in search of work to urban centres and other destinations.

The changes in their ecological settings, resource base and in livelihoods have also impacted their social and cultural life and its relation to nature. The Korwa groups of Chhattisgarh, for example, lived in the forests, and practised hunting and gathering, and some shifting cultivation. This ensured food sufficiency for the group, "without compromising on the 'independence and autonomy' of individuals

or the ties of reciprocity and cooperation within the common forest environment" (Gaur and Patnaik 2011). Further, foraging work is undertaken by communities not just as an economic activity, but also for socialising with the community and for teaching the next generation the skills of foraging, as in the case of the Jenu Koruba's collection of honey from beehives (Demps and Klemetti 2014). Local ecological knowledge is considered as a community asset and is shared with children and adolescents as a way of training them (Demps et al. 2012). However, these occupations are now disappearing. A study of the Savara tribe in Andhra Pradesh shows that deforestation has forced younger members of this group to migrate to urban centres in search of employment (Sabar 2010). It also notes that the need for an income often compels the Savaras to sell their forest produce at lower rates.

Similarly, for the Birhors in Jharkhand, ropemaking by using creepers procured in the forests had been a traditional source of livelihood. However, the loss of access to forests has drastically reduced their earnings, as they are now forced to buy jute for the making of ropes (Firdos 2005). The Birhors in Odisha use the creepers to make nets for hunting monkeys. This was earlier a widely prevalent livelihood option, but it is argued that those in Jharkhand withdrew from monkey hunting with the reduction of forest cover, and due to disrespect for this activity from other groups. Without the autonomy and protection of the forests, their monkey hunting is made visible to neighbours including Hindu groups who disregard monkey consumption, due to its association with the Hindu god Hanuman (Nadal 2014). In this context, Birhors in Odisha try to establish themselves as possessing an important skill and as serving an important function of catching monkeys that cause nuisance and crop loss in fields.

The state of Odisha has the largest number of PVTGs. Based on the Socio-Economic Survey conducted by the Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRI), Bhubaneswar, between 2002 and 2015, the Poverty and Human Development Monitoring Agency (PHDMA) notes that the livelihoods of PVTGs in the region mainly depend on forests and land (PHDMA 2018). Collection and selling of many types of non-timber forest products (NTFPs) and shifting agriculture are the main economic activities for most of the PVTGs in this region. Some practise

terrace cultivation while some others are engaged in settled agriculture and horticulture. The PHDMA observes that most of the PVTGs now prefer to practise settled agriculture, even as they supplement their livelihoods with hunting and gathering from the forests.

Box 8.2 **Chenchus – A PVTG in Telangana**

Excerpts from Thamminaina (2015)

[For]...a hunting-gathering community such as Chenchus, certain resources (e.g., land) were irrelevant. In fact, agricultural land had no value for them when they were highly depending on food gathering and hunting activities [sic]. Therefore, they have ignored when it was occupied by the migrant outsiders. But they have gradually realized the serious consequences of such kind of alienation.

A small portion of the community is still depending on hunting and gathering for the survival. The Chenchus living in the interior areas of the forest are practicing semi-nomadism, but all other Chenchus are leading a more or less settled life. The major reason behind transition is the increasing contact with neighbouring Hindu caste groups. As a result, in the Nallamala region, which is the principal abode of the Chenchus, they co-exist with several other communities. It is believed that majority of those communities are migrants.

Migration to cities for construction work is popular among the Chenchus of Mahabubnagar ... The strong network of contractors in this drought prone district is another important reason ... Even though it is voluntary, they are compelled for that because of their continuous debt to contractors... [The contractor] deducts major portion of the wage towards the advance given to Chenchu family. It is a form of bonded labour for Chenchus.

The Chenchus who have migrated from the core territory to fringe, or multi-ethnic villages are becoming wage labourers and occasionally cultivators ... The large-scale migration for work may be attributed to the displacement of Chenchus from their natural habitat. The establishment of the Rajeev Gandhi National Park (Project Tiger) is a major factor in this regard. Some Chenchus were forcibly shifted from the forest and some others shifted due to the increasing attacks by the wild animals. Some others were moved away from the forest due to the Naxalite movement. The attacks by the police as well as by Naxalites made them homeless. They have not only lost the home but also lost their livelihood.

The Chuktia Bhunjia group (described in Box 8.1) used to practise shifting cultivation in the past. While some of them have now shifted to settled agriculture, some have no access to land (see Sabar 2014). The Chenchus (described in Box 8.2) of Telangana and Andhra Pradesh, like the Baigas and Chuktia Bhunjia, were forced from semi-nomadism to settled lifestyles with severe restrictions on hunting and gathering. All these groups have also suffered displacement due to the establishment of tiger reserves and national parks.

8.5 Access to Food and Nutrition

Food scarcity has been among the most widely discussed challenges facing the PVTGs. The issue was particularly brought to the fore by the instances of starvation deaths among these groups (Khera 2008; Kumar and Mitra 2015). Various studies highlight severe nutrition deficiencies in the diet of some PVTGs, such as the Maram Nagas of Manipur (Meithuanlungpou and Singh 2015; Sahu 1995). The Baiga population too suffers from malnourishment with a large share of underweight children, and also from protein and micro-nutrient deficiency (Chakma et al. 2009; 2014; Shirisha, 2019). Research conducted in Karnataka among the Jenu Kuruba and Koraga studied their access to, and capability to purchase and consume nutritious food, and found rampant food insecurity among the two groups. The strategies adopted by them to cope with food insecurity include borrowing money from friends or moneylenders, mortgaging land, migrating, adjusting intra-household food distribution, reducing the number of meals, portioning or skipping meals completely, eating less-preferred food, relying on forest produce, using up of savings, and pushing the elderly and children in the family to seek work (Sabar 2016). These groups have also been adopting other social coping mechanisms such as avoiding expenditure on social functions or postponing them and refraining from giving gifts on occasions. Undernourishment, in general, and intermittent shocks of food scarcity among these groups also contribute to their ill-health besides the incidence of diseases, which are both vector-borne and acquired through contact with other groups. These threats have been more pronounced in the case of some groups, which has also resulted in a stagnation or decline in their populations.

8.6 Policy Approach and Development of PVTGs

The 'integrated development' approach through the Tribal Sub-Plans (TSPs) recognised variations between tribal communities broadly with respect to two dimensions: one, economic and cultural differences and, two, spatial distribution of the tribal population (GoI 2004). The latter manifested in the concentration or the spread/dispersal of the population and the isolation/seclusion of tribal groups. The 'area approach' to tribal development was followed in regions with large shares of the tribal population. For PVTGs, which were found mostly in the 'secluded' areas, the emphasis was on 'community-oriented' programmes (GoI 2004: 78).

The Bhuria Commission report highlights the fact that the Dhebar Commission had identified different layers among the STs and the "lowest" of them was "in an extremely underdeveloped stage", which needed "the utmost consideration at the hands of the Government" (GoI 2004). The Bhuria Commission considers PVTGs (then PTGs) as the most underdeveloped groups and calls for a "deeply thought-out strategy and dedicated care for them" (GoI 2004: 2). It recommended the recognition of the PVTGs' unfettered rights to forests, calling for amendments to the then Indian Forest Act on the lines of the Wildlife Protection Act, 1972, in the UT of Andaman and Nicobar Islands, and declaring the areas inhabited by these groups as 'reserved areas' similar to the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956.

On the allocation of funds, the policy was not particularly favourable to PVTGs. The Bhuria Report pointed out that the criteria followed in the allocation of funds for tribal welfare had "side-stepped backwardness" (GoI 2004: 103), which had potential negative implications for development outcomes vis-à-vis the PVTGs. In view of the poor achievements in tribal development, the Dhebar Commission had recommended stipulating provisions for financial resources by various departments concerned with the welfare of the STs. Tribal Sub-plans have evolved in this context since the Fifth Five-Year Plan. However, the allocation of funds under the Sub-plan, whether by the Centre to the states or within the states, was based on the population size of the STs and the geographical area of the Integrated Tribal

Development Projects (ITDPs)/Integrated Tribal Development Agencies (ITDAs). This resulted in very little of the funds reaching PVTGs. Therefore, the Bhuria Commission prescribed 'backwardness' as an important criterion to be adopted in evolving financial provisions and allocation of funds.

In the realm of the rights of the PVTGs, and STs in general, a significant development has been the enactment of *The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006*. Given the particular concerns of PVTGs, this Act (henceforth, FRA) acknowledges the customary rights of these groups on forests while defining 'habitat' and the kind of 'forest rights' this Act seeks to secure, as follows:

"Habitat" includes the area comprising the customary habitat and such other habitats in reserved forests and protected forests of primitive tribal groups and pre-agricultural communities and other forest-dwelling Scheduled Tribes rights including community tenures of habitat and habitation for primitive tribal groups and pre-agricultural communities.

Further, the FRA amendment of rules in 2012 recognised the 'vulnerability' of the PVTGs and provided a mechanism to ensure the habitat rights of the PVTGs, as seen from the following excerpt:

In view of the differential vulnerability of PVTGs, the District Level Committee shall ensure that all PVTGs are conferred habitat rights, in consultation with their concerned traditional institutions and that their claims for habitat rights are filed before the concerned Gram Sabhas...

The FRA also stipulated sufficient representation of members from the PVTGs in Gram Sabhas, Division Level Committees, and District Level Committees. Notwithstanding this legislation, the habitat rights of PVTGs are still not recognised in many States (Pattnaik 2017). The Working Group of the NAC noted that this failure is partly because the habitats of these groups are not limited to forest areas alone where the FRA is applicable but are spread across other revenue lands. Their habitats represent 'maximum diversity' in view of the wide variety of livelihood systems and cultures they practise, ranging from food hunting, gathering, pastoralism, and nomadism to settled agriculture.

Perhaps the most comprehensive policy exclusively focused on PVTGs was recommended by the National Advisory Council in 2013, which emphasised the adoption of a rights-based approach to their development. Eleven detailed recommendations were made under the following four broad areas:

- Identifying the groups and their vulnerabilities through a 'specially designed Census' to map their health, education, and material conditions such as housing, besides their enumeration; Promoting rights to customary habitats, including forests, and implementing livelihood strategies and development programmes considering their special needs and vulnerabilities.
- Strengthening institutions of governance through the participatory process and effective service delivery mechanisms; and
- Prioritising the health and nutrition improvements of PVTGs, especially addressing factors for the declining populations, and a special drive for enhancing their educational status.

The National Advisory Council also underscored the need for exercising caution in devising and implementing programmes which can put these groups under further risk and worsen their vulnerabilities and stressed the adoption of a sensitive approach without undermining their self-sufficiency, indigenous knowledge, and their right to choose developmental paths. It called for 'restructuring' of development projects meant for the PVTGs by bringing projects for PVTGs through Conservation-cum-Development (CCD) implemented by special agencies and the 'micro-projects' supported by the MoTA under a single umbrella.

In 2015, the MoTA, under the new government, evolved the 'Scheme of the Development of PVTGs', a revised version of the fully funded Central Sector Scheme, which was in place since 1998–99. The revised Scheme adopted what is called the 'habitat development approach' or the *Vanbandhu Kalyan Yojana*. It aimed at "planning socio-economic development" while "intervening in all spheres of their social and economic life so that a visible impact is made in the improvement of the quality of life of PVTGs". This Scheme emphasises 'optimisation of resources' and adopts a 'strategic', 'need-based' and 'flexible' approach, wherein it

allows the respective states to prioritise areas of intervention and devise programmes suitable for the specific groups and their socio-cultural milieu. It outlines the scope of the scheme listing broad areas of possible intervention such as livelihoods, economy, education, health, access to safe drinking water, electricity, infrastructure such as irrigation and road connectivity, housing, and social security, among others. The Ministry expects each of the 18 states concerned and the UT of Andaman and Nicobar Islands to prepare a five-year CCD plan for each of the PVTGs aimed at bringing about measurable improvements in human development and infrastructure. The scheme for development of PVTGs through the CCD plans implemented as 'micro-projects' by local agencies such as ITDPs and ITDAs, and Panchayat Raj institutions, among others, is fully funded by the Central government.

This scheme, implemented in 2015, seems to be evolving in due course as the revised rules of the scheme in 2019 suggest. The budget allocation to the states under the scheme is now based on the share of the PVTG population inhabiting the state as compared to the all-India PVTG population, with at least Rs 50 lakh per group being allocated in the case of states with very low share of these groups. Among its other stipulations, the scheme now also emphasises the need for ensuring the habitat rights of PVTGs secured in the FRA. However, on the face of it, the allocated funds seem to be too modest to ensure any significant impact and outcomes. Barring a few cursory assessments (Guru 2015; Vikas Anvesh Foundation 2018), there are no systematic studies of the implementation and the impact of this development scheme for PVTGs as yet.

8.6.1 The Baiga of Madhya Pradesh: Case Study of a PVTG

As part of this project, a small survey of 118 households was conducted among the Baiga, a PVTG in Madhya Pradesh. With a population of nearly 3 lakhs, this group is spread across six districts in the eastern region of the state. This survey was conducted in two of these districts, namely, Anuppur and Dindori.

In the past, the Baigas who inhabited hilly forest terrains in the central region were semi-nomadic, and dependent on food hunting, fishing, and the

collection of forest produce besides shifting cultivation (Elwin 1939). Elwin describes the nomadism among the Baigas in the context of their sense of property and inheritance as follows: “They are nomadic by tradition and by habit, and even in these more settled times find it hard ... to remain in one place for long. The practice of bewar [shifting cultivation] does not foster the sense of attachment to particular bits of land or require the accumulation of cattle” (Elwin 1939: 78).

The Baigas were also highly acclaimed for their exceptional hunting skills. Both their hunting and shifting cultivation had come under restrictions since the second half of the nineteenth century, and they were gradually forced into settled agriculture.¹³

Box 8.3

Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN)

PM JANMAN mission, launched in November 2023 stated its vision of “uplifting” PVTGs which represent “alarming socio-economic conditions and “graduating them above the poverty line by providing basic infrastructural facilities like pakka house, road connectivity, drinking water, electricity connection, health facility, education, etc and livelihood opportunities through Van Dhan Vikas Kendras (VDVKs), etc”.

This programme recognized “the unavailability of data” related to these groups, and noted that they “have been overlooked and have been left out in various developmental schemes of government”. Basic infrastructural gaps for PVTGs were quite large: PVTGs households without pucca houses were 4.9 lakhs, without tap water supply were 4.4 lakh, without electricity 2.65 lakhs among other things.

By July 2024, Rs. 5334 crores were sanctioned for various interventions across Ministries towards sanctioning of pucca houses, roads, hostels, Anganwadi centres, Mobile Medical Units, piped water supply, electricity and so on according to the information compiled by the MoTA gathered from across the line Ministries.

Elwin notes in anguish: “The golden days are gone. The old skill is largely perished... The game laws of modern times have pressed almost as hard on the Baiga as the restrictions on bewar and have helped to alter their whole character. A nomadic tribe living on the fruits of the chase, the rich harvests of shifting cultivation, and the natural gifts of the forests, is slowly being changed by the administrative action into a low and degraded caste of Hindu cultivators” (Elwin 1939: 84). Elwin also witnessed the impact of the use of the plough and settled cultivation on the Baigas’ beliefs and livelihoods and remarked that this had caused deep “psychological and economic impoverishment” among them (Elwin 1964: 142–148).¹⁴ This process of shift away from bewar and hunting among the Baigas was complete after Independence, along with their impoverished experience. Writing again in the early 1960s, Elwin notes, “[t]hey have today sunk into the position of impoverished and inferior cultivators.... They have lost much of what used to make life so rich and enjoyable” (1964: 148).

This group has also faced displacement because of the establishment of Kanha National Park in the region. Further, the new guidelines of the National Tiger Conservation Authority have resulted in the eviction of Baiga villages since 2005. Recently, in 2016 it was reported that 27 villages were forcibly evicted from the core forest area, and thus the inhabitants of these villages lost their habitat and livelihoods.¹⁵

According to Census 2011, Bigas of MP have a slightly higher worker participation ratio (51.4) than for all STs (48.7), but higher share of marginal workers (51 per cent) than STs at large (35 per cent). They are mostly marginalised as agricultural labourers (53 per cent) with a smaller share of cultivators (28 per cent). The primary survey of a small sample in Anuppur and Dindori districts shows that the main source of livelihood for a majority of the Baiga households is small-scale settled cultivation along with wage labour in farm

13 Elwin (1964: 148) notes, “From 1867 to the end of the century the unfortunate Baigas were pursued by the zealous forest officers, determined to stop their axe-and-hoe cultivation and take to plough. At the same time much of their hunting was stopped and some of them were even forced to make heaps of their precious bows and arrows and burn them.”

14 This led Elwin to question the forest policy on shifting cultivation, which he also later studied in other parts of India (see Elwin 1964).

15 Rakesh Ranjan reports, “They were first shifted from the core area to the buffer zone and later they were asked to vacate the buffer zone too. Disconnected from the forests, they face a desperate future” (see <https://www.indiatoday.in/mail-today/story/madhya-pradesh-baiga-tribe-face-desperate-future-as-forest-slips-out-of-hand-13686-2016-06-12>).

and non-farm activities, and collection of minor NTFP. They cultivate mostly food grains under rain-fed conditions, which caters to part of their subsistence needs. Income generation from either cultivation or other activity is very low. The main sources of income of the Baigas from the primary survey are presented in Table 8.7. While most of the households engage in diverse activities, agriculture forms the main source of income for about three-fourths of them. Casual wage in agriculture and non-farm activities and sale of NTFP are the main sources of income for about 14 per cent and 7 per cent of the Baiga households, respectively. The significance of agriculture and wage labour among the contemporary Baigas mirrors a radical shift in their livelihoods from food hunting and gathering and dependence on forests. However, the current economic activities of the Baigas fetch little beyond subsistence. Some of the younger members of the households migrate to towns for work, where they are informally employed in sectors like construction. At least one member from 18 per cent of the Baiga households had migrated for a minimum of three months during the previous year. The earnings of these migrants are mostly spent, even when remitted, on the daily consumption needs of the households.

Changes in livelihood activities and the meagre incomes of the Baiga households seem to reflect the poor status of their socio-economic well-being and nutritional status (Sharma and Dwivedi 2007; Jhariya et al. 2013). Studies show that the Baiga population suffers from malnourishment, with a large share of its children being underweight (Chakma et al. 2009; 2014; Shirisha 2019). The main causes of the nutritional insecurity among the Baigas are reduction in access to traditional food items, lack of dietary diversity, and deficiency of proteins and other micro-nutrients (Shirisha 2019). The shift towards food grains offered through the PDS seems to offer protection for calories and carbohydrates, though it may have reduced nutritional diversity and self-sufficiency. The IHD survey recorded that almost all the households accessed food grains through PDS, which shows that the performance of PDS has been better in recent years. However, about 8 per cent did not have a ration card to access the PDS. The timely issuance of ration cards to new families, besides strengthening the ICDS and the mid-day meal scheme in schools and other mechanisms for nutritional supplementation, can avoid risking food security.

The Baigas also continue to suffer deprivation in material conditions and access to amenities, with 90 per cent of their households living in either in *kutcha* or semi-*kutcha/pucca* houses. All the households depend primarily on wood for domestic fuel and only about 20 per cent of them have LPG as a secondary source of fuel. Domestic electricity is still a precious facility. Although a large number of villages have received connectivity, the power supply is irregular, and power cuts are sometimes reported to extend from five to ten days. Of the households surveyed, 20 per cent did not have domestic electric connections, and nearly 15 per cent of the existing connections were dysfunctional, in addition to the problem of irregular supply for all. One-fourth of the Baiga households also have no access to toilets despite the large-scale creation of private toilet facilities across the country.

The Baiga households possess very few assets, including consumer durables, and lack even basic items such as electric fans, gas stoves, and television sets: only about 4 per cent of the households have a fan, 11 per cent own a TV, and 20 per cent have a gas stove. Significantly, about 17 per cent of the households have a bicycle and 12 per cent own motorcycles. The spread of communication technologies in the form of mobile phones and their usage has been noteworthy, with about 65 per cent of the households reporting ownership of mobile phones. However, advanced technological devices, such as computers, are rare or exceptional with just one household reportedly owning a computer.

Educational levels are significantly low among the Baigas though enrolment levels of their children in school have improved in the recent years. Census 2011 revealed a marked difference in literacy rates for Baigas with only 39 per cent of literates among the population aged 7 years and above, while it was 49.5 per cent for all STs; the share of those who completed secondary level of education was merely 1.3 per cent and graduation and above was negligible at 0.2 per cent and the corresponding figures for all STs were 4.5 per cent and 1.7 per cent respectively. Primary survey conducted in 2020 shows that still only 2 per cent of the households had members who had completed higher education (see Table 8.8). In one-third of the total households, not a single member has crossed beyond the primary level of education and all of the members in some of

Table 8.7: Share of households among the Baiga drawing their main source of income from various activities

	Anuppur	Dindori	Total
Sale of NTFP	7.3	6.3	6.8
Own-account agriculture	78.2	74.6	76.3
Casual labour in agriculture	1.8	6.3	4.2
Own-account, non-farm activity (other than livestock rearing)	3.6	0.0	1.7
Casual labour in non-farm sector	9.1	11.1	10.2
Regular wage (salary) in private sector	0.0	1.6	0.8
Total	100.0	100.0	100.0

Source: IHD Survey 2020.

these households have had no formal education; only one-fifth of the households have at least one person who has completed either the secondary or higher secondary level of education. Currently, however, about 90 per cent of the children in the age group of 5–14 years are attending schools. Thus, sustained efforts are needed on the education front among this group to ensure the successful transition of school enrolments into higher education.

8.7 Concluding Remarks and Way Forward

The PVTGs have suffered the most as a result of 'developmental' policies that have adversely affected their forest habitats, and the livelihoods based on these habitats, through deforestation and displacement. Forest and wildlife policies too, instead of placing the forest inhabitants and their livelihoods equally at the centre of 'conservation' policies, sought to actively displace and exclude them while establishing reserve forests, tiger reserves, national parks, and sanctuaries. These incursions have brought about drastic changes in their habitats, economic activities, livelihoods and lifestyles, while

increasing their contact with other groups. These changes have, in turn, created and heightened the vulnerabilities of PVTGs by threatening their food systems, nutrition, health, and survival. Cultural discrimination, economic exploitation, and denial of rights to livelihoods and rights in developmental processes have accompanied their vulnerabilities and marginalisation.

The preceding review of literature, population data, and the primary data from a survey of the Baigas suggest that a small proportion of the ST population identified as PVTGs more than 40 years ago could not be brought on par with the remaining sections of the STs, let alone bridging the development gaps between them and other better-off social groups. The recognition of PVTGs as the most vulnerable groups among the STs and the call for special attention could well have been an opportunity to promote concerted efforts to substantially enhance the well-being of these small groups. Such small-scale efforts focusing on individual groups could have evolved as development models, while providing lessons and experiences in planning for the STs as a whole.

Table 8.8: Percentage distribution of the population by Level of Education of the Highest Educated Household Member

	Below primary	Primary	Middle	Secondary and senior secondary	Graduation	Total
Anuppur	7.3	25.5	49.1	18.2	0.0	100.0
Dindori	17.5	14.3	41.3	22.2	4.8	100.0
Total	12.7	19.5	44.9	20.3	2.5	100.0

Source: IHD Survey 2020.

However, this is not to undermine the government initiatives and efforts made in this direction so far, nor to gloss over the complexities and specificities in addressing issues pertaining to each group. Further, after the recognition of these groups and their vulnerabilities, most of the groups have continued to experience a change in their habitats, livelihoods, and lifestyles. This calls for continued attention to their changing needs and vulnerabilities while respecting their agency and capacity to choose particular lifestyles. There has been a broad consensus on the contours of the development approach. It has underscored the protection and promotion of their rights to habitat and livelihood, along with instituting systems to secure their well-being in terms of health and nutrition, and to promote education and employment opportunities for them. There is no convincing evidence of any improvement with regard to their rights to habitat, notwithstanding some efforts in granting land rights under FRA. On other dimensions of development, some incremental changes have taken place in terms of increasing their access to food through PDS and universal school education. However, the situation related to health and nutrition of many of these vulnerable groups appear to be severely lacking.

The policy that is currently in place has drawn from experience, recognising the special needs of each group and rightly providing a flexible policy space for bottom-up micro-level projects to address the developmental concerns of each PVTG. However, broadly, the impact in terms of the developmental outcomes across groups seems to be far from desired. This is because of the lack of a systematic evaluation and documentation of what has worked and what has not, to draw lessons from them. On the face of it, the budgetary allocations for the PVTGs seem to be meagre and insufficient for achieving any tangible and sustained impact.

Currently, a majority of these groups engage in multiple subsistence economic and livelihood activities, such as collection of minor forest produce, small-scale cultivation, and farm and non-farm wage labour. Some of these groups also engage in utilitarian crafts like making baskets, leaf plates, and ropes, among other such items; food hunting; livestock rearing; fishing; and so on. While some of them have been completely displaced from their original habitats, some others continue to live in proximity to their habitats but with depleted resources.

What needs to be done specifically besides emphasising and securing the non-negotiable and unfettered rights of the vulnerable groups to their habitat, lives, lifestyles, and livelihoods? The following recommendations provide some answers.

- One, a comprehensive strategy around livelihoods needs to be designed recognising the varied subsistence and income-generating activities of the PVTGs and the changes in their habitats, even while seeking to restore their customary rights. The FRA, to an extent, sought to undo the injustice meted out to the forest inhabitants and recognised the customary rights of the PVTGs to their forest habitats, including 'community tenures of habitat and habitation'. The new 'Scheme for Development of PVTGs', which is currently in place, should prioritise this area and monitor its progress. It is well recognised that FRA alone has limited jurisdiction as a large part of the PVTG habitats is outside forests. The land and livelihood rights of the PVTGs need to be secured using PESA and by mobilising State resources. The new scheme outlines 'distribution of land' among these groups as a possible policy for individual groups to be proposed by the States. Unless there is a big push by the governments for addressing the land and livelihood rights of these groups by using both FRA and PESA, and by acquiring and allocating substantial tracts of land and tenurial rights, the PVTGs will be deprived of compensatory justice and development.
- Two, the livelihood and income-generating strategies among the PVTGs should go hand in hand with the restoration, conservation, and promotion of their food systems, nutritional diversity, and biodiversity. The food insecurity among these groups should be addressed by devising incentives and supporting the production of erstwhile local items of food in consonance with existing schemes like the PDS, ICDS, and the mid-day meals at schools. Such initiatives should be aimed at both diversification of the food basket among these groups and also income generation through sale in markets supported by government agencies. The government is investing in natural and organic cultivation practices and products among Indian farmers. The ST communities have been involved in organic production by default, which needs to be augmented for the welfare of PVTGs. The

existing micro-projects among the PVTGs can also creatively tap this opportunity by promoting the indigenous varieties of food grains and other food items.

- Three, it is imperative to eliminate the actual and potential stigmatisation and discrimination against the PVTGs. The change of nomenclature from 'primitive' tribal groups to 'particularly vulnerable' tribal groups was a welcome move to ensure that these groups are not considered as inferior. Notwithstanding this change, they continue to be implicitly characterized as some survivals of the past—often referred to as people engaged in 'prehistoric' activities like hunting and gathering or nomadism or those practising 'pre-agricultural' technologies. This characterisation highlights the prevalent prejudice against these groups and their objectionable representation both in official terminology and in academic research. Depiction of any contemporary livelihood and technological status as a 'level' or 'stage' in prehistory is an objectionable representation, which are forms of livelihoods and lifestyles in their own right. of these groups, which continues today not only in official terminology but academic research as well. The identifying features of the vulnerability of these groups thus need to be revisited and reframed. Food hunting or gathering, collection of forest produce, and their traditional cultivation practices should be considered as different modes of production and subsistence, worthy of both respect and preservation.
- Four, it must be ensured that all the PVTGs are notified as Scheduled Tribes: There remains confusion on the ST status of some of the groups, which deprives them from the benefit of affirmative and developmental provisions secured in policy for the STs. This issue needs urgent redressal to include the eligible groups in the list of STs.
- Five, reliable population data and other demographic details of PVTGs need to be captured and assessed. While there are serious concerns about the declining population of some of the PVTGs, discrepancies have been noted in the Census population data of these groups. It has been recognised that the regular Census does not sufficiently capture the population of these groups, resulting in enumeration

issues. Although some states have conducted baseline population surveys, there were issues of exclusion of groups and households within, and outside micro-project areas as pointed out in case of Odisha. A standardised module canvassed at the same time across groups will provide data to track and monitor the demographic changes, health, and survival issues of these groups. A special drive needs to be undertaken to capture reliable Census statistics and the demographic details of PVTGs in the entire country, and the forthcoming Census 2021 should be seen as an opportunity for fulfilling this objective.

- Six, there is need for systematic documentation of socio-economic and developmental dimensions of all the groups on a regular basis. The developmental initiatives can rightly be decentralised, planned in a bottom-up fashion, and be made sensitive to the groups' needs. Simultaneously, however, there is a need for centralised efforts to monitor and track the developmental outcomes for the PVTGs by consolidating the experiences of all the groups and comparing them in terms of standard indicators in the critical areas of health, nutrition, education, and population. Comparing the vulnerability and development indicators can draw attention on these groups and the issues that need to be prioritised. This can also help promote a more rigorous research and documentation of the historical trajectories of the groups.
- Finally, the most urgent issue concerning the PVTGs pertains to their health and survival. While part of the problem is concerned with food and nutritional security, as discussed above, in addition, securing the health of these groups necessitates continuous monitoring of the diseases afflicting them and the provision of a sufficient health infrastructure for them.

To conclude, the well-being and developmental concerns of PVTGs call for prioritisation of their rights by the government, but the current budgetary allocations do not reflect such urgency. Only increased planning and spending in accordance with the extent of vulnerability among the PVTGs can bring about substantial improvements among these groups.

APPENDIX TABLES

Table A.8.1: State-wise list of PVTGs

No.	States/UTs	Name of the PVTG	Population					
			1961	1971	1981	1991	2001	2011
1	Andhra Pradesh	1. Chenchu	17,609	24,178	28,434	40,869	49,232	64,227
		2. Bodo Gadaba	21,840	25,108	27,732	33,127	36,078	38,081
		3. Gutob Gadaba	-	-	-	-	-	-
		4. Dongria Khond	21,754	34,382	39,408	66,629	85,324	1,03,290
		5. Kultia Khond	-	-	-	-	-	-
		6. Kolam	16,731	26,498	21,842	41,254	45,671	44,912
		7. Konda Reddi	35,439	42,777	54,685	76,391	83,096	1,07,747
		8. Kondasavara	-	28,189	-	-	-	1,39,424
		9. Bondo Porja	-	-	-	-	-	-
		10. Khond Porja	9,350	12,347	16,479	24,154	32,669	-
		11. Parengi Proja	-	-	-	-	-	36,502
		12. Thoti	546	1,785	1,388	3,654	2,074	4,811
	Total	1,23,269	1,95,264	1,89,968	2,86,078	3,34,144		
2	Bihar (including Jharkhand up to 1991; only Bihar for 2001)	13. Asur	5,819	7,026	7,783	9,623	181	4,129
		14. Birhor	2,438	3,461	4,377	8,083	406	377
		15. Birjia	4,029	3,628	4,057	6,191	17	208
		16. Hill Kharia	1,08,983	1,27,002	1,41,771	1,51,634	1,501	11,569
		17. Korwa	21,162	18,717	2,19,940	24,871	703	452
		18. Mal Paharia	45,423	48,636	79,322	86,790	4,631	2,225
		19. Parhaiya	12,268	14,651	24,012	30,421	2,429	647
		20. Sauria Paharia	55,605	59,047	39,269	48,761	585	1,932
		21. Savar	1,561	3,548	3,014	4,264	420	80
	Total	2,57,288	2,85,716	5,23,545	3,70,638	10,873		
3	Gujarat	29. Kolgha	-	29,464	62,232	82,679	48,419	67,119
		30. Kathodi	-	2,939	2,546	4,773	5,820	13,632
		31. Kotwalia	-	12,902	17,759	19,569	21,453	24,249
		32. Padhar	-	4,758	10,587	15,896	22,421	30,932
		33. Siddi	-	4,482	5,429	6,336	8,662	8,661
		Total	-	54,545	98,553	1,29,253	1,06,775	
4	Jharkhand	34. Asur	-	-	-	-	10,347	22,459
		35. Birhor	-	-	-	-	7,514	10,726
		36. Birjia	-	-	-	-	5,365	6,276
		37. Hill Kharia	-	-	-	-	1,64,022	1,96,135
		38. Korwa	-	-	-	-	27,177	35,606
		39. Mal Paharia	-	-	-	-	1,15,093	1,35,797
		40. Parhaiya	-	-	-	-	20,786	25,585
		41. Sauria Paharia	-	-	-	-	31,050	46,222
		42. Savar	-	-	-	-	6,004	9,688
		Total	-	-	-	-	3,87,358	

No.	States/UTs	Name of the PVTG	Population					
			1961	1971	1981	1991	2001	2011
5	Karnataka	43. Jenu Kuruba	3623	6656	34,747	29,371	29,828	36,076
		44. Koraga	6382	7620	15,146	16,322	16,071	14,794
		Total	10,005	14,276	49,893	45,693	45,899	
6	Kerala	45. Cholanai- kayan	-	306	234	-	-	124
		46. Kadar	-	1120	1503	2021	2145	2949
		47. Kattunay- ankan	-	5565	8803	12,155	14,715	18,199
		48. Koraga	-	1200	1098	1651	1152	1582
		49. Kurumba	-	1319	1283	1820	2174	2586
		Total	-	9510	12,921	17,647	20,186	
7	Madhya Pradesh (including Chhattisgarh)	50. Abujh Maria	11,115	13,000	15,500	-	-	50,93,124
		51. Baiga	-	6194	2,48,949	3,17,549	3,32,936	4,14,526
		52. Bharia	-	1589	1614	-	-	1,93,230
		53. Birhor	513	738	561	2206	143	52
		54. Hill Korwa	23,605	67,000	19,041	-	-	-
		55. Kamar	-	13,600	17,517	20,565	2424	666
		56. Sahariya	1,74,320	2,07,174	2,81,816	3,32,748	4,50,217	165
		Total	2,09,553	3,09,295	5,84,998	6,73,068	7,85,720	
8	Maharashtra	57. Katkari/ Kathodi	-	1,46,785	1,74,602	2,02,203	2,35,022	2,85,334
		58. Kolam	-	56,061	1,18,073	1,47,843	1,73,646	1,94,671
		59. Maria Gond	-	53,400	66,750	-	-	16,18,090
		Total	-	2,56,246	3,59,425	3,50,046	4,08,668	
9	Manipur	60. Maram Naga	-	5123	6544	9592	1225	27,524
		Total	-	5123	6544	9592	1225	
10	Orissa	61. Chuktia Bhunjia	-	-	-	-	-	2378*
		62. Birhor	-	248	142	825	702	596
		63. Bondo	-	3870	5895	7315	9378	12,231
		64. Didayi	-	3055	1978	5471	7371	8890
		65. Dongria Khond	-	2676	6067	-	-	6306*
		66. Juang	-	3181	30,876	35,665	41,339	47,095
		67. Khari3a	-	1259	1259	-	-	2,22,844
		68. Kutia Khond	-	3016	4735	-	-	7232
		69. Lanjia Saura	-	4233	8421	-	-	5960*
		70. Lodha	-	1598	5100	7458	8905	9785
		71. Mankirdia	-	133	1005	1491	1050	2222
		72. Paudi Bhuyan	-	4424	8872	-	-	5788*
		73. Saura	-	2845	2917	-	-	5,34,751
		Total	-	30,538	77,267	58,225	68,745	
11	Rajasthan	74. Saharia	23,125	26,796	40,945	59,810	76,237	1,11,377
		Total	23,125	26,796	40,945	59,810	76,237	

No.	States/UTs	Name of the PVTG	Population					
			1961	1971	1981	1991	2001	2011
12	Tamil Nadu	75. Irular	79,835	89,025	1,05,757	1,38,827	1,55,606	1,89,661
		76. Kattunay- akan	6459	5042	26,383	42,761	45,227	46,672
		77. Kota	833	1188	604	752	925	308
		78. Korumba	1174	2754	4354	4768	5498	6823
		79. Paniyan	4779	6093	6393	7124	9121	10,134
		80. Toda	714	930	875	1100	1560	2002
		Total	93,794	1,05,032	1,44,366	1,95,332	2,17,937	
13	Tripura	81. Riang	56,579	64,722	84,004	1,11,606	1,65,103	1,88,220
		Total	56,579	64,722	84,004	1,11,606	1,65,103	
14	Uttar Pradesh (including Uttarakhand up to 1991; only Uttar Pradesh for 2001)	82. Buksa	-	-	31,807	34,621	4367	4710
		83. Raji	-	-	1087	1728	998	2241
		Total	-	-	32,894	36,349	5365	
15	Uttarakhand	84. Buksa	-	-	-	-	46,771	4710
		85. Raji	-	-	-	-	517	1295
		Total	-	-	-	-	47,288	
16	West Bengal	86. Birhor	-	-	658	855	1017	2241
		87. Lodha	-	45,906	53,718	68,095	84,966	1,08,707
		88. Toto	-	-	675	-	-	66,627
		Total	-	45,906	55,051	68,950	85,983	-
17	Andaman & Nicobar Islands	89. Great Andamanese	-	-	42	32	43	44
		90. Jarawa	-	-	31	89	240	380
		91. Onge	-	-	97	101	96	101
		92. Sentinelese	-	-	-	24	39	15
		93. Shom Pen	71	212	223	131	398	229
		Total	71	212	393	377	816	-
All India		Grand Total	7,73,684	14,03,181	22,60,767	24,12,664	27,68,322	

Note: Office of RGI and Census Commission of India as quoted in the 'Statistical Profile of Scheduled Tribes in India', 2013, MoTA, Government of India

Tables A.8.2: Completed Educational levels across individual PVTGs

States/ UTs.	Name of PVTG	Matric/Secondary (%)			Higher Secondary/Intermediate/ Pre-University/Senior Secondary (%)			Graduate and above (%)		
		P	M	F	P	M	F	P	M	F
UTTARAKHAND	Buksa	4.0	5.2	2.8	1.7	2.1	1.2	1.0	1.4	0.6
	Raji	4.1	5.5	2.5	2.2	3.0	1.2	3.3	4.1	2.5
RAJASTHAN	Sahariya	1.1	1.7	0.5	0.4	0.7	0.1	0.1	0.2	0.0
UTTAR PRADESH	Buksa	2.4	3.3	1.5	1.4	1.8	1.0	1.4	2.3	0.5
	Raji	4.8	5.9	3.5	2.6	3.3	1.8	2.2	2.4	2.0
BIHAR	Asur	1.9	2.7	1.0	1.0	1.4	0.6	0.9	1.2	0.5
	Birhor	1.9	3.2	0.5	2.1	2.1	2.1	0.8	1.1	0.5
	Birjia	5.3	7.1	3.2	1.4	1.8	1.1	0.5	0.9	0.0
	Hill Kharia	5.2	7.2	3.2	3.0	4.1	1.9	2.0	2.9	1.1
	Korwa	0.2	0.4	0.0	1.3	1.3	1.4	2.4	1.7	3.2
	Mal Paharia	5.4	7.9	2.7	3.5	4.3	2.6	1.5	2.2	0.7
	Parhaiya	1.5	2.2	0.9	1.4	2.2	0.6	0.2	0.0	0.3
	Sauria Paharia	3.9	4.2	3.5	2.7	3.1	2.3	1.0	1.6	0.4
	Savar	0.0	0.0	0.0	2.5	4.5	0.0	1.3	2.3	0.0
MANIPUR	Maram	9.1	10.3	7.9	5.6	6.2	5.0	3.9	4.5	3.2
TRIPURA	Riang	2.8	3.8	1.8	1.7	2.5	1.0	0.4	0.6	0.2
WEST BENGAL	Toto	8.3	8.5	8.1	8.6	9.1	8.2	7.9	8.3	7.4
	Birhor	2.2	1.9	2.5	3.1	3.9	2.3	1.2	1.4	0.8
	Lodha	1.2	1.5	0.9	0.9	1.1	0.7	0.4	0.5	0.3
JHARKHAND	Asur	2.0	3.1	1.0	1.1	1.5	0.6	0.3	0.5	0.2
	Birhor	0.7	1.0	0.4	0.2	0.3	0.2	0.1	0.1	0.0
	Birjia	2.6	3.8	1.4	1.4	1.7	1.1	0.3	0.3	0.3
	Hill Kharia	6.2	7.3	5.2	4.4	4.8	4.0	2.9	3.3	2.6
	Korwa	0.9	1.2	0.6	0.5	0.6	0.3	0.1	0.2	0.0
	Mal Paharia	1.2	1.8	0.7	0.5	0.8	0.2	0.2	0.2	0.1
	Parhaiya	0.5	0.8	0.2	0.2	0.2	0.1	0.1	0.1	0.0
	Sauria Paharia	1.6	2.4	0.9	0.7	1.0	0.4	0.2	0.2	0.1
	Savar	1.7	2.2	1.1	0.9	1.3	0.6	0.5	0.8	0.1
ODISHA	Bhunjia	1.8	2.6	0.9	0.6	1.0	0.3	0.2	0.3	0.2
	Birhor	1.7	2.1	1.3	0.3	0.7	0.0	0.5	0.0	1.0
	Bondo	1.1	1.7	0.5	0.7	1.1	0.4	0.2	0.4	0.0
	Didayi	0.2	0.4	0.1	0.2	0.4	0.1	0.1	0.2	0.0
	Juang	0.8	1.1	0.4	0.3	0.5	0.1	0.2	0.3	0.0
	Kharia	5.6	6.6	4.7	2.5	2.8	2.2	1.2	1.4	1.0
	Dungaria Kondh	1.9	2.6	1.2	0.9	1.4	0.5	0.4	0.6	0.2
	Kotia	2.0	2.8	1.3	1.1	1.4	0.9	0.5	0.7	0.3
	Lodha	1.4	1.9	1.0	0.6	0.8	0.3	0.2	0.3	0.1
	Mankirdia	0.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0
	Saura, Lanjia Saora	3.0	4.0	2.0	1.5	2.2	0.8	0.5	0.9	0.2
	Bhuyan	5.5	6.9	4.1	2.6	3.3	2.0	1.3	1.8	0.8

States/ UTs.	Name of PVTG	Matric/Secondary (%)			Higher Secondary/Intermediate/ Pre-University/Senior Secondary (%)			Graduate and above (%)			
		P	M	F	P	M	F	P	M	F	
UTTARAKHAND	Buksa	4.0	5.2	2.8	1.7	2.1	1.2	1.0	1.4	0.6	
CHHATTISGARH	Baiga	0.9	1.2	0.5	0.5	0.8	0.2	0.1	0.2	0.0	
	Bharia	1.5	2.0	1.1	1.0	1.4	0.5	0.4	0.7	0.2	
	Birhor	0.3	0.4	0.1	0.0	0.1	0.0	0.0	0.1	0.0	
	Abujh Maria (Gond, Arakh, Arrakh, Agaria, Asur, Badi Maria, Bada Maria, Bhatola, Bhimma, Bhuta, Koilabhuta, Koliabhuti, Bhar, Bisonhorn Maria, Chota Maria, Dandami Maria, Dhuru, Dhurwa, Dhoba, Dhulia, Dorla, Gaiki, Gatta, Gatti, Gaita, Gond Gowari, Hill Maria, Kandra, Kalanga, Khatola, Koitar, Koya, Khirwar, Khirwara, Kucha Maria, Kuchaki Maria, Madia, Maria, Mana, Mannewar, Moghya, Mogia, Monghya, Mudia, Muria, Nagarchi, Nagwanshi, Ojha, Raj, Sonjhari, Jhareka, Thatia, Thotyia, Wade Maria, Vade Maria, Daroi)	3.3	4.3	2.3	2.3	3.3	1.3	1.0	1.6	0.5	
	Kamar	0.6	1.0	0.3	0.4	0.6	0.1	0.1	0.1	0.1	
	Korwa	0.8	1.2	0.5	0.5	0.7	0.2	0.2	0.2	0.1	
	Sahariya	13.3	18.5	6.8	8.5	10.9	5.5	10.3	9.8	11.0	
	MADHYA PRADESH	Baiga	1.3	1.9	0.7	0.6	1.0	0.2	0.2	0.3	0.1
		Bharia	1.1	1.6	0.7	0.5	0.8	0.3	0.2	0.3	0.1
		Birhor	15.4	14.8	16.0	7.7	7.4	8.0	1.9	3.7	0.0
Abujh Maria (Gond, Arakh, Arrakh, Agaria, Asur, Badi Maria, Bada Maria, Bhatola, Bhimma, Bhuta, Koilabhuta, Koliabhuti, Bhar, Bisonhorn Maria, Chota Maria, Dandami Maria, Dhuru, Dhurwa, Dhoba, Dhulia, Dorla, Gaiki, Gatta, Gatti, Gaita, Gond Gowari, Hill Maria, Kandra, Kalanga, Khatola, Koitar, Koya, Khirwar, Khirwara, Kucha Maria, Kuchaki Maria, Madia, Maria, Mana, Mannewar, Moghya, Mogia, Monghya, Mudia, Muria, Nagarchi, Nagwanshi, Ojha, Raj, Sonjhari, Jhareka, Thatia, Thotyia, Wade Maria, Vade Maria, Daroi)		3.2	4.1	2.3	1.8	2.5	1.1	1.0	1.4	0.6	
Kamar		7.4	9.3	5.4	5.1	7.2	3.0	4.2	5.4	3.0	
Korwa		2.6	3.1	2.2	2.6	3.1	2.2	2.4	3.1	1.7	
Sahariya		0.5	0.8	0.2	0.2	0.3	0.1	0.1	0.1	0.0	

States/ UTs.	Name of PVTG	Matric/Secondary (%)			Higher Secondary/Intermediate/ Pre-University/Senior Secondary (%)			Graduate and above (%)		
		P	M	F	P	M	F	P	M	F
UTTARAKHAND	Buksa	4.0	5.2	2.8	1.7	2.1	1.2	1.0	1.4	0.6
GUJARAT	Kathodi	1.1	1.4	0.7	0.3	0.4	0.2	0.2	0.2	0.1
	Kolgha	3.9	4.8	3.0	1.8	2.3	1.2	0.7	0.9	0.4
	Padhar	1.5	2.5	0.6	0.5	0.8	0.2	0.2	0.3	0.0
	Kotwalia	2.3	2.8	1.9	1.0	1.3	0.8	0.4	0.5	0.3
	Siddi	5.7	7.7	3.9	1.8	2.6	1.0	0.6	0.7	0.6
MAHARASHTRA	(Maria Gond) Gond, Rajgond, Arakh, Arrakh, Agaria, Asur, Badi Maria , Bada Maria, Bhatola, Bhimma, Bhuta, Koilabhuta, Koilabhuti, Bhar, Bisonhorn Maria, Chota Maria, Dandami Maria, Dhuru, Dhurwa, Dhoba, Dhulia, Dorla, Gaiki, Gatta, Gatti, Gaita, Gond Gowari, Hill Maria, Kandra, Kalanga, Khatola, Koitar, Koya, Khirwar, Khirwara, Kucha Maria, Kuchaki Maria, Madia, Maria, Mana, Mannewar, Moghya, Mogia, Monghya, Mudia, Muria, Nagarchi, Naikpod, Nagwanshi, Ojha, Raj, Sonjhari Jhareka, Thatia, Thotya, Wade Maria, Vade Maria	8.3	9.2	7.5	4.4	5.3	3.5	1.5	1.9	1.1
	Kathodi	0.8	1.2	0.5	0.3	0.5	0.2	0.1	0.2	0.1
	Kolam	6.2	7.0	5.3	4.5	5.6	3.4	3.1	4.4	1.8
ANDHRA PRADESH	Chenchu	2.6	3.3	1.9	1.3	1.8	0.8	0.8	1.1	0.4
	Bodo Gadaba, Gutob Gadaba,	5.7	6.7	4.7	3.5	4.2	2.8	1.7	2.4	1.0
	Kondareddis	6.7	7.4	6.0	3.7	4.4	3.0	3.2	4.2	2.3
	Dongria Kondhs, Kuttiya Kondhs	1.8	2.8	0.9	1.0	1.5	0.5	0.5	0.8	0.2
	Kolam	2.1	2.8	1.4	0.9	1.2	0.6	0.3	0.5	0.1
	Porja	3.2	4.5	1.9	1.8	2.6	1.1	1.3	2.2	0.4
	Thoti	9.1	11.4	7.1	6.5	7.9	5.2	3.4	4.9	2.0
Savaras	5.7	6.9	4.5	3.3	4.3	2.3	1.6	2.5	0.7	
KARNATAKA	Jenu Kuruba	1.6	1.4	1.7	1.5	1.6	1.4	0.4	0.5	0.3
	Koraga	4.0	4.0	4.1	3.3	3.0	3.6	1.0	1.2	0.9
KERALA	Kadar	6.4	6.1	6.7	3.2	3.3	3.1	0.4	0.4	0.4
	Kattunayakan	2.6	2.5	2.7	1.6	1.6	1.6	0.2	0.1	0.2
	Cholanaickan	0.8	0.0	1.9	0.8	0.0	1.9	0.8	0.0	1.9
	Koraga	3.2	3.2	3.1	5.1	5.7	4.6	0.5	0.5	0.5
	Kurumbas	3.5	5.1	1.9	4.2	5.6	2.7	0.5	0.6	0.5

States/ UTs.	Name of PVTG	Matric/Secondary (%)			Higher Secondary/Intermediate/ Pre-University/Senior Secondary (%)			Graduate and above (%)		
		P	M	F	P	M	F	P	M	F
UTTARAKHAND	Buksa	4.0	5.2	2.8	1.7	2.1	1.2	1.0	1.4	0.6
TAMIL NADU	Irular	4.0	4.6	3.4	1.7	2.0	1.4	0.5	0.7	0.4
	Kattunayakan	6.8	7.6	6.1	4.6	4.9	4.2	3.3	3.9	2.6
	Kurumbas	6.4	6.7	6.1	3.2	3.3	3.0	1.3	1.6	1.0
	Kota	12.7	12.3	13.1	12.3	14.8	9.8	12.0	13.5	10.5
	Paniyan	2.1	2.1	2.1	0.7	0.8	0.6	0.4	0.5	0.3
	Toda	12.1	12.9	11.4	6.9	7.2	6.7	5.8	5.9	5.8
ANDAMAN & NICOBAR ISLANDS	Andamanese	4.5	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0
	Jarawas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Onges	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sentinelese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Shom Pens	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Census of India 2011

Tables A.8.3: Literacy Rate, Work Participation Ratios and Share of Marginal Workers across Individual PVTGs

States/ UTs.	Name of PVTG	Literacy (per cent)	WPR	Marginal Worker (per cent)
Andhra Pradesh	Chenchu	40.6	53.6	20.6
	Bodo Gadaba, Gutob Gadaba	47.7	58.7	27.5
	Dongria Khond, Kultia Khond	29.7	58.5	28.9
	Kolam	39	56.6	23.8
	Konda Reddi	55.1	58.5	24.6
	Konda savara	49.7	54.6	38.8
	Bondo Porja, Khond Porja, Parengi Proja	35	58.5	25.8
	Thoti	62.7	50.1	19.3
Gujarat	Kolgha	56.5	51.4	29.8
	Kathodi	36.5	58.4	29.3
	Kotwalia	54.6	60.1	27
	Padhar	41	45.4	11.7
	Siddi	72.3	39	15.2
Bihar	Asur	41.6	42.4	65.8
	Birhor	31	45.4	70.8
	Birjia	39.6	45.7	58.9
	Hill Kharia	55.3	33.7	45.3
	Korwa	32.6	46.5	37.6
	Mal Paharia	61.7	41	49.8
	Parhaiya	32.8	37.7	75.8
	Sauria Paharia	45.8	36.2	39.3
	Savar	61.4	42.5	58.8
Jharkhand	Asur	46.9	47.5	49.5
	Birhor	34.5	47.4	57.4
	Birjia	50.2	49.6	55
	Hill Kharia	65.9	50.6	47
	Korwa	37.9	51	74.4
	Mal Paharia	39.6	49.3	55
	Parhaiya	33.1	45.7	73.8
	Sauria Paharia	39.7	51.6	59.6
	Savar	33.7	48.2	69.2
Karnataka	Jenu Kuruba	56.1	58.2	13.9
	Koraga	72.7	52.7	11.7
Kerala	Cholanai Kayan	19.8	37.9	78.7
	Kadar	71.2	47.5	40.5
	Kattunayakan	57.5	49.2	42.4
	Koraga	77.2	52.8	33.9
	Kurumba	56.3	49.4	13.8
Chhattisgarh	Abujh Maria	56.7	53.1	38.7
	Baiga	40.6	53.5	43
	Bharia	48.5	52.3	48.4
	Birhor	39	57.3	39
	Hill Korwa	38.7	55.2	49.4
	Kamar	47.7	55.1	32.3
	Sahariya	80.9	51.5	12.9

States/ UTs.	Name of PVTG	Literacy (per cent)	WPR	Marginal Worker (per cent)
Madhya Pradesh	Abujh Maria	60.1	51.5	41.6
	Baiga	47.2	51.4	51.3
	Bharia	47.9	49.1	52.6
	Birhor	88.9	26.9	7.1
	Hill Korwa	48.6	42.5	22.5
	Kamar	72	43.5	50.7
	Sahariya	42.1	44.9	35.9
Maharashtra	Katkari/Kathodi	41.7	51.6	30.2
	Kolam	71.1	53.6	14
	Maria Gond	74.7	53.8	24.9
Manipur	Maram Naga	60.4	44.6	15.1
Orissa	Chuktia Bhunjia	44.9	57.5	60.2
	Birhor	47.2	48.8	33
	Bondo	36.5	49.1	48.2
	Didayi	34.6	54.3	44
	Dongria Khond, Kutia Khond	46.9	51.2	54.4
	Juang	42.8	50.8	61.4
	Kharia	58.5	50.2	51.1
	Lanjia Saura	55	52	43.8
	Lodha	43.1	50.3	42.8
	Mankirdia	21.1	50.9	44.5
	Paudi Bhuyan	63.1	48	55.6
	Saura	55	52	43.8
Rajasthan	Saharia	48	48.3	47
Tamil Nadu	Irular	49.1	53.6	27.1
	Kattunayakan	65.8	42	14
	Kota	88	38	7.7
	Korumba	61.5	50.3	17.6
	Paniyan	48.3	52.6	17.8
	Toda	84.2	46.5	7.8
Tripura	Riang	70.2	40.9	36.2
Uttar Pradesh	Buksa	50.6	37.5	50.4
	Raji	35.6	41.2	39.3
Uttarakhand	Buksa	64.2	39.3	37.9
	Raji	65.6	41.6	26.1
West Bengal	Birhor	58.2	47.1	36.1
	Lodha	45.5	49	44.8
	Toto	81.1	36.7	26.3
Andaman & Nicobar Islands	Great Andamanese	89.2	43.2	0
	Jarawa	0	63.2	0
	Onge	57.3	39.6	92.5
	Sentinelese	0	93.3	14.3
	Shom Pen	3.2	1.3	66.7
All PVTGs' Average		50.4	48.6	38.7
All STs Average		59.0	48.7	35.1

Source: Census of India 2011

Tables A.8.4: Sector-wise distribution of workers across individual PVTGs

States/ UTs.	Name of PVTG	% Agricultural														
		% Cultivators			% Agricultural Labourer			% Primary Sector			% Secondary Sector			% Tertiary Sector		
		P	M	F	P	M	F	P	M	F	P	M	F	P	M	F
JHARKHAND	Asur	60.9	54.9	70.2	15.3	13.9	17.5	85.8	83.5	89.5	7.0	9.1	3.7	7.2	7.4	6.8
	Birhor	7.0	6.5	7.9	21.6	22.4	20.1	40.3	41.9	37.3	42.9	40.1	48.0	16.8	17.9	14.7
	Birjia	40.6	41.1	39.8	47.4	45.8	49.8	88.6	88.0	89.6	4.4	5.1	3.3	7.0	6.9	7.1
	Hill Kharia	69.0	71.2	65.1	14.9	13.5	17.2	85.0	85.9	83.3	3.1	3.6	2.2	11.9	10.4	14.5
	Korwa	32.8	35.4	28.2	44.4	41.6	49.6	80.8	80.6	81.3	8.8	10.7	5.3	10.3	8.7	13.4
	Mal Paharia	41.7	45.1	35.4	41.3	37.4	48.5	87.0	87.2	86.4	5.1	5.6	4.0	8.0	7.1	9.6
	Parhaiya	24.4	25.2	22.6	50.0	50.5	48.7	76.5	78.0	73.0	15.2	16.4	12.7	8.3	5.6	14.3
	Sauria Paharia	54.1	59.5	43.1	30.8	26.1	40.4	91.8	93.1	89.0	1.0	1.0	1.0	7.2	5.9	9.9
	Savar	8.7	8.6	8.8	47.7	43.6	56.6	63.6	59.9	71.5	15.8	18.6	10.1	20.6	21.6	18.4
CHHATTISGARH	Baiga	50.0	53.0	45.9	37.6	33.4	43.5	89.1	88.5	90.0	6.5	6.6	6.3	4.4	4.9	3.7
	Bharia	40.8	44.1	33.7	45.5	41.3	54.8	87.4	86.6	89.2	7.2	7.8	6.0	5.4	5.6	4.8
	Birhor	5.4	7.4	3.1	41.8	41.0	42.7	49.0	51.4	46.3	43.0	41.0	45.4	7.9	7.6	8.3
	Abujh Maria	56.3	59.1	51.4	29.2	24.3	37.9	86.9	85.1	90.0	4.4	5.4	2.8	8.7	9.6	7.2
	Kamar	14.3	17.0	11.2	40.7	39.3	42.4	58.0	59.4	56.5	37.6	35.4	40.2	4.3	5.2	3.3
	Sahariya	4.4	2.0	11.8	27.9	19.6	52.9	32.4	21.6	64.7	26.5	27.5	23.5	41.2	51.0	11.8
	Korwa	33.6	38.6	22.7	57.5	52.2	69.0	92.0	91.7	92.6	3.9	4.2	3.4	4.1	4.1	4.0
MADHYA PRADESH	Baiga	28.3	30.7	24.4	52.5	47.6	60.0	83.1	81.3	85.7	10.5	11.8	8.5	6.4	6.8	5.7
	Bharia	17.9	20.2	13.9	59.0	55.4	65.5	80.7	79.6	82.6	12.8	13.4	11.9	6.5	7.0	5.5
	Birhul, Birhor	0.0	0.0	0.0	11.1	11.1	0.0	11.1	11.1	0.0	66.7	66.7	0.0	22.2	22.2	0.0
	Abujh Maria	39.3	42.8	33.3	46.2	41.2	54.6	87.3	86.3	89.0	4.9	5.7	3.6	7.8	8.0	7.5
	Kamar	13.8	12.4	16.7	21.4	18.1	27.8	40.3	34.3	51.9	26.4	30.5	18.5	33.3	35.2	29.6
	Korwa	4.7	5.2	3.7	31.3	31.4	31.2	39.3	40.8	36.7	49.7	48.7	51.4	11.0	10.5	11.9
	Sahariya	20.3	22.7	15.4	64.4	61.8	69.6	90.7	90.6	91.0	5.6	5.9	5.0	3.7	3.6	4.0
MAHARASHTRA	Kathodi, Katkari	5.3	5.6	5.0	60.8	58.6	63.7	70.6	68.9	72.8	22.7	23.8	21.2	6.8	7.3	6.0
	Kolam	25.6	27.9	22.5	59.0	52.2	68.4	85.3	80.9	91.2	4.0	5.3	2.3	10.7	13.8	6.5
	Maria Gond	28.9	30.1	27.1	50.6	44.6	59.6	81.0	76.6	87.6	7.6	10.1	3.8	11.4	13.3	8.6
ODISHA	Bhunjia	54.1	60.0	32.6	25.3	22.1	36.6	79.9	82.7	69.8	8.8	7.2	14.6	11.3	10.1	15.6
	Birhor	4.2	5.3	1.6	39.7	31.1	60.3	67.3	64.2	74.6	19.6	23.8	9.5	13.1	11.9	15.9
	Bondo	79.3	79.3	79.4	10.5	9.2	12.6	90.0	88.7	92.1	2.3	2.4	2.0	7.8	8.9	6.0
	Didayi	79.6	89.3	61.7	17.1	7.1	35.8	96.8	96.4	97.5	0.5	0.7	0.2	2.7	2.9	2.3
	Juang	25.2	29.8	8.7	48.0	44.3	61.1	79.9	80.9	76.6	13.7	13.6	14.0	6.4	5.5	9.5
	Kharia	27.7	32.6	15.4	29.9	27.4	36.2	62.2	64.6	56.2	24.1	22.9	26.9	13.7	12.5	16.8
	Dungaria Kondh, Kutia Khond	48.9	54.9	33.9	33.9	28.4	47.8	84.4	84.8	83.2	7.8	7.9	7.6	7.8	7.3	9.2
	Kotia	73.3	79.6	61.2	18.0	11.2	30.9	91.4	90.9	92.4	2.4	3.1	1.0	6.2	6.0	6.7
	Lodha	7.8	9.4	4.9	43.3	47.0	36.5	69.1	75.5	57.5	21.9	16.2	32.1	9.0	8.3	10.4
	Mankirdia	2.6	2.4	3.0	51.3	47.2	59.8	68.5	68.8	67.8	27.3	27.3	27.1	4.2	3.8	5.0
	Bhuyan	34.6	39.3	19.7	25.1	21.7	35.6	67.4	68.8	62.9	14.3	14.6	13.4	18.3	16.6	23.7
	Saura, Lanjia Saora	35.1	41.5	21.0	46.1	39.6	60.5	83.1	83.2	82.9	8.7	8.4	9.3	8.2	8.4	7.8
RAJASTHAN	Sahariya	25.9	28.0	21.7	60.1	56.8	66.7	88.7	87.8	90.3	5.5	6.0	4.6	5.8	6.2	5.1
TRIPURA	Riang	52.6	53.2	51.1	21.2	19.9	24.8	84.1	83.8	85.1	5.1	5.5	4.2	10.7	10.8	10.7

States/ UTs.	Name of PVTG	% Agricultural Labourer														
		% Cultivators			% Primary Sector			% Secondary Sector			% Tertiary Sector					
		P	M	F	P	M	F	P	M	F	P	M	F	P	M	F
WEST BENGAL	Birhor	8.8	9.3	6.8	33.8	31.5	42.2	51.8	47.4	67.7	16.8	16.6	17.4	31.4	36.0	14.9
	Lodha	5.6	7.5	2.1	50.1	50.9	48.6	84.4	83.0	87.0	8.6	9.9	6.1	7.0	7.1	7.0
	Toto	15.8	16.6	14.1	6.4	6.4	6.4	34.9	33.5	38.0	9.3	11.3	5.1	55.8	55.3	56.8
MANIPUR	Maram	80.5	76.2	84.9	0.8	1.1	0.4	82.3	78.8	85.7	1.1	1.4	0.7	16.7	19.7	13.5
GUJARAT	Kathodi	7.5	9.7	4.4	83.8	81.7	86.9	94.0	94.0	93.9	4.1	4.3	3.8	1.9	1.7	2.3
	Kolgha	23.6	28.2	13.8	56.3	48.2	73.4	81.4	77.1	90.4	10.8	13.6	4.8	7.8	9.2	4.8
	Kotwalia	2.1	2.4	1.6	37.8	35.6	41.2	40.6	38.9	43.1	51.0	51.5	50.3	8.4	9.6	6.6
	Padhar	5.2	6.2	3.3	37.3	40.3	32.1	43.5	47.5	36.4	53.1	48.3	61.4	3.4	4.1	2.2
	Siddi	3.4	3.5	2.8	46.1	41.6	62.6	50.6	46.6	65.7	18.2	20.3	10.5	31.2	33.1	23.7
ANDHRA PRADESH	Chenchu	7.0	8.0	6.0	66.2	61.6	71.4	83.8	82.3	85.4	6.3	7.1	5.3	9.9	10.5	9.3
	Bodo Gadaba, Gutob Gadaba	17.7	19.4	15.6	71.0	68.6	74.0	91.6	91.4	91.9	1.9	2.5	1.2	6.5	6.1	6.9
	Dongria	61.0	67.3	53.8	33.6	28.5	39.4	94.7	95.9	93.4	0.7	0.8	0.5	4.6	3.2	6.2
	Kondhs, Kuttiya Kondhs	49.9	58.3	39.9	42.5	34.0	52.7	93.2	93.4	93.1	1.6	1.6	1.6	5.2	5.1	5.4
	Kolam	31.6	32.9	30.0	55.3	50.9	60.8	87.3	84.3	91.0	2.9	4.1	1.5	9.8	11.6	7.5
	Kondareddis	55.2	59.7	50.3	35.8	31.4	40.6	92.2	92.3	92.1	1.6	1.9	1.3	6.2	5.8	6.6
	Porja	12.6	15.7	8.6	77.5	72.9	83.4	90.8	89.4	92.6	2.4	2.9	1.8	6.8	7.7	5.6
	Savaras	9.6	11.7	7.0	54.8	48.2	62.9	64.6	60.3	69.9	14.9	11.3	19.4	20.5	28.4	10.7
BIHAR	Asur	18.4	21.2	13.3	59.1	56.5	64.0	77.9	78.2	77.3	6.4	4.9	9.0	15.7	16.8	13.7
	Birhor	4.3	5.9	0.0	41.3	29.4	75.0	45.7	35.3	75.0	39.1	44.1	25.0	15.2	20.6	0.0
	Birjia	16.3	21.9	0.0	23.3	28.1	9.1	46.5	53.1	27.3	30.2	28.1	36.4	23.3	18.8	36.4
	Hill Kharia	13.3	14.2	10.7	56.8	56.5	58.0	71.6	71.9	70.7	7.2	8.4	3.8	21.2	19.8	25.5
	Korwa	0.0	0.0	0.0	59.3	56.3	62.5	64.4	64.8	64.1	25.2	26.8	23.4	10.4	8.5	12.5
	Mal Paharia	18.6	20.7	13.4	52.7	51.4	56.0	71.5	72.4	69.4	13.5	14.4	11.2	15.0	13.2	19.4
	Parhaiya	14.8	17.0	0.0	67.2	62.3	100.0	82.0	79.2	100.0	1.6	1.9	0.0	16.4	18.9	0.0
	Sauria Paharia	15.0	15.3	13.1	58.5	59.6	52.5	73.5	74.9	65.6	15.0	15.8	9.8	11.5	9.3	24.6
	Savar	30.8	20.0	66.7	53.8	70.0	0.0	84.6	90.0	66.7	7.7	0.0	33.3	7.7	10.0	0.0
KARNATAKA	Jenu Kuruba	6.3	8.1	4.1	52.3	51.9	52.8	95.2	95.0	95.4	1.2	1.6	0.7	3.7	3.4	3.9
	Koraga	1.8	2.1	1.4	12.8	12.3	13.4	25.0	26.8	22.3	41.8	36.9	49.1	33.3	36.4	28.6
KERALA	Cholanaickan	0.0	0.0	0.0	7.7	9.1	0.0	84.6	100.0	0.0	0.0	0.0	15.4	0.0	100.0	
	Kadar	2.6	3.7	0.7	13.9	15.5	11.2	71.7	70.2	74.2	9.1	10.8	6.1	19.2	19.0	19.7
	Kattunayakan	1.7	1.6	1.7	61.7	60.3	63.7	88.1	87.9	88.5	6.6	6.5	6.7	5.3	5.7	4.8
	Koraga	1.3	1.6	0.8	10.1	14.0	5.0	30.8	44.2	13.4	59.7	44.8	79.0	9.5	11.0	7.6
	Kurumba	36.9	33.4	41.4	41.2	39.6	43.2	87.5	82.6	93.8	5.7	8.6	2.1	6.8	8.9	4.2
TAMIL NADU	Irular	8.7	9.2	8.1	53.4	49.5	58.9	75.5	73.0	78.9	16.3	18.1	13.6	8.3	8.9	7.4
	Kattunayakan	2.1	2.2	1.8	14.3	12.1	18.8	21.0	18.9	25.2	23.4	24.5	21.3	55.6	56.6	53.5
	Kota	7.7	3.0	20.8	6.6	7.5	4.2	27.5	22.4	41.7	30.8	32.8	25.0	41.8	44.8	33.3
	Kurumbas	5.3	6.9	3.3	14.5	14.2	14.8	83.0	80.8	85.9	7.8	8.8	6.4	9.2	10.4	7.7
	Paniyan	1.1	1.3	0.8	34.4	34.6	34.0	92.1	90.4	94.2	4.0	5.5	2.1	3.9	4.0	3.8
	Toda	33.1	36.2	28.4	14.4	13.1	16.6	59.8	63.3	54.4	9.9	10.2	9.5	30.3	26.5	36.1
UTTAR PRADESH	Buksa	11.3	12.4	5.8	47.3	48.4	41.0	60.6	62.9	48.2	11.1	10.9	12.2	28.3	26.2	39.6
	Raji	1.3	1.7	0.0	19.4	25.3	1.3	20.6	27.0	1.3	34.4	35.7	30.4	45.0	37.3	68.4

States/ UTs.	Name of PVTG	% Cultivators			% Agricultural Labourer			% Primary Sector			% Secondary Sector			% Tertiary Sector		
		P	M	F	P	M	F	P	M	F	P	M	F	P	M	F
UTTARAKHAND	Buksa	36.7	38.4	29.6	40.9	38.8	50.2	80.2	79.7	82.3	10.9	12.3	4.6	8.9	8.0	13.2
	Raji	30.1	17.9	54.9	9.3	9.0	9.9	40.3	28.3	64.8	13.0	12.4	14.1	46.8	59.3	21.1
ANDAMAN & NICOBAR ISLANDS	Andamanese	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	25.0	0.0	0.0	0.0	87.5	100.0	75.0
	Jarawas	0.0	0.0	0.0	0.0	0.0	0.0	97.6	97.1	98.2	0.0	0.0	0.0	2.4	2.9	1.8
	Onges	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sentinelese	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Shom Pens	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0

Source: Census of India 2011

Development Issues of the STs of North-east India

Development Issues of the STs of North-east India

9.1 Introduction

Three factors make the STs of North-east India somewhat different from those in the rest of India. First, they constitute a large majority of the populations of some of these states, unlike the STs in peninsular India. The share of the ST population in the North-eastern states, other than Assam, is overwhelmingly high. As per the Census 2011, Mizoram has 94 per cent, Nagaland and Meghalaya, 86 per cent, and Arunachal Pradesh, 69 per cent. The corresponding figures are 41 per cent in Manipur, 34 per cent in Sikkim, and 32 per cent in Tripura. It is only in Assam that they account for just 12 per cent of the state population, which is itself above the national average.

The second factor that distinguishes the STs of North-east India from those in the rest of the country is that, because of their large numbers, they dominate the politics of states, such as Mizoram, Nagaland, Meghalaya, and Arunachal Pradesh. The third factor is that a large part of these States and regions fall under the Sixth Schedule of the Constitution, giving them various powers as communities. The history of the Sixth Schedule is that the ST communities of North-east India, along with the states, other than Assam, have a somewhat different history from that of the STs in peninsular India. As mentioned in Xaxa (2014), they were referred to as the “excluded areas” in British India; while the ST-dominated regions of peninsular India were the “partially excluded” areas of British India.

The resource and human development endowments of the STs in North-east India are also somewhat different from those of the other STs. The STs in

North-east India own more substantial land and forest resources than other STs. The region is also one of high rainfall. Much of the agriculture here is either swidden (*jhum*) or terrace cultivation. And, as seen below, their overall income, health, and educational status are higher than those of the STs in the rest of India. Thus, the difference between the two groups of STs is that those in North-east India have overall achieved entry into the middle-income status through development as opposed to their low-development status in peninsular India. Of course, there is also increasing landlessness among STs in North-east India, particularly in the state of Meghalaya.

All this makes the problems of economic and human development of the STs part of the mainstream development issues of the North-east (other than Assam) as a whole. Consequently, we will be dealing with the development issues of the STs of the North-east hill states and of the hill areas of Assam.

The chapter raises three main issues. First, the STs of the North-eastern states are better placed socially and economically as compared to the STs in the rest of the country. Second, the key development issue in the North-east is to enable an economic transition in the region. And third, this can be achieved through effective tapping of the potential in terms of horticulture, floriculture, livestock, tourism, and cross-border trade, among other things. It seems that two issues limit the possibilities of economic development in the region i.e., institutions and infrastructure—considered in the broadest sense. Therefore, the role of the state, i.e., state governments as well as the Central government,

needs to be examined. Evidence suggests that the State governments of the North-eastern states have become increasingly dependent on the resources transferred by the Central government. Now that the privileges coming from the special category state no longer exist, it is necessary to see how the role of the State can be visualised in the changing context so that the barriers to development in terms of infrastructure and institutions are addressed.

9.2 Background

A feature that is common to the North-eastern states, other than Assam, is that they are all hill economies, which poses a problem of development. This factor makes possible, even necessary, a comparison with Himachal Pradesh, a hill state with a Human Development Index (HDI) that is one of the highest in India. In the rest of this chapter, we will use the term 'North-east' to refer to the hill economies of North-east India. With inter-state economic relations existing in North-east India (for example, bamboo from the hill states, which used to be the raw material for paper mills in Assam), it should be noted that the total population of the North-east is about 4.5 crores, and that only 10 Indian states have a larger population than this. This should mean that if the markets are integrated, there should be a considerable development potential in North-east India (Sarma 2017).

The per capita income (indicated by the per capita Net State Domestic Product [NSDP], Table 9.1) is generally lower in the States of the North-east when compared to the all-India per capita income in 2020-21. The only clear exception is Sikkim, where the per capita income is more than triple (319.9 per cent) that of the all-India per capita income. Mizoram is just above the all-India figure with 111.9 per cent of the all-India per capita Net Domestic Product (GDP) in 2020-21. Arunachal Pradesh is placed 1.5 times above as compared to the all-India level, while all the other states are well below the all-India level. The state of Meghalaya and Mizoram shows a clear deterioration. Mizoram falling from 133.4 per cent in 2017-18 to 111.9 per cent in 2020-21 where as the state Meghalaya it falling from 66.6 per cent in 2017-18 to 65.6 per cent in 2020-21.

Table 9.1: Per capita GSDP as percentage of all-India average

States	Base 2011-12	
	2017-18	2020-21
Arunachal Pradesh	119.3	149.1
Assam	64.6	67.3
Manipur	61.5	68.1
Meghalaya	66.6	5.6
Mizoram	133.4	111.9
Nagaland	87.7	95.6
Sikkim	300.1	319.9
Tripura	86.3	92.8
India*	100	100

Source: <https://m.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook+of+Statistics+on+Indian+States>
downloaded on 10th October 2023.

All the North Eastern states performed better except Meghalaya and Mizoram as compared to All-India between 2017-18 to 2020-21. Arunachal Pradesh and Nagaland, registered highest growth with of 38.6 per cent and 21.0 per cent, respectively, between 2017-18 and 2020-21 (Table 9.2). Once again, the poor performer in terms of growth and per capita income is Mizoram, which is much below the all-India levels, thereby drawing attention to the policies and factors that have led to the virtual stagnation of the state.

Table 9.2: Growth rate of per capita NSDP (in %) (constant prices)

States	Base 2011-12	
	2011-12 to 2017-18	2017-18 to 2020-21
Arunachal Pradesh	25.87	38.6
Assam	42.22	15.6
Manipur	21.65	22.8
Meghalaya	4.92	9.2
Mizoram	83.08	-7.0
Nagaland	26.07	21.0
Sikkim	38.68	18.2
Tripura	56.29	19.3
India*	39.86	10.9

Source: Same as table 9.1

Table 9.3: Malnutrition status of children among STs in north-eastern states and all-India ST (%)

	Stunted (0 to 59 months)	Underweight (0 to 59 months)	Wasted (0 to 59 months)	Anaemia (6 to 59 months)
Arunachal Pradesh	27.9	13.6	13.3	53.7
Assam	30.4	26.0	19.4	76.7
Manipur	26.9	12.7	10.1	39.7
Meghalaya	46.4	25.9	11.8	44.6
Mizoram	28.3	12.4	9.5	47.8
Nagaland	32.8	26.1	17.8	42.3
Sikkim	21.4	15.5	9.7	50.6
Tripura	34.2	30.5	19.8	74.2
All India	40.9	39.5	23.2	72.4
North-east	36.0	23.7	14.8	56.3
North-east excluding Assam	38.1	22.8	13.1	48.5

Source: Calculated from Unit level data from NFHS 5.

As was seen in Chapter 1, the incidence of poverty is lower in the North-east as compared to most of peninsular India, other than Himachal Pradesh. Further, the STs in the North-east are generally better off in terms of nutritional indicators than the STs overall. The North-east does better than the STs overall both in child and women malnutrition, as seen in Tables 9.3 and 9.4. In the case of the nutrition indicators, such as Stunted, underweight, wasted or anemia children, the hill states of the North-east are placed at better position compared to all-India ST levels [Table 9.3].

With regard to women's nutrition too, the North-east fares better than the ST women at the all-India level. The North Eastern states perform better in terms of proportion of women anemic (53.4 per cent) as compared to All-India (64.6 per cent) among ST. Among the North Eastern state Assam, Meghalaya and Sikkim shows comparatively higher proportion as compared to the other NE states. On the other hand women with low BMI the North Eastern states (10.0 per cent) perform better as compared to ALL-India (25.5). The states Assam, Meghalaya, Nagaland, and Tripura have higher proportion of women with low BMI as compared the aggregate North Eastern states. The states Arunachal Pradesh, Manipur, Mizoram and Sikkim perform better as compared to other North Eastern states. The high

level of landlessness in could be a factor leading to high levels of anaemia. Landlessness would also mean that the households have to depend entirely on purchased food. With intermittent periods when agricultural employment is not available, there are likely to be periods of low food consumption for the local STs.

Table 9.4: Health status of women 15 to 49 years in the ST community in NE and all India ST (%)

	Low BMI (15 to 49 women)	Anaemia (15 to 49 women)
Arunachal Pradesh	4.2	36.3
Assam	11.8	69.2
Manipur	6.2	26.8
Meghalaya	10.9	53.3
Mizoram	5.4	34.3
Nagaland	10.9	27.7
Sikkim	4.2	42.6
Tripura	12.3	66.8
All India	25.5	64.6
North-east	10.0	53.4
North-east excluding Assam	8.9	44.6

Source: Calculated from Unit level data from NFHS 5.

There are several other factors that distinguish the STs in the North-east from those in the rest of India. As seen in the chapter on education, the level of educational performance of the STs is higher than the national average in all the hill states, other than Arunachal Pradesh. However, there are variations across tribes and regions, as brought out, for instance, in the Arunachal Pradesh State Development Report (2011).

There has been a lower displacement of STs in the North-east due to mineral-industrial or hydropower projects, as compared with the large loss of livelihoods that have often accompanied displacement in the rest of India. The average daily wages of the STs in the North-east were Rs 310 for men and Rs 232 for women in 2017–18, which were one-third higher than the figures of Rs 230 for men and Rs 160 for women in the rest of India (NSSO, PLFS 2017–18). Finally, the nature of migration from the North-east is different than that of the STs in the rest of India.

In Chapter 3 on livelihoods, it was noted that the migration of the STs is often into casual labour and low-paying jobs in construction or domestic service. Migration from the North-east, on the other hand, is not so much into casual labour, but is concentrated among those with school or college education, as these people often know English, and thus find employment in the service sectors, particularly hospitality, in peninsular India. The high degree of education in the North-east marks the difference in the nature of migration between the North-east and peninsular India. This is somewhat similar to the migration pattern from Kerala, where better-educated persons go out, while low-paying jobs in the state are filled by poorly educated migrants, mainly from Bihar and Uttar Pradesh. Recently, however, there has been some entry of young women from the North-east, often those who have not completed school education, into jobs in the garment sector in Tiruppur, Tamil Nadu.

All the above factors make the development issues in the North-east different from those of the STs in the rest of India. Poverty is prevalent in the North-east but is not such an overwhelming issue as among the STs in peninsular India. With fairly high educational and nutritional attainments, the human capabilities of the STs in the North-east have a good

base for development. Thus, the development of the STs in the North-east mainly enables them to move up to middle-development status, rather than being focused on poverty reduction, as it is for the STs at the all-India level.

9.3 Current Economic Structure

The hill economies mainly comprise agriculture and services, with almost no manufacturing or other industry. Sikkim is the only state in the North-east with a high contribution of the secondary sector—as much as 63.5 per cent of the Gross State Value Added (GSVA) in 2017–18. While there is low availability of financial services, between 1.5 per cent in Sikkim to 4.5 per cent in Tripura against the all-India average of 6 per cent, that of employment in public administration and defence is high, ranging from 11.2 per cent in Tripura to 18.8 per cent in Nagaland, as against the all-India average of 5.6 per cent. Defence expenditure is not a contribution of either the local population or of the state governments. It is a contribution of the Central government, but it does show that the local component of defence expenditure contributes substantially to income in the North-eastern states.

Agriculture in the North-east is mainly subsistence farming, often of the swidden or *jhum* variety; though this is changing. Livestock rearing and handicrafts make up most of the remainder of the village economies. In Meghalaya, there is substantial cultivation of potatoes, dating back to the British period. Tripura has developed rubber cultivation as a substitute for subsistence swidden farming; while the Garo Hills of Meghalaya have developed cashew and areca nut plantations. More recently, there has been a shift to high-value commercial horticultural and agricultural crops in many North-eastern States. Even in Arunachal Pradesh, fruits such as oranges and kiwis are being cultivated. Similarly, ginger and pineapple are also being grown in the region. Turmeric and bay leaves (*tej patta*) from Meghalaya are among the well-known products of the North-east.

Government services form a large part of the service economy in each of the hill states other than Sikkim. The share of public administration in GSDP is around 12 per cent, which was more than twice as much as

the all-India average of about 6 per cent (RBI 2019). On the other hand, the share of banking and finance was less than half that of the all-India average of 6 per cent (MoSPI 2019). While the banking sector has grown, the credit–deposit ratio is very low, which, at about 39 per cent, is less than 60 per cent of the 76 per cent figure for India as a whole (RBI 2019). The reason for the low credit–deposit ratio is at least partly that the banking system has not developed a manner of dealing with the community-based tenures without individual titles, though ownership may be individual. The low credit–deposit ratio is also due to the largely subsistence nature of the rural farm economy. Lack of a cadastral land survey is also often cited as the reason for the low credit–deposit ratio. But there is much opposition to a cadastral land survey, particularly from the landed elite. Adapting the banking rules to allow for the use of community-certified land titles and community-based security may work to allow credit to ST farmers in the North-east.

Besides rubber, another item of export from the North-east to the rest of India is electricity, mainly from large hydroelectric plants in Sikkim and Arunachal Pradesh. Tourism is another service offered by the North-east to the rest of India. More recently, there has been substantial migration out of the hill economies. Young women and men, having achieved higher education levels, especially in the English language, find employment in call centres, and the customer service and hospitality sectors in most states of India. Although there is no concrete data to show the numbers of young people who have migrated from the North-east into such occupations in peninsular India, a general observation around the country shows that the numbers of such STs are considerable. Trade between the hill economies and neighbouring countries is often of the informal type, carried out across the many border crossings that exist.

9.4 Better Performing Mountain States: Himachal Pradesh and Sikkim

When the State of Himachal Pradesh as a hill region was separated from the state of Punjab, it was largely a subsistence-based, agricultural economy, very similar to the hill states of North-east India. In terms of rice production, the productivity in this hill

economy was much lower than in the plains. In this situation, looking at the comparative advantage of Himachal Pradesh, the State government took up a policy of promoting the cultivation of temperate fruits, such as apples, in which this Himalayan hill state had an advantage. Supporting farm horticulture with seeds, transport, storage, and marketing facilities, the state's per capita income rose as it sold these fruits to the rest of India. Later, so-called off-season or winter vegetables were added to the production mix.

Rising per capita incomes along with advances in education and health have enabled Himachal Pradesh to become a state with one of the highest HDIs in India. The main lesson from the state's experience is that an economic development policy needs to be based on developing the areas in which the state has a comparative advantage. It hardly needs to be said that the productivity of hill rice is much lower than the corresponding productivity in the plains. However, there has been a major shift from subsistence to production for the market based on a comparative advantage, a shift that has not been easy to achieve.

Sikkim, similar to Himachal Pradesh, has utilised its comparative advantage in hydroelectric power generation to generate and sell electricity to the rest of India and Bangladesh too, where they are able to get a higher price. As a result of electricity generation and industrial investment, the share of industry in the state's economy has gone up from 28.7 per cent to 47 per cent from 2004–05 to 2018–19. With the state government itself investing in this sector, the higher allocation of government funds has allowed the state to increase investment in education and health, thereby augmenting the state's performance in these two critical areas of human development.

It should be noted that the only North-eastern state where the contribution of industry has increased has been Meghalaya, where also the investment was mainly in hydroelectric power generation, signifying an increase was of just 10 percentage points from 16.8 per cent to 26.6 per cent from 2004–05 to 2013–14 (ASSOCHAM 2015). For all the other states (Tripura, Mizoram, Nagaland, Meghalaya, Assam, and Manipur) the share of the industry either declined or remained stagnant during these ten

years. Hydroelectric power generation emerges as an area in which the North-east, with its abundant water resources, has a comparative advantage. What needs to be seen is that the projects undertaken utilise technologies that create no or little displacement; while also creating alternative livelihoods for the few who might be displaced. In addition, it is necessary to see how upstream peoples can be paid for the supply of clean, non-sandy water and, thus, get a share of income from electricity generation, as was done in Switzerland during the nineteenth century itself (Nathan 2004). Therefore, the utilisation of hydropower potential in the North-eastern states needs to be tapped in a way that the people and rich biodiversity of the region are not adversely affected and also contribute to poverty reduction.

Sikkim has also had substantial investments by Indian pharmaceutical companies that have taken advantage of the tax breaks offered by the Central government. Most Indian pharmaceutical majors, such as Cipla, Sun, Cadilla, and Alembic, have set up units in the state. As a result, manufacturing accounted for as much as 46.1 per cent of the state GSVA in 2017–18 (see Table 9.6). Pharmaceuticals are a low weight-for-value product and, thus, its disadvantage in production where logistic costs are high would not count for as much as in the case of high weight-for-value products. However, to replicate Sikkim's success with low weight manufacturing, the other states of the North-east would have to be able to provide land without too much of a hassle. The educated labour force required for pharmaceutical manufacturing is well available in the other states of the North-east.

9.5 Development Possibilities

The North-east has some advantages which need to be taken into account in designing a development policy. These may be delineated as follows;

- A well-educated labour force—with educational levels higher than the all-India figures, except for Kerala, the labour force in the North-east is well-educated and that too with the ability to speak English.
- There is both high cultural diversity and biodiversity in the North-east.

However, high transport costs pose a disadvantage in the manufacturing industry. The areas that could do well pertain to products with a low ratio of weight-to-value, such as pharmaceuticals in Sikkim, and those based on processing locally available materials, such as bamboo. In going beyond a subsistence economy, there is need for both specialisations, meaning the utilisation of comparative advantage, and diversification through development into industry and new services. We now look at the possibilities for development in different sectors, including services, industry, and agriculture.

9.6 Services

The above two features (high levels of education and cultural biodiversity) of the North-east make it possible to develop tourism as a major industry there. The cooler climates of the hill states also make them attractive tourist destinations. Tourism is already growing in the North-east, but it requires both the construction of adequate facilities and the removal of travel restrictions to enable the North-east to optimise its potential as a tourist destination. Special events, such as the Hornbill Festival in Nagaland or the Slow Food Festival in Shillong, can be developed to promote a North-east tourist circuit. There are also possibilities such as in adventure and ecotourism, and ethnocultural tourism.

While developing tourism, attention has to be paid to the carrying capacity of sites. For instance, the hanging bridge made from tree roots in Meghalaya is a tourist attraction. But there is no control over the numbers of people who can visit it in a day. In contrast to this, we should note the Valley of Flowers in Uttarakhand, where both the number of people who can visit in a day and where they can walk, is limited. Without such regulation, the tourist sites could end up being destroyed.

Another area of services that has often come up for discussion has been that of Information Technology-Enabled Services (ITES), such as call centres, in the North-east, but this has not been taken further. Given the high level of English education in the region, especially in cities such as Shillong and Aizawl, they could become likely locations for call centres. But initiatives, such as the setting up of an IT park, have not borne fruit.

9.7 Industrial Development

Bamboo is part of swidden (*jhum*) fields. It tends to dominate in short fallow cycles, as on the hills of Mizoram. Some bamboo from the hill states used to be floated downhill to a paper mill in Assam. However, there are ways in which bamboo can be developed as an industry with local value addition. This has been done in China where bamboo has been developed into panels for floors and walls as a substitute for wood. Bamboo in the North-east has an advantage over bamboo from peninsular India in that the former grows faster. Thus, it can serve as a renewable source for wall and floor panels. This, however, cannot be undertaken on an artisanal or small-scale basis. As has been the case in China (Perez et al, 1999), this requires factory-level production based on farmers' cultivation of bamboo as a specialised crop.

A factory requires a large investment and involves some risk-taking. With individual investors not seeming to be ready for undertaking such a venture, it could be taken up by a large collective or cooperative of bamboo producers. This would spread the risk of the bamboo-panel factory over a large number of small investors. Working on the Amul model, where the women milk producers are the owners of all the cooperative's enterprises, a bamboo factory could be set up as a cooperative of bamboo cultivators.

Such an investment would also require technical and investment support from outside the region. This could be done by allowing for capital from the rest of India to be invested in partnership with local capital. Over time, the local partners could also learn the nuances of managing the enterprise and could even buy out the external partner. Such linking of local with external partners has been observed to be quite successful in developing entrepreneurship and management capabilities in minority regions of China, such as Yunnan, and could be replicated in the hill states of North-east India. Of course, setting up such partnerships also requires overcoming mutual suspicions.

Some cement plants have been set up in the East Jaintia Hills of Meghalaya. There are limestone deposits in the area and, as the Supreme Court noted

in a judgment in 2011, limestone mining had been going on for centuries in the area. That, however, would have been small-scale, artisanal mining. Industrial mining is something quite different and requires strict environmental regulation. To get the support of the people, there is also a need for mining or cement enterprises to support development in certain key villages. After the Supreme Court judgement, the Franco-Spanish company, Lafarge Cement, has been undertaking development work in villages within a 5 km radius (Global Cement 2020). Similar measures can be taken up by other industrial projects, utilising, at least, their mandatory Corporate Social Responsibility (CSR) funds.

Overall, given the high transport costs there cannot be an expectation of substantial industrialisation in the North-east, unless it is of the high-value and high-skilled type, which has been characteristic of Switzerland. The required skills, however, do not exist in the region. Then, in the near- to medium-term, industry in the hill states of the North-east is likely to be confined to the processing of locally available raw materials, whether it be minerals, like limestone, or agricultural raw materials, like bamboo.

9.8 Coal Mining

In Meghalaya (and other North-eastern hill states) landowners, unlike in peninsula India, also own sub-soil resources, such as coal or other ores that can be mined. The result in the Jaintia Hills has been the development of small-scale coal mining, aptly called 'rat-hole mining'. This has led to horrific working conditions for the workers, with frequent accidents and deaths, and environmental degradation in the whole region. There have been calls and even a Supreme Court ruling to end coal mining in the region. The Supreme Court judgement in 2014 ended coal mining and, as would be expected, depressed Meghalaya's GDP and also considerably reduced the state's revenues. A solution needs to be found to the problem of small-scale mining so that coal can again contribute to the economy of Meghalaya, along with appropriate environmental safeguards.

A better solution would be to have the land mined in a systematic and large-scale manner by a corporation such as Coal India Limited, with royalties

paid to the landowners. This is likely to result in an improvement in worker and environmental conditions, and also provide an income for the local ST owners of the land. The wealth of Texas in the USA was built on the landowners' rights over sub-soil crude oil, which was extracted by corporations that paid the landowners royalty for their mining. Similar leasing of mining lands could provide substantial income to the North-east. Of course, environmental safeguards would also need to be set in place.

9.9 Agricultural Development

The high wages in the region and the highly educated ST population implies that specialising in small-scale, labour-intensive production of low-value products cannot function as a viable development strategy. Either low-value products like cashew and areca nut must be produced on a relatively large scale, not requiring much labour, as is the case with tree products, or one must look for high-value products.¹ Further, sloping lands, as already mentioned, do not allow a rice or food grain yield comparable to that in the plains. This itself makes it necessary for the North-east to buy food grain from the market and specialise in the production of items which will yield a higher income in the hills. Various fruits and tree products, such as cashew or areca nuts, come into play as possible avenues for increasing agricultural incomes. This, however, requires the establishment of adequate transport, marketing, and financial facilities. The markets of the North-east and those of the neighbouring countries, particularly the fast-growing and large Bangladesh market, can provide markets for these fruits and nuts.

The returns from selling primary products are, however, limited. Value addition and income can be increased by taking up the processing of fruits and other food products and even more so by developing brands. As numerous examples of value chain development show, margins are higher where there is a movement to market branded products. The North-east is already well-known for its turmeric, bay leaves, and large cardamom. The processing,

packaging, and branding of these products, as also of various fruits, can help enhance incomes even further. Neighbouring Bhutan's Druk brand of products is a ready example of a successful movement from the cultivation of fruits to the marketing of processed and branded products.

Tea and coffee are being cultivated in the North-east. In the early stages of taking up cultivation of a new crop, it would be advisable to start with standardised products. But the returns will only increase if one moves into specialty products. A good example of such a movement is that of coffee from the ST-populated Araku Valley in Andhra Pradesh. The STs in this valley started by selling undifferentiated, commoditised coffee, but are now marketing 'Araku Coffee' as an organic and environmental coffee, a label they can use since it has not involved the cutting of trees for planting coffee. Araku Coffee is now also being exported. In a similar way, organic and green tea could emerge as a quality branded product from the North-east.

There have been newspaper reports of small start-ups in Manipur and other North-eastern states that are marketing higher-value, differentiated products rather than undifferentiated commodities. The scaling up of such activities, however, necessitates supporting infrastructure and capability-building investment in the digital economy.

It is often assumed that mountain agriculture is necessarily organic. But that is not so. Falling yields have often led mountain farmers to use inorganic fertilisers; while labour shortages have led to farmers using weedicides in *jhum* fields. The transition to organic agriculture takes two to three years (Scialabba 2000: 12). This would require some compensation to help farmers through the transition period. In 2019, the Food and Agriculture Organization (FAO) declared Sikkim as India's first organic agriculture state.

A naturally occurring product in the North-east is orchids. But in order to not destroy the supply source, it is necessary to advance from harvesting orchids from the wild to cloning them. Cloning facilities are already well-established in the Assam tea gardens. Using these available capabilities, cloning facilities can be set up for orchids. Overall,

¹ This section is largely based on various presentations and discussions at the 2019 Symposium organised by ICIMOD in Guwahati, which brought together experts from the region, and government and international agencies (ICIMOD 2019).

with the cool climates of the hills, exporting cut flowers to the rest of India can be a contributor to growth.

An artisanal product that can be developed is woven shawls. Here too, the aim is not to target the low-price market, but the high-quality, high-price market in high-value garments and accessories. This requires both design and technical development. An example is the development of the Eri silk value chain. Local knowledge and traditional skills have been complemented by additional knowledge to develop high-value products with quality control and marketing support. With this, income from Eri silk products increased from Rs 10,000 to Rs 100,000 per household per year (ICIMOD 2019: 36).

Capabilities have to be built in design based on the prevalent hill patterns in woven garments. Marketing capabilities also need to be developed. These are scale-sensitive and knowledge-intensive functions that cannot be carried out by smallholders on their own. They have to be provided in a centralised manner, such as by cooperatives and other forms of collective organisation of producers. They can also be provided by service centres set up for different products. All these require state support and investment. Methods of finance, enabling the use of community security, have been talked about but have not been put in place. This has led to low credit–deposit ratios all across the North-east, as shown in Table 9.5. The inability to utilise traditional land tenures as collateral for bank credits, and the strong subsistence nature of agricultural production in much of the North-east together lead to this low credit–deposit ratio.

Development in all the above areas requires substantial infrastructure and capability-building investment. The infrastructure required, however, is no longer just of the traditional roads and electricity type, though those are basic. There is a need for advanced, digital infrastructure –good Internet connections for marketing, and a secure digital payments system. Drones can be used for local delivery, as they are reportedly being considered for medicine delivery in Meghalaya.

Table 9.5: Credit–deposit ratio of scheduled commercial banks according to place of sanction 2022 (as at end-March)

States	Credit Deposit Ratio
NE states	46.4
Arunachal Pradesh	25.1
Assam	50.7
Manipur	66.3
Meghalaya	32.3
Mizoram	45.7
Nagaland	43.8
Tripura	43.3
Eastern Region	44.7
Sikkim	41.8
All-India	72.1

Source: <https://www.indiabudget.gov.in/economicsurvey/doc/stat/tab33.pdf>

In the course of such possible developments of commercial, high-value agriculture, there is need for some caution. In extending commercial specialisation into swidden fields, there is a danger of the loss of biodiversity through the neglect of those that are not of immediate commercial value. This can be offset by developing multi-tier, multi-species cultivation. Rather than just one output, many outputs can be combined, as has been done quite successfully in Yunnan, China. The synergies between all the different crops cultivated can be ecologically and commercially valuable (Nathan 2004).

Multi-species cultivation has the added advantage of providing some protection against market price volatility. There are often wide fluctuations in the prices of coffee and other primary products. Combining, for instance, coffee with pepper would provide some protection against price fluctuations since the prices of both commodities are unlikely to follow the same pattern of fluctuations.

A point on the technical side is the need for appropriate irrigation in the hillsides. Rather than wells and canals, what could be developed are ways of increasing moisture retention on hill slopes.

The North-east imports livestock products from neighbouring countries. This shows that there is scope for developing local production in this centre. This too, however, would require shifting from backyard livestock rearing to commercial systems, even if they are of a relatively small scale.

The shift from swidden to commercial cultivation will have consequences for land tenure. In a swidden system, land can and often does go back to the village commons, or notionally is a part of the village commons. But with commercial cultivation, the crops themselves might take time to mature and yield output, meaning that tenure must extend beyond a season. In addition, there is an investment of labour in levelling and otherwise improving the land. All this is likely to result in privatisation of land. It has been observed that when this occurs in a laissez-faire manner, the distribution of land is based on power (Nathan 2004 for Meghalaya; and Mishra 2017 for Arunachal Pradesh), resulting in a sharp increase in landlessness and inequalities. This requires appropriate authorities, such as district councils, to manage an inclusive transition from commons to private land systems. Overall, there is also a need for setting up land records systems to manage such transformations. There can be some innovative institutional reform in this. For example, a landholding or possession certificate issued by a competent authority, say, a village council could be recognised as an “instrument” against which institutional finance and/or other government support can be provided.

9.10 Migration

Youth from the North-east have been going out of the region for education and jobs. Many work in call centres and the hospitality industry. In comparison with the ST migrants from peninsular India, the migrants from the North-east are both better educated and are employed in better-paying jobs. Migrants from North-east India are mainly engaged in the retail, business process outsourcing, hospitality, information technology, and other private sectors. They are also employed in the public sector and in government jobs as teachers, doctors, engineers, and government officials.

A recent analysis of migration in North-east India shows both in-migration and out-migration. In both

types, movement for work and with households, which is also for work, is the most important reason for migration. A feature of out-migration from North-east India is that it is mainly urban-to-urban, which is different from the picture in the rest of India, where rural-to-urban migration dominates. Seasonal migration out of the North-east does not seem to exist. Education is also a major reason for out-migration from North-east India (Lusome and Bhagat 2020).

The migration of skilled persons can be enhanced through appropriate educational and training facilities. For instance, many young women from Manipur are now working as nurses in hospitals in North India. With their knowledge of English, young persons from the North-east could well qualify if trained in, say, nursing for jobs in the health sector in different parts of the English-speaking world. States of the North-east could take up both training of skilled persons and setting up of migration centres to facilitate both national and international migration.

9.11 International Trade and the Act East Policy

With extensive international borders, North-east India could well be the gateway to South-East Asia. This, however, has not quite been exploited. There has been a renewed emphasis through the Act East Policy on the economic and strategic cooperation between India, in particular the North-eastern states and the neighbouring countries and in the Asia-Pacific region at large. The transit trade so far has been limited and exports from the region itself account for 90 per cent of border trade (Chakraborty, 2018). Most trade through the border posts seems to go just to the border areas on the other side, rather than into the wider national markets.

Although there has been a diversification of the trade basket, one cannot discern any effect of a deliberate trade-based policy. There is some informal trade among Indian manufactures, such as in bicycles and sewing machines. But the border markets are not so large that they would induce Indian manufacturers to set up manufacturing or assembly units in the North-east for exports to these border countries.

A trade policy that could succeed would be based on local products, including fruits and nuts in both

raw and processed forms. There are reports that substantial quantities of pineapple and areca nut are being informally exported from the North-east. As the North-east increases production of fruits, it is likely that the states here would also find cross-border markets. Even if the export is informal, it would still increase the demand for local products. This gateway to South-East Asia is operating, but it needs to expand and transform into more formal regular trade.

9.12 Government Roles

It was observed at the outset that the states of North-east India together have a population of more than 4.5 crores. However, with various restrictions on the movement of people and goods across state borders, these 4.5 crore people do not constitute a single market. While maintaining inner-line permits that restrict those not belonging to a state from settling down in the region or another state, much can be done to promote a unified market. Road transport connections are poor in the North-east. This hampers the movement of goods and also of people for tourism. Such development of roads and related infrastructure requires coordination between states, something that can be facilitated by the Central Ministry to deal with development issues in the North-east. Development of transport and other infrastructure is a public good that needs to be provided across the states of the North-east.

Governments also implement development policies by enabling commercialisation of that which is now at the level of a non-commercial cottage industry. For instance, some individuals and households in Meghalaya produce fruit wines, which are sold informally and locally. Providing licences for the production and sale of these fruit wines will help them move from local to regional, national and even international markets. Such use of fruit for wines will also increase the value of trees, some of which are currently cut down for timber or even firewood (Agarwala 2020). There are various such non-commercialised products whose production could become more sustainable with commercialisation that increases the value of trees and thus discourages their low-value uses, such as for firewood.

An increased role for state governments is only possible with some institutional reform. First, they should be less dependent on transfers from the Central government. Dependence on such transfers is not conducive to building a government that pays attention to development needs. The electoral system can help in this matter, as people come to use their votes in favour of those who provide required public goods, such as infrastructure, and pay attention to development needs. In addition, as mentioned in the section on autonomous district councils in Chapter 9, if state and local governments both depended on tax collections from citizens, then they would feel the pressure to deliver on public goods and development needs.

9.13 Conclusion

The STs in the North-east are generally better-off in terms of income earning-capacity, education, and health status as compared to STs from peninsular India. As a result, there are more development issues for states of the North-eastern region in terms of moving through middle-development levels, rather than those of dealing with acute deprivation, as with the STs of peninsular India.

There are several possibilities for economic development in the hill states of North-east India. As Sikkim has done, the hydroelectric potential of the region can be developed to gain revenue from selling electricity to the rest of India and neighbouring countries, such as Bangladesh. The mineral deposits in the region, such as limestone and coal, can be mined, with adequate safeguards, both environmental and with regard to jobs for local persons. Utilising the CSR money of enterprises working in the North-east for development in the surrounding villages, besides providing jobs for local persons, would help increase support for mining and industrial projects in the region.

Agriculture itself needs a transformation from low-productivity subsistence farming to high-value commercial farming of horticulture products. Organic farming and commercial production of orchids can be promoted for the marketing of high-value products. The handicrafts of the region can also be turned into high-value products for the growing middle class in India. Facilitating such upgrading,

however, requires investment, either through cooperatives or producer organisations, in centralised functions, such as quality control, branding, and marketing. For agricultural development as a whole, a stable property rights regime, combining both individual and community tenures, is a key requirement.

The possibilities in manufacturing are constrained by high transport costs. Based on available minerals, coal and limestone, there has been some manufacturing using local raw materials, such as cement. However, to get local support, jobs are

needed and, in addition, some support from the large-scale manufacturing units to develop villages in the area.

IT services can overcome transport requirements and can benefit from a high level of English education in the region. Tourism is one major possibility, requiring both infrastructure and capability development as well as good governance. Overall, economic development policies need to be formulated for each of the hill states in the North-east. All this requires the State governments in the North-east to play much more active roles.

APPENDIX TABLE

Table A.9.1: GVA and GSVA of north-east states

Percentage distribution of gross value added (GVA) and gross state value added (GSVA) by economic activity at constant (2011–12) prices

Item	Percentage share of total GVA		Percentage share of total GSVA																	
	India		Arunachal Pradesh		Assam		Manipur		Meghalaya		Mizoram		Nagaland		Sikkim		Tripura			
	2011–12	2017–18	2011–12	2017–18	2011–12	2017–18	2011–12	2017–18	2011–12	2017–18	2011–12	2017–18	2011–12	2017–18	2011–12	2017–18	2011–12	2017–18		
Agriculture, forestry and fishing	18.5	14.9	42.0	28.5	21.1	17.4	19.8	18.2	14.9	17.9	20.1	25.5	30.9	29.2	8.3	8.3	27.2	29.2		
Crops	12.1	8.7	23.6	13.0	15.2	12.9	10.8	8.0	8.6	10.2	10.2	5.9	16.9	18.4	7.2	7.2	17.0	10.2		
Livestock	4.0	4.1	2.7	2.8	1.2	1.0	4.1	3.6	3.1	3.5	4.1	3.7	6.9	3.0	0.7	0.8	1.8	2.0		
Forestry and logging	1.5	1.2	15.2	12.3	1.7	0.8	3.3	4.8	3.0	3.6	5.2	15.4	6.6	7.3	0.4	0.3	5.8	12.0		
Fishing and aquaculture	0.8	0.9	0.4	0.4	2.9	2.7	1.5	1.7	0.2	0.6	0.7	0.5	0.5	0.5	0.0	0.0	2.6	5.0		
Mining and quarrying	3.2	3	2.1	3.4	10.8	12.4	0.0	0.0	7.4	4.3	0.7	0.3	0.5	0.2	0.1	0.1	6.3	16.4		
Primary	21.7	17.9	44.1	31.9	31.9	29.7	19.8	18.2	22.3	22.2	20.8	25.9	31.4	29.4	8.3	8.4	33.5	45.6		
Manufacturing	17.4	18	1.2	3.4	11.4	15.4	3.2	3.3	24.6	9.2	0.9	0.7	1.3	1.7	39.5	46.1	3.9	4.5		
Electricity, gas, water supply and other utility services	2.3	2.2	6.4	9.6	1.4	2.4	4.3	3.4	2.4	1.6	6.9	12.9	2.4	2.6	17.1	12.8	2.4	4.0		
Construction	9.6	8	9.6	11.3	8.8	8.9	7.9	9.7	6.0	5.9	12.0	10.0	8.7	8.2	6.2	4.6	7.9	5.6		
Secondary	29.3	28.2	17.2	24.3	21.6	26.7	15.4	16.4	33.0	16.7	19.8	23.6	12.4	12.6	62.8	63.5	14.1	14.1		
Trade, repair, hotels and restaurants	10.9	12.6	5.5	5.1	15.1	10.7	12.3	16.3	13.6	23.9	10.3	13.0	8.7	9.3	2.9	4.5	12.1	5.7		
Trade and repair services	9.8	11.6	5.2	4.9	14.5	10.3	11.7	15.7	12.6	22.6	10.0	12.8	8.3	8.9	2.4	4.1	11.6	5.3		
Hotels and restaurants	1.1	1.1	0.3	0.2	0.6	0.4	0.5	0.6	1.0	1.3	0.3	0.2	0.4	0.4	0.4	0.4	0.5	0.3		

Item	Percentage share of total GVA		Percentage share of total GSVA																							
	India		Arunachal Pradesh			Assam			Manipur			Meghalaya			Mizoram			Nagaland			Sikkim			Tripura		
	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18	2011-12	2017-18		
Transport, storage, communication and services related to broadcasting	6.5	6.5	2.2	2.5	6.0	5.8	5.5	7.2	5.1	6.3	4.3	3.7	4.8	5.5	2.6	3.3	4.5	5.5	2.6	3.3	4.5	5.5	2.6	3.3	4.5	
Railways	0.8	0.7	0.0	0.0	1.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Road transport	3.2	3.2	1.1	1.2	2.6	2.5	3.4	4.0	3.7	4.3	2.9	2.3	2.7	2.9	2.0	2.5	0.0	0.0	2.0	2.5	0.0	0.0	0.0	0.0	0.0	
Water transport	0.1	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Air transport	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.4	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Services incidental to transport	0.8	0.8	0.0	0.0	0.3	0.1	0.1	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	2.2	
Storage	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Communication and services related to broadcasting	1.6	1.6	1.0	1.3	1.5	1.7	1.8	2.3	1.3	1.9	1.3	1.2	1.9	2.3	0.6	0.8	2.0	2.3	0.6	0.8	2.0	0.0	0.0	0.0	3.3	
Financial services	5.9	6	1.9	1.9	3.2	3.3	1.8	2.1	3.0	3.3	2.7	1.9	4.0	3.0	1.5	1.5	3.0	4.0	1.5	1.5	3.0	3.0	1.5	1.5	4.5	
Real estate, ownership of dwelling and professional services	13.0	15.9	3.5	2.6	8.2	5.4	10.6	7.3	6.1	5.9	5.6	3.4	10.7	7.8	5.4	4.3	6.4	7.8	5.4	4.3	6.4	6.4	4.3	6.4	4.3	
Public administration and defence	6.1	5.6	12.5	14.9	6.1	8.6	18.2	17.9	9.4	11.6	18.7	15.6	15.1	18.8	6.8	6.3	12.9	18.8	6.8	6.3	12.9	12.9	6.8	6.3	11.2	
Other services	6.6	7.2	13.1	16.8	8.0	9.7	16.4	14.6	7.6	10.2	17.8	13.0	12.9	13.6	9.7	8.3	13.6	13.6	9.7	8.3	13.6	13.6	9.7	8.3	9.1	
Tertiary	49.0	53.9	38.7	43.8	46.5	43.6	64.8	65.5	44.7	61.1	59.4	50.5	56.2	58.0	28.8	28.2	52.4	58.0	28.8	28.2	52.4	52.4	28.8	28.2	40.3	
TOTAL GVA at basic prices	100.0	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

C H A P T E R

10

Governance and Institutions

Governance and Institutions

Human development depends on the ability to use resources (in the case of STs, mainly land and forests) and health and educational services, among others. Efficient governance is important for facilitating access to services and the optimal use of resources. Additionally, in case there are problems in securing these resources, access to justice preventing the denial of one's rights are important. Thus, in this chapter, we deal with governance, justice, and institutional issues relating to the development of STs.

Governance structures for the STs are somewhat different from those for other social groups in India. The different structures are covered under the Fifth and Sixth Schedules of the Constitution of India. Thus, the chapter first deals with governance in the Schedule V and Schedule VI areas. This is followed by a discussion of the issues of displacement and inadequate rehabilitation as a matter of denial of justice, followed by a consideration of other forms of injustice and crimes faced by the STs.

Governance should be extended to cover the manner in which communities are included in administrative structures of different types. Because of their continued interaction with forests and the environment, the ST communities have developed certain cultural capabilities and knowledge of human–nature interaction that can be of use in dealing with the problems of human interaction with forests. This is recognised in the Forest Rights Act (FRA), which accords a special role to ST communities in the management of community forests. The second part of this chapter covers issues of human–nature interaction and problems in using the FRA to secure community management

of forests. The chapter concludes with a short description of the potential contribution of forest-dwelling ST communities and their worldview in dealing with contemporary issues of the environment and climate change.

10.1 Governance in the ST Areas

The areas that include major ST populations are covered under two Schedules of the Constitution, the Fifth Schedule and the Sixth Schedule. The Fifth Schedule applies to the ST-dominated areas in peninsular India, while the Sixth Schedule applies to parts of North-east India. The existence of these Scheduled Areas is due to the understanding that the development of STs requires different governance structures as compared to those that apply to the rest of India. For instance, there are laws, such as the Chotanagpur Tenancy Act, which do not allow non-ST persons to buy land belonging to the STs. In the North-east, there are additional laws that do not permit Indians from other states to acquire permanent residency status in those states.

These Schedules of the Constitution have their origin in the history of these ST-dominated regions. Before British colonial rule, the “tribes enjoyed the autonomy of governance over the territory they occupied” (Xaxa, 2020). As the British conquered and subdued the tribes, they were kept somewhat apart in the “partially excluded areas” in peninsular India and the “excluded areas” in North-east India based on the Government of India Act of 1935. The partially excluded areas became the areas of the Fifth Schedule and the excluded areas became those of the Sixth Schedule. The idea that the development of the STs required somewhat different laws and

administrative systems was thus carried over into the Indian Constitution.

10.2 Schedule V Areas

The Fifth Schedule Areas are located in the States of Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, and Telangana. Together they account for major share of the ST population. As mentioned above, the land laws in these areas do not allow the transfer of land into non-ST hands. There are two other features of governance in Fifth Schedule Areas: the formulation of Tribal Sub-Plans (TSPs) for the development of the tribes, and the rights of Gram Sabhas and the Gram Panchayats covered under the Scheduled Areas by the Panchayat Extension to Scheduled Areas (PESA) Act of 1996. A recent additional law pertaining to the rights of STs (and other forest dwellers) is the FRA. These issues of governance in the Schedule V areas are discussed in detail in this chapter.

10.3 Non-Alienation of ST Land

That ST land should not be alienable was brought into law after the Birsa Munda-led Munda rebellion in Chotanagpur, now part of Jharkhand, at the end of the nineteenth century. The Chotanagpur Tenancy Act prohibits the transfer of ST land into the hands of others. Rebellions in other parts of the country, for example, of the Gonds in Hyderabad, led to similar legislations to protect ST land. These laws were meant to protect the STs from losing their lands and livelihoods. But as many studies have shown (for example, of the Bhangya Bhukia of the Gonds in Andhra Pradesh) this has not stopped, though it may have slowed, the alienation of ST lands. The process has been taking place through “fraudulent transfers, forcible eviction, mortgages, leases and encroachment have been going on especially in the Fifth Schedule Areas” (Xaxa, 2020). Besides the loss of land to others, more important has been the takeover of lands for various mineral-industrial projects, leading to the injustice of forced displacement without adequate resettlement.

10.4 Tribal Sub-Plans

For more than 45 years, the Tribal Sub-Plan (TSP) was supposed to be a critical financial instrument

for supporting the development of STs. The Dhebar Committee that proposed the TSP thought that this could “unlock the potential of Fifth Schedule provisions by strengthening self-governance and the rights of tribal communities over natural resources” (A. Xaxa 2019). The TSP sought to formulate policies and programmes for the development of the STs. Over time, TSP funds were segregated from general schemes.

There were many problems in the implementation of TSPs. First, there were significant unspent amounts. At times, the TSP funds were used for the construction of roads for mineral or industrial projects, projects that increased the displacement of the STs. More recently, however, the idea of a separate development focus for the STs has been replaced by an “allocation for the welfare of Scheduled Tribes”. It remains to be seen whether the shift in emphasis from a development path for the STs to welfare allocation for them makes any difference to the funds and schemes being implemented for ST development.

10.5 PESA

PESA provides for the local management of affairs in accordance with “traditions and customs”. It provides powers to the village assembly or the Gram Sabha to: (1) approve plans and programmes to be taken up by the Panchayat; (2) be consulted on the acquisition of land for projects; and (3) allow leases for mining of minor minerals and non-timber forest products (NTFPs), which are deemed to belong to the village community. PESA endows the latter specifically with the ownership of minor forest produce.

Since local government is a state matter, PESA required that state legislatures pass laws in accordance with PESA. While passing such laws, many restrictions have been introduced to limit the use of PESA powers. For instance, the Andhra Pradesh law allowed Gram Sabhas to harvest NTFPs but maintained the trading monopoly of the state-owned GCC (Girijan Cooperative Corporation).¹ The State Act of Odisha requires that Gram Sabha’s powers of management of resources must be “consistent with relevant laws in force”, and not the

¹ (GOM 173, dated 7/12/96 of the Environment, Forest, Science and Technology Department, Government of Andhra Pradesh).

other way around. As discussed in Chapter 3 on livelihoods, PESA, nevertheless, has enabled many ST communities to benefit from managing and using, including for sale, NTFPs and minor minerals.

Various forms of local government can build on traditions, but they also modify them. This has been the case with the Village Development Councils (VDCs) of Nagaland. The VDCs have become the conduit for all government programmes in the villages and have implemented them quite successfully (Nathan et al. 2012). They have innovated on the local tradition in that they are entirely composed of the youth of the villages rather than the village elders (gaon burra). At the same time, they have also been conservative in excluding women, other than for the one 'women's affairs' portfolio. When Naga women filed a case in the courts to secure women 30 per cent of seats allowed under PESA, there was strong resistance from Naga men, who argued that this went against their tradition. Consequently, while supporting the type of participatory democracy embodied in the Gram Sabhas, there is need for removing the restrictive features of traditional organisations, particularly those which promote the exclusion of women from village councils and assemblies, a feature of even the matrilineal Khasi tribe in Meghalaya.

10.6 Sixth Schedule Areas and Autonomous District Councils

The Sixth Schedule Areas are all located in the states of North-east India. Autonomous District Councils (ADCs) were set up under the Sixth Schedule of the Constitution to allow the ST communities in the North-east some autonomy in the governance of their affairs. The Sixth Schedule includes 10 autonomous district councils in four States: Assam—Bodoland Territorial Council (2003), Karbi Anglong Autonomous Council (1952/1976), and Dima Hasao Autonomous District Council (NC Hills Autonomous Council, 1952/1970, 2014); under the Karbi Anglong Autonomous District Council in Assam; Meghalaya: Garo Hills Autonomous District Council (1952), Jaintia Hills Autonomous District Council (1964) and Khasi Hills Autonomous District Council (1952); Tripura: Tripura Tribal Areas Autonomous District Council (1979/1982); and Mizoram: Chakma Autonomous District Council, Lai Autonomous

District Council, Mara Autonomous District Council (1972/1987).

There are 30 subjects, including industry, forest, agriculture, the Public Works Department (PWD), education, cooperative, health and family welfare, irrigation, town and country planning, excise and finance, including sales tax, excise and professional tax, which have been allotted to the ADCs. The District Council and the Regional Council under the Sixth Schedule have real legislative powers to make laws, receive grants-in-aid to meet the costs of schemes for development, health care, education and roads, and are subject to regulatory powers under State control. The Autonomous Councils have also been bestowed with wide civil and criminal judicial powers, for example, in establishing village courts subject to the overall jurisdiction of the concerned High Court.

The District and the Regional Councils have responsibility for framing rules for the management of finances with the approval of the Governor. They are also given mutually exclusive powers to collect land revenues, levy and collect taxes on lands, holdings, shops, and entry of goods into market and tolls, among others, within their respective jurisdictions. But the District Council has the concurrent power to tax professions, trade, callings, employments, animals, vehicles and huts, tolls on passengers and goods carried in ferries, and the maintenance of schools, dispensaries or roads. Under Para 9 of the Sixth Schedule, the royalty on the licences or leases for the extraction of minerals in the autonomous districts goes to the District Council. As regards the tax on motor vehicles, it is assigned and collected by the state government on behalf of the District Council. Grants-in-aid, loans and advances from the state government constitute other sources of income of the Councils.

10.7 Critique on Working of the District Councils

Over the years, the following four complex models of autonomy/power-sharing arrangements within a state have emerged (Lama 2019):

1. The traditional model covered by the Sixth Schedule provisions.

2. A coexistence model, where a full-fledged state, as a whole, co-exists with pre-Statehood ADCs as in Meghalaya.
3. An adjustment model where, unlike in the past, autonomy was strictly given to the hill tribes, and has now been extended to the tribes in the plains, as in Bodoland, and also to identity conflict-driven autonomy as in Darjeeling.
4. The fourth variety has evolved as a solution to slow development and conflict triggered by identity politics, where a parallel model of separate ADCs is created by the states with strikingly similar powers and functions, but is outside the framework of the Sixth Schedule, as in Manipur.

The District Councils have not been able to protect the common lands or to codify a customary system of land tenure and any of the other social customs. Where individual ownership of land is recognised, no land reform measures have been initiated. No cadastral survey has as yet been carried out in most of the areas. The traditional instrumentality has been used to generate a process of progressive concentration of vast landed property in the form of private ownership in the hands of the emerging local middle class or a small group of well-off STs. It has been aggravating the situation of rural poverty by pushing an increasingly larger section of the poor towards becoming landless peasants, farm/agricultural labourers, and sharecroppers. The emergence of private ownership in land leads to exploitative relations in land use and management, and thereby perpetuates the existing disparities of wealth and land alienation among the extremely poor STs. This will certainly disturb social harmony in the long run.

The relationship to the land is the basis of the tribes' identities, and the culture and identity of tribes cannot be preserved without them being allowed to maintain control over land and natural resources. However, these very instrumentalities may lead to a perverse system of exacerbating disparity and discontent. Generally, tribal or indigenous cultural practices include community land ownership, while some other tribes practise clan ownership; however, modern land relations and formal laws recognise

only individual ownership of land. Distortions and aberrations have set in, which need correction and continuous documentation and dynamic record-keeping systems. In the absence of such measures, there has been usurpation and exploitation of these land-based resources by the elite and the powerful amongst the STs. For instance, studies on Meghalaya (Nathan 2000; Mukhim 2020; and Nongkynrih, 2008) have shown that without formal changes in land systems, much of community land and forests have been privatised.

Many feel that District Councils have lost their vision and have become self-serving institutions, (P. Mukhim 2020). To some, the Sixth Schedule, comprising principles and stipulations to protect the rights of STs is not merely a document or an instrument but has assumed an interesting form of political dogma. Gassah L.S. (Gassah, 1997) states, "The Sixth Schedule is a long history of the tribal struggle for identity assertion. It cannot be easily dispensed with, without causing serious doubt about the intention of the Indian State. The whole issue of inter-articulation of the institutional arrangements and operational range under 'the Sixth Schedule and the 73rd Amendment Act will have to be carefully examined and a substantially altered Sixth Schedule by synthesizing the positive thrust of both will have to be evolved" (Gassah, 1997).

Overall, however, it should be pointed out that the ADCs have administrative but not financial autonomy. The money they receive goes towards paying salaries and meeting office expenses (Umdor 2020). On their part, the ADCs have been reluctant to utilise their power to levy some taxes, such as house or land tax. Since people are more likely to monitor the use of funds received through the taxes they pay, better than the funds received from a distant Central government, levying such taxes would not only enhance the ADCs' resources but also increase pressure on the ADCs to function in a manner that meets peoples' needs and supports their aspirations.

Having looked at the different governance structures, we now turn to the issues of justice in development, as also to the crimes being perpetrated against the STs and related justice issues.

10.8 Inclusive Development, Displacement and Justice

A development policy that includes the STs means that where development of, say, mining, requires the alienation of tribal land, it should be done with the consent of the STs, a consent that they can express through the Gram Sabhas, as made necessary by PESA and FRA. This was seen very dramatically in the case of the Niyamgiri Hills in Odisha. The Supreme Court upheld the right of the Gram Sabhas to decide on whether or not to cede their land for mining, saying that the “Gram Sabha has a role to play in safeguarding the customary and religious rights of the STs and other TFDs under the Forest Rights Act confers power on the Gram Sabha to determine the nature and extent of ‘individual’ or ‘community rights’. In this connection, reference may be made to Section 13 of the Act coupled with the PESA Act, which dealt with the powers of the Gram Sabha (Para 56)”.²

Further, whether or not STs do accept the diversion of their lands would depend crucially on how they perceive their likely development. There are extreme cases wherein the ST communities, such as in the Andamans, do not want this modern development. In peninsular India, however, it is more likely that they think that they will not be adequately compensated, not in monetary terms, but in terms of improved livelihoods and well-being.

The record of compensation to the STs for the lands they have lost to mining or for construction of dams does not provide them with hope for better livelihoods. The Twelfth Five Year Plan pointed out that while 84 lakhs to 1 crore ST persons were displaced from 1951 to 1990, only 21.2 lakh among them were rehabilitated during that period.³ The displaced themselves end up in the bottom of the urban working class, often forced into petty pilfering to stay alive, as observed in the coal-mining areas of Jharkhand (Herbert and Lahiri-Dixit 2004).

The Twelfth Five Year Plan document pointed to the denial of justice to the STs:

² Orissa Mining Corporation. Ltd v. Ministry of Environment and Forests, (2013) 6 SCC 476, available at http://supremecourtindia.nic.in/scr/2013/2013_v6piv.pdf

³ Twelfth Five Year Plan, Vol. 3, Social Sectors, Chapter 24, para 24.85, p. 237.

The disproportionately large impact of displacement of the STs is evident from the fact that at least 55 per cent of all displaced people are STs... It has been an important reason for their pauperisation, often leading them to a state of shelter-less and asset-less destitution, the need to avoid such large-scale displacement, particularly of the STs and in cases of unavoidable displacement, their comprehensive resettlement and rehabilitation (R&R) has become one of the central issues of the development process itself. (Planning Commission 2012: 165)

The new industries that come up in these areas need not be the ones that employ all those who have been displaced. Given the current educational standards among the STs, many of the youth could be absorbed in these new industrial and mining units. More important would be the creation of new livelihoods through labour-intensive and relatively low-skilled industries, such as in garment manufacture. Such labour-intensive and low-skilled manufacturing industries must be part of the investment package in the area, and since the locations of these metal- and mineral-based industries will inevitably have superior infrastructure, the labour-intensive industries could also be located in these regions, though at a distance from the mines and related industries. Some extra concessions might also be offered to investors to locate in these regions. The government of Jharkhand has begun this process by persuading some established garment manufacturers to set up their new factories near Ranchi. Such investments in labour-intensive industries, where those displaced by mineral-based industrialisation can get jobs, should be an important part of a rehabilitation policy that contributes to inclusive development.

10.9 Left-Wing Extremism

The erstwhile Planning Commission had more than once gone into the reasons for the persistence of Left-wing Extremism (LWE) in the forest areas. It pointed to the deep alienation of many STs from the development process. It pointed to the displacement, support of State officials for trader-contractors, and the alienation of many STs from the development processes, from which they received few benefits.

It is well known that the areas of east-central India inhabited largely by the STs are the ones where the problem of LWE has persisted over long decades. The very persistence of these armed movements over decades raises the question of whether there is some ground for this persistence in the alienation of large sections of STs from the ongoing development processes in the country. In a broad sense, the factors that underlie the low human development of the STs, as discussed in this report, need to be addressed to deal with the issue of LWE in the vast ST-dominated region of east-central India.

It has been mentioned in the Introduction to this chapter that before British colonialism, these areas were largely self-governed, with loose ties to surrounding kingdoms. This loose relationship persisted in the British period in the form of 'semi-excluded' areas under the 1935 Government of India Act. Along with this, the State was seen an extraneous element, removed from their forms of self-governance (Shah 2007).

In addition to this historical alienation from the centralised states, there has been an alienation due to various ways in which the states have sided with those the STs recognise as their exploiters, oligopoly traders, and contractors. In such a situation, the proponents of LWE were often seen as protectors of ST interests vis-à-vis traders and contractors, with State officials often supporting the latter.

Earlier sections have documented the high levels of displacement of the STs from their lands for mineral-industrial development. The fact that they lost their old livelihoods while hardly getting anything of the new livelihoods needs to be dealt with to reduce the alienation of the STs from the state and the overall development process. These processes and neglect of infrastructure have led to lack of development among the ST communities. The Ministry of Home Affairs points out that an attempt is being made to deal with the "development deficits" in areas affected by LWE (MHA 2020).

10.10 Crimes against the STs

The National Crime Records Bureau (NCRB) records crimes committed against persons belonging to different social groups. From this data, we can analyse some trends on crimes against the STs.

A comparison among States shows that Madhya Pradesh, Rajasthan, and Andhra Pradesh record high rates of crime among the major ST population of the states. The share of crimes against the STs in these states, committed by the non-STs when compared to the total number of crimes against the STs in the whole of India, is disproportionately higher than their share of the population.

It has to be noted that these figures for crimes against the STs are only part of the total recorded crime that the STs experience. The NCRB figures indicate that the crimes against the STs are largely committed by the non-ST persons, which is a critical issue, given the latter's position in society. However, it does not throw light on the overall recorded crimes against the STs and how the STs themselves are also "involved" in crime and how many of them STs are booked for these crimes. For example, if an ST woman is killed with allegations of witchcraft by an ST person, it is not included in the crime against the STs under this category of crime collated by the NCRB. Therefore, no comparison can be done with national crime rates in this case. We do not know if the STs experience more crime than other populations, in general, or are involved in less crime than others.

But there is a telling statistic that while the STs account for only 8.6 per cent of the total population of India, they accounted for about 11 per cent of those arrested in 2015 (NCRB 2016). Further, while 96 per cent of the Adivasis arrested are acquitted, because of the lack of bail, they end up spending many months in prison. An author of the study of the justice system in Bastar is quoted as saying, "As per our study the reason for overcrowding is not the high arrest rate but because it is taking too long for people to come out of jail. Bail is not granted here, and trials are taking very long" (Sharma 2016).

PESA and FRA, to the extent that they are implemented, provide a way of undoing historical injustices against the ST peoples. But there are other forms of injustice that affect the STs. Most ST persons find it very difficult to negotiate the formal justice system. They are not only often unaware of their rights, but they also do not have the language and other skills to negotiate the bureaucracy and police. In addition, when dealing with the forest department, they do not have recourse to the same system of administration, police, and courts

that other citizens of this country have, since, in supposed forest offences, the forest department serves all of these functions. In addition, the STs face language and cultural barriers in dealing with officials at all levels, who generally operate in the official State languages.

It is imperative to develop systems of support for the STs to enable them to access the systems of justice and courts generally available to all citizens of this country. Recruiting more persons from the STs in these services would also help build a more congenial atmosphere for persons from the STs to approach different arms of the state for justice and grievance redressal.

10.11 Perceptions on Governance, Development, and Peoples' Aspirations

The IHD conducted a primary survey across villages in Madhya Pradesh, Rajasthan, and Jharkhand to get an idea of the ST communities' perceptions of state of development, how the governments have fared in providing and improving access to various services to the villages, as well as their own aspirations for change in their lives. We start with the perceptions of basic needs, economic conditions and poverty in the villages.

It should be highlighted that among the most basic needs of food, water, and shelter, a substantial number of respondents experienced improvements in food availability and consumption, and shelter, but access to clean drinking water remains a serious concern. During the previous five years, nearly half of the respondents expressed that food consumption has improved, while a small share of them (2.5 per cent) experienced a deterioration. With regard to drinking water, only 23 per cent experienced better access while 18 per cent experienced a worsening situation. Housing condition improved among 30 per cent, but worsened among 14 per cent of them, while the remaining experienced no change.

The economic condition of households and incomes have improved among a significant share of population. However, some experienced a fall in their livelihood prospects and incomes, while a majority experienced no change. Assessed over a longer period of ten years, 38 per cent of respondents expressed improvements in their household economic condition and 13 per cent said it worsened. In the last five years, more specifically

in incomes and livelihoods, a quarter of them felt betterment in livelihoods and employment, and about 28 per cent experienced increases in incomes. Sadly, however, about 14 per cent of them expressed worsening experiences in livelihoods and incomes.

- Almost 90 per cent of the respondents in Jharkhand thought that poverty had decreased over the last 10 years. In Madhya Pradesh, 45 per cent thought that poverty had decreased in this period, while in Rajasthan just 22.8 per cent thought that poverty had increased (Table 10.1).

Table 10.1: Poverty status in villages during the last 10 years (per cent)

Poverty status	Madhya Pradesh	Rajasthan	Jharkhand	Total
Decreased	45.3	28.4	89.1	65.0
Increased	11.7	22.8	2.5	9.0
Remained same	37.0	40.9	5.4	21.2
No response	6.0	7.9	3.0	4.8
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020

- On the current status of health care facilities, a majority in each State thought that it was poor, while this figure went up to 83.7 per cent in Jharkhand (Table 10.2). More importantly, above 50 per cent of the respondents in each State thought that there had been no improvement in health facilities in the last five years (Table 10.3).

Table 10.2: Current status of health care facilities in villages (per cent)

Rating	Madhya Pradesh	Rajasthan	Jharkhand	Total
Good	21.3	14.9	0.9	9.3
Average	27.0	17.2	15.4	19.0
Poor	51.0	67.9	83.7	71.5
No response	0.7	0.0	0.0	0.2
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020.

Table 10.3: Improvement in health care facilities over the last five years (per cent)

Status	Madhya Pradesh	Rajasthan	Jharkhand	Total
Improved	27.0	21.9	15.6	20.0
Deteriorated	15.7	14.9	4.6	9.7
Remained same	56.7	60.5	79.9	69.6
No response	0.7	2.8	0.0	0.7
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020.

- With regard to educational facilities, again only 20.9 per cent thought these facilities were good (Table 10.4), though 47.5 per cent did think that there had been an improvement in the last five years (Table 10.5).

Table 10.4: Current status of education facilities in villages (per cent)

Rating	Madhya Pradesh	Rajasthan	Jharkhand	Total
Good	35.7	47.4	3.2	20.9
Average	40.3	27.0	56.9	46.4
Poor	23.3	25.6	39.9	32.5
No response	0.7	0.0	0.0	0.2
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020

Table 10.5: Improvement in education care facilities over the last five years (per cent)

Status	Madhya Pradesh	Rajasthan	Jharkhand	Total
Improved	47.7	36.7	51.5	47.5
Deteriorated	11.0	8.8	5.3	7.6
Remained same	40.7	54.4	43.3	44.8
No response	0.7	0.0	0.0	0.2
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020

- As regards road connectivity, 49 per cent thought it was poor, while just 16.9 per cent thought it was good (Table 10.6). But a majority, that is, 52.9 per cent, thought there had been an improvement. It was only in Rajasthan that 66 per cent thought that it had remained the same (Table 10.7).

Table 10.6: Current status of road connectivity in villages (per cent)

Rating	Madhya Pradesh	Rajasthan	Jharkhand	Total
Good	42.7	14.4	4.4	16.9
Average	21.7	20.9	45.2	33.9
Poor	35.0	64.7	50.4	49.0
No response	0.7	0.0	0.0	0.2
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020

Table 10.7: Improvement in road connectivity over the last five years (per cent)

Status	Madhya Pradesh	Rajasthan	Jharkhand	Total
Improved	60.0	16.7	62.9	52.9
Deteriorated	15.0	13.5	3.3	8.6
Remained same	24.3	66.0	33.8	37.6
No response	0.7	3.7	0.0	0.9
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020

- With regard to electricity, while only 19.9 per cent thought it was good (Table 10.8), as many as 63.4 per cent thought that there had been an improvement in this service (Table 10.9).

Table 10.8: Current status of electricity in villages (per cent)

Rating	Madhya Pradesh	Rajasthan	Jharkhand	Total
Good	41.3	31.6	4.2	19.9
Average	27.7	21.4	56.9	41.8
Poor	30.3	47.0	38.9	38.1
No response	0.7	0.0	0.0	0.2
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020

Table 10.9: Improvement of access to electricity over the last five years (per cent)

Status	Madhya Pradesh	Rajasthan	Jharkhand	Total
Improved	57.3	33.5	77.9	63.4
Deteriorated	11.0	9.8	4.4	7.3
Remained same	31.0	54.0	17.7	28.5
No response	0.7	2.8	0.0	0.7
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020

- As regards the quality of drinking water facility, two-thirds reported that it was poor (Table 10.10). Further, 67 per cent thought that it had either deteriorated or remained the same but had not shown any improvement (Table 10.11).

Table 10.10: Current status of drinking water facility in villages (per cent)

Rating	Madhya Pradesh	Rajasthan	Jharkhand	Total
Good	25.7	9.8	6.3	12.3
Average	19.7	13.5	23.3	20.3
Poor	53.3	76.7	70.4	66.9
No response	1.3	0.0	0.0	0.4
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020

Table 10.11: Improvement in access to drinking water over the last five years (per cent)

Status	Madhya Pradesh	Rajasthan	Jharkhand	Total
Improved	29.0	12.6	39.9	31.5
Deteriorated	19.7	9.3	5.4	10.1
Remained same	50.7	74.0	54.6	57.4
No response	0.7	4.2	0.0	1.0
Households surveyed (N)	300	215	571	1086

Source: IHD Primary Survey 2020

- IHD's primary survey among the ST persons in Madhya Pradesh and Rajasthan also revealed that a large majority (almost 80 per cent) of the respondents had poor or no information on government schemes.
- In addition, 41.2 per cent of the respondents felt that government officials were either "not helpful at all" or "bad" in their treatment of ST persons.
- Even doctors and staff in hospitals were felt to be "not helpful at all" or "bad".
- Almost one quarter (23.7 per cent) of the respondents feared or faced some threat from government officials or the police.
- As many as 38.6 per cent felt that the government has not at all been working in their favour, while 32 per cent felt that the government has worked "to some extent" in their favour. Only 29.4 per cent responded with a clear positive "yes" to this question.

To sum up the main perceptions, people feel that there has been no improvement in the poverty status, but there has been some improvement in education, road, and electricity services. The two areas that were seen as not showing any improvement were health services and water. At the state level, there was dissatisfaction with the performance with regard to health services in all the three states. In Jharkhand, there was the maximum dissatisfaction with both the status and level of improvement in educational facilities. With regard to road connectivity and drinking water too, Rajasthan fared worse than the other states.

This Perceptions Survey shows that despite numerous schemes of universal access, the ST populations face many kinds of deprivations, most of all in the areas of health and drinking water. They also had little or no information about government schemes. Overall, there is scope for improvement in the implementation of government schemes, with the need for paying particular attention to last-mile connectivity. There is much to be done in increasing access to services that would reduce poverty.

Further, there are problems in the way in which the ST persons perceive government officials, including those from the forest department, and even doctors and hospital staff. Many feel that these officials are

not helpful or even pose a threat to the ST persons. Almost 40 per cent of the respondents felt that the government has not at all worked in their favour. Such alienation is something that needs to be addressed to improve development performance and even to deal with LWE influence.

The survey also captured the aspirations of the STs especially in education and occupations. Strong aspirations for change are expressed in terms of occupations – either complete shift in occupations or change in occupational conditions especially in their earnings. Education is recognised as instrumental in their empowerment and better employment. Only about 6 per cent wanted their children to study until primary or upper-primary education. The remaining 18 per cent wanted to educate children till secondary and higher secondary levels. The majority wish their children to pursue higher levels of education including technical courses and under-graduate and graduate level courses. Equally, importantly, only 22 per cent respondents would like their children to study within or nearby villages. The majority would like to send their children to nearby towns as well as distant towns and cities for better education.

Similarly, in occupations and employment, 60 per cent of respondents would like to change their own occupations and the remaining 20 per cent would like to continue but wish better conditions and earnings in the job. In response to inter-generational change, only 16 per cent would like their children to pursue the same occupation as the respondent, while a large share of 80 per cent wishes their children to pursue a different and better occupation. However, nearly two-thirds of them would like their children to work and live nearby, either within or nearby villages and towns; only 10 per cent want them to pursue their occupations away from the village and 21 per cent in any town or city. These wishes and aspirations express possible scenarios as well as a strong desire for better occupations, earnings and lives.

10.12 Community and Governance

Individuals, as citizens, have rights. The Indian Constitution and laws, however, also recognise others, such as communities, as having rights. Reservation, for instance, is for communities. Under

PESA, the Gram Sabha is a village community with rights over the use of resources, such as NTFPs and minor minerals. FRA recognises not only individual rights in what is designated as forest land but also Community Forest Rights (CFRs). The Sixth Schedule recognises ST communities and their rights to protect their cultures.

Thus, there have been many positive developments in giving ST communities space in India's governance structures. Better governance, however, requires an expanded and effective role of local communities in governing and implementing various programmes, such as was noted with the VDCs of Nagaland. Such roles could be extended to Gram Sabhas under PESA and are likely to have beneficial effects on human development.

A tribe exists not only as a collective of individual members, nor even just as village communities but also as a larger community, identifying with its distinct culture and worldviews. Of course, all such identifications frequently change, even if the communities at each time think that their current identification constitutes their culture. Consequently, the development of the STs also needs to pay attention to their aspirations to promote their cultures. However, cultural preservation should not be understood as the perpetration of all injustices within the community, but as taking forward those cultural features that are of benefit to human development, such as the ideas of participatory democracy or better human–nature interaction.

10.13 Recognising Tribe–Forest Symbiosis

Governance requires recognition of the rights of persons or communities, of their rights to participate in administering or governing processes. This, however, requires prior acceptance of the likely contribution that such communities might make. Denial of the rights of communities to participate in the processes of administration is often based on the notion that communities have no contribution to make or do not have any knowledge that may be useful in this administration. Forest management is the prime example of the denial of the contributions of the ST communities to their management, based on the idea that the required knowledge is vested solely with “scientifically trained” persons. In the commercial approach to forestry, the STs' intimate

knowledge of forests and their management are dismissed as something to be replaced by “scientific” forestry, meaning the replacement of multispecies forests by plantations.

More recently, however, there has been a shift in understanding, with human–forest interaction being

given more importance as an approach to ecological sustainability. Current ecological science emphasises the importance of multispecies forests (Wester et al. 2019). This is something that may be done in new ways, but the basic approach is familiar in the worldview of many tribes around the world (Descola 2013).

Table 10.12: Features of tribe–forest relationship in policies

Major features of the tribe–forest relationship addressed by policies	Forest Policy 1952	1988 New Forest Policy	Forest Rights Act, 2006
Livelihood of the forest-dwelling Scheduled Tribes	“National interest” was put above the livelihood of the forest dwellers.	There was no mention of strategies to support the livelihoods of the traditional forest dwellers.	Accorded right to hold and live-in forest land under the individual or common occupation for habitation or self-cultivation for livelihood.
Primitive Tribal Group's Status	Not mentioned.	Not mentioned.	Represented for the first time.
Community rights	The rights were curtailed to expand state protection.	Benefits should be used for the bonafide use of the communities.	Gave proper community rights such as Nistar.
Right of ownership/ access to minor forest produce	Not mentioned in the policy.	Recognized the sustenance needs but nothing mentioned about rights to access use and deposition.	Full ownership, access to collect, use, and dispose of the minor forest produce that had been produced within or outside village boundaries.
Community rights of uses and entitlements	“Village forests” were created. Access was granted to firewood, grazing areas, but were subjected to many regulations.	Importance of these products for the ST population was recognized.	Community rights were given for their use as well as for their entitlements.
Protection and conservation of the community forest resources	Community rights were not mentioned.	Mentioned but no mechanism for transfer.	Rights are given to the STs on community resources.
Rights to protect and conserve forest land	No role of forest dwellers.	Only mentioned that the people living in the forest should be aware of and help the government in doing so.	Rights and responsibilities are given to forest dwellers.
Rights of settlement and conversion of forest villages	No such rights were bestowed upon the forest dwellers.	No such rights were given.	These rights were given to the forest-dwelling Scheduled Tribes.
Right of access to biodiversity, intellectual property and traditional knowledge	No such rights were mentioned.	Importance of the conservation of total biological diversity, the network of national parks, sanctuaries, biosphere reserves and other protected areas should be strengthened.	Right of access to biodiversity and community rights to intellectual property and traditional knowledge to the forest-dwelling Scheduled Tribes.
Right to in situ rehabilitation	Not mentioned.	Rehabilitation was not mentioned in the Act.	Right to in situ rehabilitation.

10.14 The Forest Rights Act (FRA)

The FRA is an advance over the earlier forest policies of 1952 and 1988, in that it addresses various aspects of tribe–forest relationships that were earlier ignored. The role of the STs in the management and protection of forests is acknowledged. They (along with other forest-dwelling communities) are given the right to manage and use community forests.

The Act begins with a preamble that acknowledges the injustice of the exclusion of STs from forest management rights. The benefits of FRA have been discussed further in Chapter 4 on livelihoods. Here, we deal with governance issues in implementing the FRA.

10.15 Implementation Status

By December 2019, the rights under FRA had been recognised on 12.95 million acres of land (see Table 10.13). Of these, two-thirds are CFRs, wherein communities cannot change the existing land use system. On another 4.1 million acres, individual *pattas* have been awarded. These were not forested lands, but one can say that they had been wrongly classified as forest lands. For instance, for the states of Maharashtra and Gujarat, satellite data showed that 92 per cent and 95 per cent, respectively, of the individually settled land had no forest cover (Sahu 2019), showing that these were not forested lands at that time.

An assessment by a group of community forest organisations showed that the states that were doing well in implementing the FRA include Maharashtra, Odisha, Kerala, and Gujarat, the latter only in Schedule V areas after intervention by the Gujarat High Court. Some states like Telangana, Andhra Pradesh, Madhya Pradesh, and Chhattisgarh had not taken up any CFR claims. Overall, as seen in Table 10.13, there has been the poor implementation of claims to CFR. Almost 15 years after the passage of the FRA, just 13 million acres (constituting not even 15 per cent of the total possible area) of CFRs have been registered (FES et al 2020).

Recent (October 2022) data on claims and titles show that overall, with regard to individual claims, 50.0 per cent of the claimants have been awarded titles up to October 2022, while in the case of community titles, the figure goes up to 60.7 per cent

of the claims being awarded titles. But there is a lot of variation among the states (Table 10.13). The states of Bihar, Goa, Himachal Pradesh, Karnataka, Uttarakhand, Tamil Nadu, Uttar Pradesh, and West Bengal are the poorly performing states. In West Bengal, only 6.8 per cent of the community claims have been settled and titles for CFRs awarded, which should be contrasted with the corresponding figures of 90.0 per cent in Chhattisgarh, 74.1 per cent in Uttar Pradesh, and 64.0 per cent in Gujarat (Table 10.13).

It should be pointed out that the reason for giving a key role to the local communities of forest dwellers is not just a matter of undoing a historical wrong that has been perpetrated since the British times. Local people need to be given a role in forest protection because they have a wealth of knowledge of the functioning of forest systems, as pointed out in a study of the Jharkhand communities by a forest official (Sanjay Kumar 2014). In addition, giving local communities an incentive to undertake forest protection can be effective in improving forest management, as argued by a CIFOR (International Centre for Forestry Research) study (Edmonds and Wollenberg, 2003). The IPCC recently reiterated, “Land titling and recognition programs, particularly those that authorize and respect indigenous and communal tenure, can lead to improved management of forests, including for carbon storage” (Ishan Kukreti 2019).

PESA and FRA can together contribute to strengthening participatory local forest management, combining livelihoods with conservation. Funds for afforestation and related activities would strengthen participatory local forest management. The Central government has collected a large fund, more than Rs 50,000 crores, in the compensatory afforestation fund, titled CAMPA. The fund had been lying unused and has recently been transferred to the Forest Department for implementing afforestation schemes. Afforestation could be carried out in two ways—one is to engage contractors to carry out the activities. The other is to engage forest communities, through their Panchayats and Gram Sabhas, as contractors, both under the supervision of the Forest Department.

Given the importance of a locally relevant species mix in afforestation, combining the species of commercial and ecosystem value, the local

Table 10.13 State-wise details of claims received, titles distributed and the extent of forest land for which titles distributed (individual and community), as on 31.10.2022

S. No.	States	No. of Claims received			No. of Titles Distributed			Extent of Forest land for which titles distributed (in acres)		
		Individual	Community	Total	Individual	Community	Total	Individual	Community	Total
		1	2	3	4	5	6	7	8	9
1	Andhra Pradesh	2,81,431.0	3,294.0	2,84,725.0	2,17,981.0	1,822.0	2,19,803.0	4,46,068.0	5,26,455.0	9,72,523.0
2	Assam	1,48,965.0	6,046.0	1,55,011.0	57,325.0	1,477.0	58,802.0	NA/NR	NA/NR	NA/NR
3	Bihar	8,022.0	NA/NR	8,022.0	121.0	0.0	121.0	NA/NR	NA/NR	NA/NR
4	Chhattisgarh	8,71,457.0	50,889.0	9,22,346.0	4,46,041.0	45,764.0	4,91,805.0	8,98,685.4	49,00,036.3	57,98,721.6
5	Goa	9,758.0	378.0	10,136.0	432.0	13.0	445.0	785.5	18.2	803.7
6	Gujarat	1,82,869.0	7,187.0	1,90,056.0	91,686.0	4,597.0	96,283.0	1,56,924.6	12,36,490.2	13,93,414.7
7	Himachal Pradesh	2,746.0	275.0	3,021.0	129.0	35.0	164.0	6.0	4,741.8	4,747.8
8	Jharkhand	1,07,032.0	3,724.0	1,10,756.0	59,866.0	2,104.0	61,970.0	1,53,395.9	1,03,759.0	2,57,154.8
9	Karnataka	2,85,878.0	5,859.0	2,91,737.0	14,695.0	1,344.0	16,039.0	19,997.2	36,340.5	56,337.7
10	Kerala	43,889.0	940.0	44,829.0	27,630.0	190.0	27,820.0	36,594.74	0.0	36,594.7
11	Madhya Pradesh	5,85,326.0	42,187.0	6,27,513.0	2,66,609.0	27,976.0	2,94,585.0	9,02,750.5	14,63,614.5	23,66,364.9
12	Maharashtra	3,62,679.0	12,037.0	3,74,716.0	1,65,032.0	7,084.0	1,72,116.0	3,92,928.7	27,36,660.7	31,29,589.4
13	Odisha	6,29,343.0	15,430.0	6,44,773.0	4,54,233.0	7,706.0	4,61,939.0	6,67,379.1	3,45,832.4	10,13,211.4
14	Rajasthan	1,10,670.0	2,697.0	1,13,367.0	48,460.0	576.0	49.0	66,251.1	44,917.0	1,11,168.1
15	Tamil Nadu	33,755.0	1,082.0	34,837.0	8,144.0	450.0	8,594.0	9,626.4	NA/NR	,626.44
16	Telangana	2,04,176.0	2,808.0	2,06,984.0	97,434.0	102.0	97,536.0	3,10,916.0	3,631.0	3,14,547.0
17	Tripura	2,00,557.0	164.0	2,00,721.0	1,27,931.0	101.0	1,28,032.0	4,65,192.9	552.4	4,65,745.3
18	Uttar Pradesh	92,577.0	1,162.0	93,739.0	18,049.0	861.0	18,910.0	19,190.3	1,20,776.0	1,39,966.3
19	Uttarakhand	3,587.0	3,091.0	6,678.0	184.0	1.0	185.0	0.0	0.0	0.0
20	West Bengal	1,31,962.0	10,119.0	1,42,081.0	44,444.0	686.0	45,130.0	21,014.3	572.0	21,586.29
TOTAL		42,96,679.0	1,69,369.0	44,66,048.0	21,46,426.0	1,02,889	22,49,315.0	45,67,706.0	1,15,24,397.0	1,60,92,103.2

Note: A/NR-Related figure is either not available or not reported.

Source: Ministry of Tribal Affairs, GoI, downloaded on 29.11.2025 from [https://tribal.gov.in/downloads/FRA/MPR/2022/\(C\)%20MPR%20Oct%202022.pdf](https://tribal.gov.in/downloads/FRA/MPR/2022/(C)%20MPR%20Oct%202022.pdf)

knowledge of forest communities needs to be harnessed for such afforestation activities. Earmarking CAMPA funds through local communities to be utilised for community-managed afforestation within broadly defined landscape parameters (for

example, the proportion of land to be allotted for commercial and ecosystem service species) would combine the forest communities' livelihood interests with conservation and afforestation.

The discussion in Chapter 3 has shown that the implementation of FRA has provided substantial benefits to forest dwellers, through more secure farming and higher income from NTFPs. The increase in the extent and quality of forest cover entails benefits to both forest dwellers and the wider communities. This also enhances India's contribution to the mitigation of climate change. However, there are still many challenges in its implementation. In particular, it is necessary to protect the inclusionary rights of communities. The integrated community management of forests can work to strengthen the sustainable utilisation of forest resources and the ecosystem values they provide.

10.16 Ecosystems and Forest Communities

Ecosystem values can be classified into four systems as follows:

- Social values, including both marketed and non-marketed biodiversity used for social benefits and development; forest dwellers use the ecosystems for a variety of uses, including food and medicine.
- Cultural value, landscapes and cultures as socially valued.
- Ecological value, stressing the interdependence, interaction, and co-evolution of species; and
- Economic value, where livelihoods are generated from the use of the ecosystem.

The focus is on an integrated approach combining both people and ecosystems. In this, a distinction needs to be made between the producers and consumers of ecosystem services. For instance, land use management that increases forest cover is produced by forest dwellers. Some of it may involve deliberately not cultivating steep slopes to protect tree cover. The consumers who benefit from the land management practices of forest dwellers are those in the plains, flooding on whose lands is controlled by producing higher tree cover in the forest areas.

The classical approach of biodiversity conservation started with an emphasis on the conservation of flagship species, such as the tiger in protected areas. Over time, the emphasis has shifted to landscape-level conservation, with the understanding

that conservation and management of biodiversity are impossible without people's participation (Wester et al. 2019). In line with this, there has been an emphasis on the devolution of forest management to local communities (Edmonds and Wollenberg 2003), a line of thinking that is in line with the approach of the FRA.

Local management is based on the use of local knowledge, along with external knowledge transmitted through various forms of interaction. Local knowledge is manifested in the varied ways in which culturally and medicinally valued species are conserved. The sacred groves of various ST communities are testimony to the importance of local knowledge in conservation.

Such local approaches, however, can get disrupted when commercial demands interact with the local people. This can have the effect of both leading to the preservation of species or their destruction through over-extraction. For instance, the tree that yields *gum karaya* in Andhra Pradesh used to be burnt in the swidden fields. But after *gum karaya* got a commercial value, the trees were preserved in individually owned agricultural fields. On the other hand, when *chiraita*, a shrub, growing in common areas, was given commercial value, it quickly became endangered in Jharkhand, due to competitive over-extraction. These two examples show the importance of forms of property rights that are needed to manage extraction practices when the production orientation changes from production for use to production for commercial sale. Of course, property changes need not be individual; they can also be collective or cover an entire community. FRA envisages just such community-based uses of forest areas, some of which can be used without changing the landscape.

10.17 Environmental Services—Governance Institutions Must Provide Incentives for Supply

The notion that environmental services are provided free by "nature" has led to a denial of the contributions of forest communities. There are no incentives provided for the provision of these environmental services, leading to an under-supply of these services. The protection of biodiversity hotspots is one such problem, exacerbated by the

lack of incentives to forest communities for their preservation.

Many of the Adivasi areas, as in the Western Ghats and the North-eastern states of India, are biodiversity hotspots. Biodiversity, however, is a public good in that its benefits accrue not just to those in these localities but also to others, nationally and globally. Preserving biodiversity is a service that is performed by the forest and related dwellers for the rest of the country and the world. The costs of preserving this biodiversity, however, are that some part of the resources has to be set aside from production, which may, at times, have local importance. For instance, stream banks should not be cultivated but should be set aside to protect the local water supply. This is a local environmental service and has local benefits.

On the other hand, many other environmental services do not have just local benefits; their benefits are both national and global. Carbon sequestration in trees helps reduce greenhouse gas emissions, thus mitigating climate change. Some environmental services have both local and wider impacts. For instance, cooking with solid biomass, wood as fuel, not only causes household air pollution with household health impacts, but also contributes to the smog that hangs over north India, especially during the winter months. Switching to cooking with clean fuels, such as LPG, would benefit both the STs in their locations and the country as a whole.

The pervasiveness of external benefits of many forms of environmental conservation leads to the question of who should bear the cost of providing these services, such as clean air. Given the fact that the STs are, on the whole, much poorer than people in the rest of the country, a just approach would require that the STs be compensated for the costs, including opportunity costs, of providing these benefits.

There are many international examples from which India can learn in this respect. The UN has been carrying out the Reducing Emissions from Deforestation and Forest Degradation (REDD) programme, which compensates forest dwellers for the increase in forest cover. Many Asian countries and Asian Development Bank (ADB) projects pay upstream dwellers for providing clean water so that the silting of downstream reservoirs is reduced. In implementing the Central government's slogan

of inclusive development, it is necessary to work out methods of compensating the STs and other forest dwellers for environmental services, such as clean air, clean water, carbon sequestration, and biodiversity conservation, which are public goods benefiting the country and the world.

10.18 Biodiversity Conservation

The threats to biodiversity are both global and national—mainly land-use change and habitat loss, pollution, climate change, and invasive alien species (Wester et al, 2019: 129). The concept of biodiversity conservation has evolved from focusing on species while excluding people from approaches centred on people and communities. The United Nations Convention on Biological Diversity (1992) adopts the ecosystem approach, which can be implemented through a participatory approach. This provides acknowledgement to the STs' knowledge of plant resources and interaction, a knowledge that has been acknowledged as ethno-botany.

Biodiversity conservation can be of two types, ex-situ (off-site) and in situ (on-site). Off-site conservation is in the gene banks, normally undertaken by the agricultural research institutes. Sacred groves are a way of on-site preservation of biodiversity. Usually, no extraction of tree products is allowed from the sacred groves, ensuring the protection of species and varieties that are found in the groves. On-site conservation is also undertaken by farmers who keep many varieties on their lands. The latter may entail a cost in income lost as that land has to be diverted from possibly high-yielding commercial varieties to low-yielding traditional varieties. There is an opportunity cost of income foregone to preserve biodiversity. Thus, there can be a trade-off between the benefits accruing to forest dwellers and conservation. To bridge this gap, various methods can be developed to compensate the farmers for their on-site preservation of varieties and species.

10.19 Indigenous Technical Knowledge (ITK) and Cultural Products

Indigenous Technical Knowledge (ITK) refers to the knowledge about local environments, which is produced, held, and used by various communities. Here, we are referring to the knowledge specifically

held by the STs in various parts of the country. In the discussion on the importance of decentralised governance of forests, we have referred to the knowledge that forest dwellers have of forest ecology. This is a form of Indigenous Technical Knowledge. There are other such forms of ITK, such as those that relate to medicinal uses of herbs and plants, and of ecological and organic agriculture. There are a number of issues relating to such Indigenous Technical Knowledge among the ST communities.

First, there is the denigration of such knowledge as being “backward” or “primitive” or believing in “superstition”. This usually goes hand-in-hand with the extolling of modern knowledge as the only knowledge that is worth utilising and developing, ignoring the fact that modern knowledge often has a base in traditional technical knowledge. To cite an important example, much contemporary treatment of malaria is developed from the traditional knowledge of what works in treating malaria. This is something one would expect, as forest dwellers who are subject to a high incidence of malaria, are likely to have developed ways of treating it. Quinine or the contemporary form of chloroquine, is developed using the South American tribes’ knowledge of the quinine bark. Even the recent Chinese development of Artemicin for treatment of chloroquine-resistant malaria was developed from the knowledge of tribes in Yunnan, China, and their use of this herb. The issues of intellectual property rights still require some clarification based on the concept of co-development involving both traditional knowledge holders and modern developers.

Often, however, this traditional technical knowledge is lost as agricultural and forest product-related practices change. For instance, many ST agriculturists utilise Green Revolution technology, such as High-Yielding Varieties (HYVs) and inorganic fertilisers, in rice cultivation in irrigated lands in valleys. The higher yields of HYV technology are attractive. But, in the process, the traditional knowledge of ecological agriculture is lost. Field work in villages in North-east India showed that even in upland, rain-fed agriculture, the inorganic weedicide Roundup is used to perform the otherwise labour-intensive task of weeding in swidden fields. Now that there is a recognition of the importance of ecological agriculture (see Kesavan and

Swaminathan 2018), it is imperative to preserve such forms of ecological agriculture so that the knowledge itself is not lost. For example, Sikkim in North-east India has developed all its agriculture as organic agriculture.

Some areas of the STs’ traditional technical knowledge that need to be acknowledged and developed are as follows: the ST community’s traditional technical knowledge of different ecological processes, such as of local environmental services; ethno-medicine documented by NGOs in different parts of India; and ecological agriculture. There would be great merit in setting up a research institute to document, study, and develop different areas of STs’ indigenous technical knowledge of organic agriculture, and the uses and management of NTFPs, and ethno-medicine.

The art of the tribes has now got some recognition. The Warli and Gond paintings as also Adivasi metal sculpture of the lost-wax method, called *dokra*, are now acknowledged as part of the overall Indian art scene. However, the creators are generally categorised as ‘craft’ workers, and not as artists. Thus, much needs to be done for these artists to be accepted not as some ethnic curiosity but as artists in their own right.

Their forms of music and dance, as also the varied weaves, particularly of the tribes of North-east India, are cultural artefacts that contribute to the diversity of India. They can even play a role in the combined cultural and economic development of their respective communities. They can be used to develop cultural tourism, rather than just as show pieces in parades.

10.20 Governance Utilising Indigenous Technical Knowledge: STs and Forests

It is often said that Adivasis are symbiotic with nature. The nature of human–forest co-creation has gone through a number of phases: such as, first, the collection of products that are useful; then, the promotion of growth of those trees or shrubs that are considered useful; and, lastly, the domestication and cultivation of those species. Through these different types of humans–nature interaction, the STs (and other forest dwellers) have developed considerable knowledge of these interactions.

As the world struggles with environmental degradation and climate change, it is also necessary to understand the roots of thinking that have led to this situation. In development thinking, nature is understood as an object for humans and how humans use it is purely a matter of utility. Nature then does not exist as a power for itself, but purely in an instrumental manner to be used by humans to satisfy human needs.

This, however, is not how the Adivasis of Niyamgiri and elsewhere understand nature. They see themselves and other beings, such as animals and trees, and things, such as stones and hills, as being part of nature; each with their own needs and requirements. The world is not seen in a human-centric manner; rather, humans are just one among other species in existence. The Adivasi way of seeing the world is often called animism, the understanding that everything has its spirit. What this can be translated as is that each set of things has its way of relating to each other and other things. For instance, trees relate to each other in their way and to other things in the forest too.

The work of foresters Peter Wohlleben (2016) and Suzanne Simard (2016) has established that trees have their ways of relating to each other. They are not just a group of individual trees but have a relation to each other in their species. There are 'mother' trees that have a greater responsibility in seeing to the needs of the species. A forest then is not just a group of trees but forms a 'cooperative system' (Simard 2016). The connections between plants and animals on their own and in relation to humans reinforces the animist way of seeing the existence of things (or ontology) as a material continuity connecting all organisms (Descola 2013: 230). As the anthropologist Marshall Sahlins put it, this develops the view that "other people's worlds do not revolve around ours" (2013: xiii). Just as Copernicus put forward the view that the solar system does not revolve around the earth, so animism sees nature as something or things that are not centred around humans and our needs.

Thus, dealing with the crisis of climate change and environmental degradation requires a shift in our way of thinking about the world. From seeing everything else, whether trees or animals, in terms of what

humans need from them to seeing the intra- and interaction of all things in nature, including humans, is a shift in worldview that is necessary to be able to deal with the ongoing challenges of climate change and environmental crises. The Adivasi world view or animism of the interaction and interrelation of all things provides a better starting point than the economist view of nature as being instrumental for human needs.

Accepting that the STs have ways of thinking that are of importance in dealing with the Anthropocene requires a change in the manner in which ST populations are regarded by the rest of the populations, including the scientific establishment. The general attitude is one of looking down upon the STs as "backward" or "primitive". Consequently, their knowledge systems are also regarded as "unscientific". The FRA marks a change in this approach and accepts the role of forest communities in forest management. The importance of ST knowledge systems has been indirectly acknowledged in the wide use of forest products in Ayurvedic and other natural medicinal systems. The FRA also links this approach with the Biological Diversity Act (BDA) by stating that "sustainable use shall have the same meaning as assigned to it in Clause (o) of Section 2 of the Biological Diversity Act".

There are other aspects of the culture or values of the STs that are worth learning from. The ST communities tend to have a high regard for equality. On the other hand, the present-day market economy inevitably increases inequality. This has often led to reactions among the ST communities, where they have denounced those becoming better-off or doing well as witches who cause harm to others. While rejecting the notion of witches and the accompanying persecution of women, one must take note of the importance given to equality. Economists as diverse as Nobel laureates Amartya Sen and the former World Bank Chief Economist Joseph Stiglitz have pointed to the need to decrease inequality. The Sustainable Development Goals (SDGs) also emphasise the reduction of inequality in the development programme for the world. It is time to acknowledge that there is something to be learnt from the ST communities' regard for equality.

Similarly, many ST communities practise forms of participatory democracy i.e., one where the community and not just the elected officials of the Gram Panchayat participate in decision-making. Of course, in this too, the ST communities have usually excluded women from this participatory democracy. Both PESA and FRA acknowledge the role of participatory democracy in managing natural and other resources, including women in that participatory democracy. While remaining careful to reject the exclusion, it is necessary to benefit from elements of equality and participatory democracy in the thinking and values of the ST communities. These can also provide a basis for culturally rooted development as a form of inclusive human development.

10.21 Conclusion

This chapter highlights the important role of governance in the development of the ST communities. The devolution of governance through the PESA and FRA needs to be strengthened. The role of ADCs in North-east India needs to be

reformed in order to democratise the development in those areas. Overall, governance in ST areas also needs to pay attention to enhancing the role of ST women, whether in forest governance or the administration of village-level programmes.

The devolution of governance is particularly important in providing the scope for the utilisation and development of indigenous technical knowledge, including that of forest governance. The broad ST view of seeing nature–human interaction as a synergistic process and not that of one-sidedly dominating nature is important, not just for the ST communities but also for the world as a whole, in grappling with the ongoing and deepening environmental crisis.

Inclusive development for the ST communities also needs to be based on the positive features of ST values. Forms of egalitarianism as against the growing inequality of capitalism today, attention to the nature–human co-evolution and participatory democracy, modified to provide equal space for women’s agency, all need to be promoted for the development of the ST communities.

C H A P T E R

11

Conclusions and Way Forward

Conclusions and Way Forward

The purpose of this Scheduled Tribes' Human Development Report is to appraise the state of well-being of the ST communities, and then to identify areas for public action for enhancing their capabilities and well-being. More specifically, in the preceding chapters, it discusses human development indicators, livelihoods, education and health, infrastructure as also dimensions of gender inequality among the STs. This concluding chapter outlines the main findings and discusses policy measures that are the key to advancing human development for ST communities. It delineates the main dimensions of human development of the ST communities, identifies key problems, and suggests measures for more inclusive and equitable all-round development with the intent of reducing and eliminating the development gaps between the STs and other social groups.

11.1 Human Development among STs

Human Development aims at advocating expansion of human capabilities, widening people's choices and enhancing their freedoms. The starting point of the notion of human development is that people stay healthy and live a long life, their knowledge and skills-base grow, and that there is a rise in their incomes. There are many indices and indicators that define human development; the most popular being the Human Development Index (HDI), with others like Multidimensional Poverty Index (MPI) and Head Count Ratio (HCR) and inequality measures supporting these. This report throws light on these for the STs and also compares them with non-ST population.

The components of HDI are knowledge, good health and remunerative income, whereas the MPI is a

composite index of indicators for health, education and standard of living. Finally, the Wealth Index (WI) is a measure of a household's cumulative living standard in terms of the assets owned. Data show that there is high convergence between the HDI, HCR, MPI and WP indices for STs when computed across states. This convergence is high despite definitional differences between these indices and also that the data for building these indices are drawn from multiple sources. This suggests the robustness of the results across these development indices for STs, providing a strong basis for the following conclusions presented here.

1. In general, the human development status of the STs, as measured by HDI and MPI, is low in the eastern and central states, the western and southern region in the middle-range, while in the Northeast and sub-Himalayan region it is relatively high. When states are ranked based on a scale of low to high values in the levels of human development among STs, Madhya Pradesh, Bihar, Odisha, Jharkhand, Rajasthan and Chhattisgarh fall in the group of states with low human development; Andhra Pradesh, West Bengal, Gujarat, Maharashtra, Karnataka, Telangana, Jammu & Kashmir, Nagaland and Arunachal Pradesh fall in the medium level; and, Himachal Pradesh, Assam and other North-eastern states fall in the group of states with relatively high human development levels. In the former, the overall under-development of these states has also kept the STs' human development status low. In contrast, in the latter states the overall development status is better, and the human development status of STs is also higher.

2. The human development status of STs is significantly lower than the non-STs. The gap ranges from about 16 percentage points in Madhya Pradesh (highest) to almost no difference in Assam. The states of Madhya Pradesh, Odisha, Chattisgarh, Gujarat, Rajasthan, Maharashtra, Telangana and Karnataka exhibit relatively high difference of HDI between STs and non-STs.
3. The gap between the HDIs for STs and non-STs is narrowing over time though a visible gap exists. However, a similar conclusion on narrowing gaps cannot be drawn based on the estimates of MPI and WI. The inter-index differences in trends relating to gaps between STs and non-STs reflect both narrowing gaps in certain facets of development and persisting gaps in some other facets, as discussed in chapter 2.
4. The HDI for the STs is reduced when adjusted for income inequality. The extent of this reduction ranges from four to 10 per cent across states. In this regard, it is important to note that the more equitable income distribution can raise human development among STs. Here, providing employment and other self-employment through various programmes can help in raising and generating incomes.
5. A component-specific decomposition (of both HDI and MPI) for STs suggests that education is the most important component contributing to the indices. However, it is seen that the income (livelihoods) component in these indices is lagging, which highlights the need for improvements in incomes among STs. The chapter on livelihoods and employment analyses the deficits on this front and underscores the imperative of improving livelihoods and incomes.
6. There are large gaps between the STs and non-STs in terms of the number of years of schooling and owning computers. There has been some growth in the use of computers over the period 2015-16 to 2019-21; however, the extent of use of these is so low among the STs that it is the absolute deprivation that is the huge concern. Thus, there is a need for special attention and policies to bridge the digital divide along with efforts to remove gaps in education.

7. Indian society is segmented on socio-economic, regional and linguistic lines. STs fall towards the lower end of both social and economic hierarchy. This *inequity*, which embeds in the form of social discrimination, is an institutional problem and needs a sustained solution.

The analysis on the basis of the MPI and the wealth class reinforce each other; in peninsular India, the STs have a higher incidence of poverty by MPI and a larger share of population in the poorest wealth class. At the same time, the analysis of satellite data suggests that there is a faster rate of growth of night-light emissions in the areas inhabited by STs. Night light intensity is considered a proxy for the level of development in general. However, increase in night light intensity does not necessarily imply development for STs, as there is divergence of this development from the rate of reduction in poverty among the STs.

The above findings show that with a “business as usual” approach, it is unlikely that the STs will reach SDG 1 goal of “no poverty” by 2030. In order to eliminate poverty and build the capacity of the ST populations to achieve their aspirations, it is necessary to ensure the availability of basic services in transport, modern energy, health, and education, in addition to the availability of a minimum income. Further, it is also necessary to take measures to improve the STs’ advanced capabilities that they need to participate in the growing digital economy, and to prevent widening of related inequalities between the STs and non-Scheduled groups. The measures required for supporting the capability development of the STs are discussed in more detail below, based on the analyses in earlier chapters.

11.2 Education

Education is a crucial capability in enabling the STs to access better jobs. However, the ST communities continue to remain at the bottom of the educational pyramid, with regard to the access, completion, and outcomes at all stages of education. It is noteworthy that access to school education at the primary and upper primary levels has improved substantially, where STs have narrowed the gap with other social groups. Even at that level, however, they suffer as they are not being taught in their own mother tongues. This not only retards their

educational attainment but also increases alienation from their own cultures.

The STs have a higher proportion of non-literates than other communities and the lowest proportion of those completing high school. It needs to be highlighted that the residential option for schooling has improved school access beyond primary school in the ST habitations. However, while access to primary education has improved and is not much less than with other communities, the STs still have much poorer access to high school than other communities.

Educational problems for the ST children are exacerbated by the high levels of seasonal and short-term circular migration among the ST community. The ST children are also not able to utilise educational facilities in the destination areas of their migration, where the regional languages are likely to be different.

The IHD Perceptions Survey shows a clear demand for quality education that would enable ST persons to change their livelihoods. This is something that educational policy needs to take into account in order to improve both the quality of and access to education. However, given the high levels of poverty among the STs, any educational policy will need concurrent improvements in household livelihoods as otherwise educational outcomes of children will continue to be adversely affected. In this context, we discuss what can be done in educational policy to improve outcomes among the ST students:

For improving educational outcomes, recruitment of local ST teachers into teaching positions would help in enabling education to be better absorbed by the ST students. The residential schools also require better management and integration with the communities that they are expected to serve. Since residential schools serve a large area, these cannot be managed by the Gram Sabhas; but these could be brought under the block committees of the relevant ST communities.

The medium of instruction is an important area that needs to be addressed with the help of local teachers who either belong to the ST community or are bilingual so that they can use the local tribal language as well as the widely used medium of transaction in the state. This will not only result in

better communication with the ST students but will also help them make the transition from the local language to the regional or national languages that are currently the medium of instruction for higher-level studies. The New Education Policy of 2020 advocates an important step of the use of the mother tongue as a medium of primary education. It remains to be specified that the languages of the STs will be considered their mother tongues, and that primary educational materials will be prepared in those mother tongues, probably using the regional or national language scripts.

In the case of migrant families, it has been observed that rather than attending schools at the 'receiving end' (destination areas), if children stay behind and attend schools at the 'sending end' (origin areas), then there is less disruption in school attendance. In that sense, the local schools will need to provide secure residential options for the ST children.

The importance of income support to promote the ST students who are completing school education has been mentioned earlier. Such income support can also be an instrument to reduce gender gaps in educational attainment among the STs.

Physical access to secondary and higher-level schooling is the worst among the STs as compared to other social groups and may be a reason behind high dropout rates at these levels. More schools thus need to be built and access to more and better functioning *ashramshalas* needs to be ensured.

The inequality between the STs and the non-Scheduled communities in Information Technology (IT) and higher education needs to be addressed. While gaps in basic capabilities, seen in school enrolments, are narrowing between STs and non-STs, there are significant inequalities in advanced capabilities such as computer skills, technical and technological education. This is particularly important in the context of increasing dispensation of education via digital technology. Both in seeking admission into technical and science education and in completing it, there is also a need to fashion innovative ways of tutoring to enable the ST students to enter into and complete technical and science education.

The reduction of gaps in higher education in general between STs and non-STs and promotion of

technical, technological and professional education needs a big impetus to improve educational capabilities among the STs.

11.3 Health

Shortage of health facilities in the ST-populated areas has been well documented in Chapter 5 on health. It has also been pointed out that with overall low-income levels among the STs, there is a high level of dependence on public health facilities. With low incomes, coverage under medical insurance is also low. Thus, unlike the all-India trend of substantial improvements in the availability of privatised health facilities, what is needed in the ST areas is strengthening of the public health system.

The STs largely dwell in the undulating and forested physical environments. Difficulties in access arising from physical location are compounded by poor communication and insufficient access to medical facilities in most of these areas. The overall poor health status of the STs as compared to that of other communities indicates a neglect of serious health issues involving the ST communities. For instance, the Infant Mortality Rate (IMR) among the STs declined from 62 per 1,000 in 2005-06 to 42 per thousand in 2019-21. However, this figure was still quite high when compared with the national average at 35. The mortality rate under-five years (U5MR) is even higher among STs. There is a regional dimension to the problem of poor health standards of the STs as well. States in central/eastern India—Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha and West Bengal—show higher Neonatal Mortality Rate (NMR), Infant Mortality Rate (IMR), and Under-five years mortality rate (U5MR) values for the STs as compared to Himachal Pradesh, or the North-eastern states.

Poor nutrition, linked to high levels of income poverty are important factors behind poor health standards, but poor health outcomes are also related to infrastructure deficits. Access to clean drinking water and sanitation are both lower among the STs as compared to the other social groups. Unclean drinking water and drainage also lead to a high incidence of cholera and malaria, or even fatal falciparum malaria in some areas. As would be expected, the Body Mass Index (BMI) and anaemia indicators for the ST women are also worse than for women of other communities. The

BMI among eastern, central and western region was relatively high as compared to the other region in terms of BMI deficiency among ST women. As regards to improvements in BMI, the highest level of improvement was seen in Jammu and Kashmir and Rajasthan among ST women over 2019-21 over 2015-16.

There is a high prevalence of anaemia amongst the ST children in most central Indian states. The worst affected States are Andhra Pradesh, Gujarat, Madhya Pradesh, and Rajasthan. The picture is somewhat better in the North-eastern states though there are significant intra-North-east differences: Assam and Tripura show large proportions of anaemic children.

Urgent action is needed on a number of health issues for the ST populations. The NITI Aayog has identified 'Aspirational Districts', i.e., districts marked with poor socio-economic indicators. Of the 115 such districts, many have sizable ST populations. The high levels of MPI in these areas is a reflection of poor nutrition status among STs: of both adult and children. Malnutrition can be tackled through food and income subsidies, and the sustainable production and use of local foods. Schemes like the ICDS and the work of ASHAs are very important in spreading better awareness about good nutritional practices, including those that are indigenous to the region.

Ensuring safe motherhood is a critical need. What is required is a combination of institutional deliveries, regular obstetric services, transportation for mothers and children, and provisions of food supplements, including calcium, vitamins, and riboflavin. There is also a need to provide sufficient family planning services for the ST communities.

The advent of COVID-19 and the increased threat of mortality to persons with chronic lung ailments have led to attention being paid to the necessity of securing the use of clean cooking energy as a public health requirement. Clean cooking energy would benefit not only the ST women and their communities but also the nation as a whole, by reducing ambient air pollution across the country. These positive externalities strengthen the case for providing clean cooking energy to the ST women.

However, there are other diseases such as malaria and tuberculosis that are quite widespread. Both the use of insecticide-coated mosquito nets and control

of mosquito breeding spaces have worked to reduce morbidity due to malaria. Improved health services are needed, in general, but there is also an urgent need to deal with the deadly *falciparum* malaria and the new threat of corona virus.

Further, the ST communities need to be mobilised to end the practice of child marriage among them. An increase in the number of years at school will itself help in raising the age of marriage among the ST girls, and in improving reproductive health. Economic measures need to be supplemented by awareness among the community of the dangers of early marriage, particularly if it leads to the outcome of teenage pregnancy.

11.4 Livelihoods

The ability to use services, whether in education or health, however, depends crucially on people's livelihoods and the incomes that they provide to the ST households. Livelihoods are crucial because substantial expenditures to health and education are made out of households' incomes. A large number of ST persons, both men and women, join the labour force earlier than their counterparts from the other communities, largely due to the higher incidence of poverty and dropping out of school. Higher labour force participation is accompanied by higher unemployment levels among the educated. There is job reservation in government and public sector jobs for STs. But in the last two decades, economic growth has mainly stemmed from the private sectors, where the employment reservations benefits are not applicable. The STs have been unable to match the better educational levels of the non-STs to secure these private sector jobs.

A basic feature of ST livelihoods is that of the comparatively low productivity of the hill and mainly rainfed agriculture they engage in. Yields from agriculture achieved so far are just a fraction of what has been achieved in green revolution areas (for example, in states like Punjab and Haryana). The growth of landlessness, the low productivity of ST agriculture, and the general absence of a substantial *rabi* (winter) crop, have led to a high degree of out-migration of the STs. However, the migrants are concentrated in low-paid jobs in agriculture, construction, and casual or contract labour jobs in manufacturing. Their overall poor educational attainment constrains them from acquiring better

paid and more secure urban jobs. Forms of seasonal and circular short-term migration dominate the migration by STs, with migrants maintaining annual and long-term economic connections with their areas of origin, returning when they end up being unemployed, sick, or retired. Over the last two decades, young ST women from Central Indian states like Jharkhand have been migrating, mainly for employment as domestic workers to metropolitan centres.

A very large number of ST households have been deprived of their livelihoods by deforestation and displacement, as their lands have been taken over for mining and industrial projects. Without adequate replacement of reasonable livelihoods, the displaced are often pushed into the most precarious forms of urban livelihoods, seeking various forms of casual and low-paid labour. The data show that for both men and women, STs earn lower wages than other communities.

To increase the productivity of upland agriculture, development cannot follow a path similar to that in the plains; for example, there is limited scope for canal irrigation, limited to the small valley and flat areas. Radical technological innovation is needed to increase water retention in the upland areas, which could enable an increase in productivity. In addition, there could be a shift to high-value crops, where possible, to replace the production of mainly low-yield staples.

The ST communities substantially collect and produce Non-Timber Forest Products (NTFPs). The provisions of the Forest Rights Act (FRA) and Panchayat Extension to Scheduled Areas Act (PESA) enable ST communities to benefit from their management of these resources. However, even when they increase production and the processing of NTFPs, they face the problem of dealing with oligopolistic trading systems. Even schemes such as setting Minimum Support Prices (MSPs) for NTFPs may not benefit forest dwellers if the trading oligopolies are not overcome. Building organisations of collectives, such as women's Self-Help Groups (SHGs), and linking them with para-statal organisations such as TRIFED, could be a way of overcoming the existing issues in trading.

In view of the substantial migration undertaken by the STs, mainly into low-wage employment, it is necessary to improve the quality of that migration.

Other than in the low-skill manual labour, both industry and services generally require some levels of education. Nowadays, industry prefers workers who have at least completed high school. Thus, ensuring the completion of school education among the STs and providing them skill training are important to help ST migrants improve their position in the labour market.

Some STs work as labourers in the tea plantations in West Bengal, where they face special problems. Their minimum wage calculation is based on 1.5 dependents per earner, as against 3 dependents per earner for other workers in the country. The minimum wage calculation for plantation workers needs to be brought at par with that of other workers. An additional issue is that the same tribes in the tea plantations are listed as STs in West Bengal and Tripura, but not as STs in Assam.

It is well known that the STs have disproportionately suffered from displacement due to mineral-based industrialisation. The ST communities need to be allowed to decide on whether or not to hand over their lands for industrialisation, a right guaranteed by PESA, and the Supreme Court's Samatha judgment and manifested in the Niyamgiri case, where the Gram Sabhas rejected the mineral-industrialisation proposal. Honouring 'Free, Prior and Informed Consent' (FPIC) is part of India's national and international commitments. Wherever there is Gram Sabha-decided change in land use, schemes are also needed for rebuilding and creating new livelihoods. For example, some labour-intensive manufacturing units for garments have been set up near Ranchi. In the same manner many such initiatives are needed in the ST-populated areas. Such industrialisation would also reduce the distress migration among the STs.

The current pandemic-induced downturn in the Indian economy exposes the vulnerability of ST livelihoods. Many short-term circular migrants had to return to their rural homes, where income from their low-productivity agriculture proved insufficient for overall subsistence. There have been reports of insufficient food, and especially of their inability in accessing protein-rich foods such as pulses, which have to be purchased.

There is a need to consider an overall basic income programme of the Central and state governments

for the STs. Such a basic income programme will also help reduce the problems faced by the STs in displacement from their productive resources. With their overall low levels of incomes, the ST households and communities require a basic income guarantee to overcome consumption shocks that can often lead to food insecurity. MGNREGA has often functioned to provide some basic income in rural areas, but it has not been sufficient to prevent the early withdrawal of children from school. A basic income for ST persons and households could help reduce the incidence of ST children dropping out of school. Further, even when they migrate for employment the ST workers mostly concentrated in low-wage and precarious work. Thus, an overall minimum income support programme is needed for the ST workers and households.

11.5 Gender Equality

This report has noted that the position of ST women is significantly undermined within their households and communities, despite some encouraging trends of a reduction in some gender inequalities. Gender parity in school enrolment has improved over the years, but the gaps in higher education remain more compared to other groups. The decision-making powers with regard to even their own earned incomes among ST women are lower compared to other groups. In addition, like non-STs, most ST communities are patrilineal, with land and other property being owned by men and being passed on in the male line. There are also instances where women are subject to various forms of persecution and even killing with accusations and suspicions of witchcraft.

With regard to gender and women's wellbeing positive trends are seen in areas such as school enrolments, reduction in teenage pregnancies, and reduction in the levels of domestic violence. However, the gender gap in educational attainments is highest among STs; teenage pregnancies and domestic violence levels are still much higher among STs compared to other non-STs. There has been a sharper deterioration of child sex ratio in the recent years, even though STs have a remarkably higher sex ratio compared to non-STs. Further, though work participation rates are high among the ST women, they have very less control on their cash earnings compared to other social groups.

There are rigid social norms about land ownership and women's agency, which are difficult to change. Women's collectives, as in the form of SHGs or NGOs, have been able to promote some positive changes. Reservations in the local bodies have also been contributing to the participation and representation for women in Gram Panchayats. Sponsoring women's collectives and civil society organisations can induce significant changes in social norms, including norms around land rights and the exercise of women's agency. The basic income support suggested above should be targeted and transferred to women to improve their wellbeing as well as their status within the households and communities. Addressing the many disadvantages that women belonging to many of the ST communities face vis-à-vis men should become a priority, especially in health and education. Along with efforts aimed at women's empowerment and inclusion in general, immediate steps are required to actively promote higher education among ST women and remove gender disparity therein.

11.6 Infrastructure

Infrastructure forms a crucial base for human development. Some infrastructure, such as roads, are public goods which are supplied to all at a particular location. In Chapter 2, it was seen that a lower proportion of ST villages are connected by road than for other communities. Although the STs have shown a greater improvement in road accessibility than other communities, they still lag behind the others.

Some infrastructure, such as houses and amenities, are private goods. The STs rank much lower in terms of possessing *pukka* houses with internal latrines. Government schemes have increased access to electricity, latrines, and even clean cooking fuel, in the form of LPG. Nevertheless, official data still show their lower access to and utilisation of all these facilities.

Among the states, STs in Jharkhand, Odisha, and Rajasthan had largest proportion of households without access to electricity. Overall, the access to electricity for domestic use was found to be poorest among states in eastern and central region, which also accounted for the most glaring disparity between STs and non-STs. In household toilet facility, the disparity between STs and non-STs is most stark in the northern and western regions with most

marked differences in Rajasthan and other states. With regard to LPG cooking fuel, the states of Odisha and Jharkhand have the lowest proportion of STs accessing it. Reduction of the disparities in access to clean cooking fuel must continue to be a priority.

The first step that governments and communities thus need to address is to increase effective access to basic infrastructure. For instance, in the case of the low use of LPG by the STs, it is necessary to address both supply-side issues, such as irregularity in supply, and the low income earned by ST women.

It is imperative to improve access for the STs to not just basic infrastructure, such as roads and houses, but also to the modern infrastructure of the digital economy. The exponential growth of online education was no doubt spurred by the COVID-19 lockdowns. But online education is bound to grow, even at the school level. This will necessitate equipping the ST households with the requisite infrastructure of smart phones, fast Internet connections, and reliable electricity.

11.7 Hill Economies of North-East India

The STs who dominate the hill economies of North-east India are generally better-off economically and in terms of human development as compared to the STs inhabiting the rest of India. They also exhibit human development concerns manifested in aspirations to move from low-income to middle-income status. The hill economies need to fashion development policies based on their comparative advantage vis-à-vis the rest of India and also neighbouring countries. This would imply developing various production practices such as high-value agriculture, horticulture, orchid cultivation, and specialty tea or coffee, among others. This, in turn, necessitates the development of marketing infrastructure, including digital marketing. Methods of using community-certified land titles also need to be worked out to enable the use of bank credit.

The hill states of North-east India present special problems of development. The movement away from subsistence agriculture to market-based specialisation could increase per capita incomes, as has happened in the mountain states of Sikkim and Himachal Pradesh. This requires substantial State and banking support for such a transformation of the economy. This transformation, however, is being

carried out in a laissez-faire manner, in which the elites among the STs are able to monopolise the land, making many members of the ST community landless. The District Councils need to step in to democratise the manner of transformation of the land systems. They can make the change inclusive of the weaker sections, including women. In addition, given the collective identities and a measure of equality among the ST communities, the formation of cooperatives or producer companies needs to be promoted to help preserve the STs' collective identities and egalitarian norms even with market-based economic development.

11.8 Particularly Vulnerable Tribal Groups

The PVTGs face special problems of insecure livelihoods and poor human development. Their traditional livelihoods including food gathering and hunting have been constrained by the widespread loss of suitable forest areas. Living in reserved forest areas, some of the PVTGs are denied basic facilities. In addition, the productivity of their traditional livelihoods is so low that they would be unable to provide for modern needs, such as education or hospital-based medical care.

Reliable population data and other demographic details of PVTGs need to be captured and assessed. While there are serious concerns about the declining population of some of the PVTGs, discrepancies have been noted in the Census population data of these groups. Regular Census does not sufficiently capture the population of these groups, resulting in enumeration issues. Although some states have conducted baseline population surveys, there are issues of exclusion of groups and households within and outside micro-project areas. A standardised module canvassed at the same time across groups in the country will provide data to track and monitor the demographic changes, health, and survival issues of these groups.

Most of the PVTGs are leading settled lifestyles and livelihoods but are unable to access food security, healthcare, and educational services. To compound their vulnerable and marginal existence, they also face cultural discrimination and economic exploitation. These issues can be tackled if they gain access to secure livelihoods, rights on agricultural land, and forest resources. Implementation of FRA in both spirit and letter can partly aid this process.

FRA alone has limited jurisdiction as a large part of the PVTG habitat is outside forests. Therefore, a big push is needed by the governments for addressing the land and livelihood rights of these groups by using both FRA and PESA, and by acquiring and allocating substantial tracts of land and tenurial rights.

Rather than being evicted in the name of forest and wildlife conservation, the PVTGs need to be made partners in wildlife conservation programmes. Their knowledge of forests and wildlife can be used for conservation and biodiversity. A comprehensive strategy around livelihoods needs to be designed, recognising varied subsistence and income-generating activities and changes in habitats, even while seeking to restore their customary rights.

11.9 Governance

PESA provides for the local management of villages in accordance with prevalent "traditions and customs". It has been instrumental in enabling some ST communities to utilise their ownership of various products, including NTFPs and sand, for improving the well-being of village residents.

The FRA also provides for registration of both individual and community forest rights. The latter, however, have been somewhat poorly implemented. Where *pattas* have been granted for community forest rights, they have benefited forest conservation and led to improvement in livelihoods.

In North-east India, the Sixth Schedule Areas have the power to administer areas such as industry, forest, and agriculture, among others. However, they are constrained by the lack of adequate operational budgets; in addition, there is a lack of vision.

The large-scale displacement of the STs for industrial and mining projects is well-known. They also do not secure much of the resulting jobs from such displacement and are often paid insufficient compensations for them to recreate new and reasonably paying livelihoods.

Governance failure and the deep alienation of STs from the development process have often been identified as the key reasons for the ST-populated regions becoming the centres of left-wing extremism. Linked to this factor is the overall poor human development among STs, in general. On top of this,

the ST communities are often caught in the struggle between State forces and left-wing extremists. The ST communities are also vulnerable to various crimes.

The IHD's Perceptions Survey among a small sample of ST households revealed that there is a sense of alienation because of lack of empathy by the government officials and a feeling that the government does not work for them. These are serious issues of feelings of neglect that need to be addressed for development processes to be seen as beneficial to the STs. 60 per cent of the ST respondents felt that attitude of the government officials they interact with was partially or fully helpful. But the remaining 40 per cent do not find officials helpful, including nearly 25 per cent who find them hostile. Similarly, more than three-fourths of them felt that the attitude of doctors and staff in the nearby hospitals was helpful, while nearly a quarter of them felt their attitudes were either not helpful or hostile. Further, more than half of those accessing forest produce for consumption or sale, experienced difficulties or harassment by the personnel from forest department. Overall, 40 per cent felt that the government does not work in their interests, and nearly a quarter of them express a sense of fear of the government officials and police.

The survey also showed that more than half of the respondents identified poor government performance on many counts such as provision of public services, health facilities, road connectivity, and drinking water. The ST communities also received little information about government schemes. These are all pointers to the necessity of improving governance and relations between government institutions and officials, on one hand, and the ST communities, on the other.

The first responsibility of governments and the administration is to provide basic services to all the ST communities, including roads, electricity, clean cooking services, and educational and health services. In providing basic services at the village level, the Nagaland model can be adopted wherein the Gram Sabhas, and Gram Panchayats manage the funds for delivering basic services in the village. They are both constitutional bodies which can receive funds from the government exchequer. Be it *anganwadis* or primary education and health centres, all such institutions can be brought under the managerial oversight of the Gram Sabhas and Gram

Panchayats. This is likely to increase their efficiency in providing these services, as those who directly use them will also be in charge of managing them.

Governance is also linked to the capabilities developed by communities. Forest-dwelling ST communities are well known for their closeness to nature and the cultural capabilities they have developed in knowing and managing local environmental services. These cultural capabilities need to be brought into play in managing the forests and related environmental services. The FRA, through the provision of Community Forest Rights (CFR), provides for the decentralisation of forest management based on the indigenous technical knowledge and capabilities of forest-dwelling communities.

While developing forms of participatory democracy in managing their resources, it is important to overcome the general exclusion of women from the political institutions of the ST communities. This will help strengthen community management by drawing the distinct qualities of women in management.

It is also necessary to overcome the general mainstream tendency of looking down upon the ST communities and the discrimination they face at various levels. Feelings of denigration, alienation, or oppression are surely not conducive to human development.

It is recommended that a research institute be set up to document, study, and develop indigenous technical knowledge of the ST communities. Developing the arts and cultural products of the STs can also be part of the mandate of such a research institute, which could be developed as part of the existing National Tribal University in Madhya Pradesh.

11.10 Development and Aspirations

In line with the improvements and gaps in developmental outcomes and livelihood conditions analysed based on secondary data, the Perceptions Survey and insights from the qualitative fieldwork reiterate both development deficits as well as strong aspirations for positive change among the STs.

It should be highlighted that among the most basic needs of food, water, and shelter, a substantial number of respondents experienced improvements in food availability and consumption, and shelter, but

access to clean drinking water remains a serious concern. During the previous five years, nearly half of the respondents expressed that food consumption has improved, while a small share of them (2.5 per cent) experienced deterioration. With regard to drinking water, only 23 per cent experienced better access while 18 per cent experienced a worsening situation. Housing condition improved among 30 per cent, but worsened among 14 per cent of them, while the remaining experienced no change.

The economic condition of households and incomes have improved among a significant share of population. However, some experienced a fall in their livelihood prospects and incomes, while a majority experienced no change. Assessed over a longer period of ten years, 38 per cent of respondents expressed improvements in their household economic condition and 13 per cent said it worsened. In the last five years, more specifically in incomes and livelihoods, a quarter of them felt betterment in livelihoods and employment, and about 28 per cent experienced increases in incomes. Sadly, however, about 14 per cent of them expressed worsening experiences in livelihoods and incomes.

The survey also captured the aspirations of the STs especially in education and occupations. Strong aspirations for change are expressed in terms of occupations – either complete shift in occupations or change in occupational conditions especially in their earnings. Education is recognised as instrumental in their empowerment and better employment. Only about 6 per cent wanted their children to study until primary or upper-primary education. The remaining 18 per cent wanted to educate children till secondary and higher secondary levels. The majority wish their children to pursue higher levels of education including technical courses and under-graduate and graduate level courses. Equally, importantly, only 22 per cent respondents would like their children to study within or nearby villages. The majority would like to send their children to nearby towns as well as distant towns and cities for better education.

Similarly, in occupations and employment, 60 per cent of respondents would like to change their own occupations and the remaining 20 per cent would like to continue but wish better conditions and earnings in the job. In response to inter-generational change,

only 16 per cent would like their children to pursue the same occupation as the respondent, while a large share of 80 per cent wishes their children to pursue a different and better occupation. However, nearly two-thirds of them would like their children to work and live nearby, either within or nearby villages and towns; only 10 per cent want them to pursue their occupations away from the village and 21 per cent in any town or city. These wishes and aspirations express possible scenarios as well as a strong desire for better occupations, earnings and lives.

11.11 Ending Discrimination, Acknowledging Cultural Contributions

Besides facing development deficits, lack of livelihoods, and compromised educational and health outcomes, the ST communities are also subject to cultural discrimination. They are often regarded as backward. In the case of persons from the North-east, explicit instances of discrimination and violence have been documented in Indian cities, which arise from prejudices against differences in their food habits, cultures, and racial features.

While opposing discrimination against and denigration of the STs, it is necessary to highlight the unique cultural capabilities of the ST communities that add value to the rest of the country. Merit is now being found in not just their knowledge of ecological services and processes, but also in their world view that recognises an interrelation between all beings and things, biotic and abiotic.

Acknowledging the important contributions of the ST communities', and their world view that sees beneficial interlinkages between humans and nature, could also help eliminate the discrimination and denigration against them. Further, as the world grapples with the problem of climate change, it is useful to adopt the approach postulated by many ST communities about the interrelation between the human and the natural world, including that of animals, something the ongoing COVID-19 pandemic also brings sharply into focus.

Overall, there is thus needed to promote inclusive development to do away with discrimination against women while promoting egalitarian and participatory forms of economic and administrative development for the ST communities.

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ANNEX: Statistical Database

Section 1: DEMOGRAPHIC CHARACTERISTICS

Table S.1.1: Demographic characteristics, All India (Population in '000): 2011

All India	ST	Non-ST	All
Total Population	104546	1106309	1210855
Urban Population	10462	366644	377106
Rural Population	94084	739665	833749
Male Population	52547	570723	623270
Female Population	51999	535586	587585
Sex Ratio	990	938	943
Sex Ratio (Rural)	991	944	949
Sex Ratio (Urban)	980	928	929
Child Sex Ratio (0-6 Years)	957	914	918
Decadal Growth in per cent (2001-2011)	24	17.2	17.7

Source: Census of India, 2011

Table S.1.2: Number and Share of ST population, all India/state-wise: 2011

States/UTs/All India	Total Population (in '000)	ST Population (in '000)	per cent Of STs in the State to total State population	per cent Of STs in the State to total ST population in India
Eastern and Central Region				
Bihar	104099	1337	1.3	1.3
Chhattisgarh	25545	7823	30.6	7.5
Jharkhand	32988	8645	26.2	8.3
Madhya Pradesh	72627	15317	21.1	14.7
Odisha	41974	9591	22.8	9.2
West Bengal	91276	5297	5.8	5.1
Western Region				
Dadra & Nagar Haveli	344	179	52.0	0.2
Daman & Diu	243	15	6.3	0.0
Goa	1459	149	10.2	0.1
Gujarat	60440	8917	14.8	8.5
Maharashtra	112374	10510	9.4	10.1
Rajasthan	68548	9239	13.5	8.8
Northern Region				
Himachal Pradesh	6865	392	5.7	0.4
Jammu & Kashmir	12267	1275	10.4	1.2
Ladakh	274	218	79.5	0.2
Uttar Pradesh	199812	1134	0.6	1.1
Uttarakhand	10086	292	2.9	0.3

States/UTs/All India	Total Population (in '000)	ST Population (in '000)	per cent Of STs in the State to total State population	per cent Of STs in the State to total ST population in India
Southern Region				
Andaman & Nicobar Islands	381	29	7.5	0.0
Andhra Pradesh	49387	2631	5.3	2.5
Karnataka	61095	4249	7.0	4.1
Kerala	33406	485	1.5	0.5
Lakshadweep	64	61	94.8	0.1
Tamil Nadu	72147	795	1.1	0.8
Telangana	35194	3287	9.3	3.1
North-Eastern Region				
Arunachal Pradesh	1384	952	68.8	0.9
Assam	31206	3884	12.4	3.7
Manipur	2856	1167	40.9	1.1
Meghalaya	2967	2556	86.1	2.4
Mizoram	1097	1036	94.4	1.0
Nagaland	1979	1711	86.5	1.6
Sikkim	611	206	33.8	0.2
Tripura	3674	1167	31.8	1.1
All India	1210855	104546	8.6	100.0

Source: Census of India, 2011

Note: Chandigarh, Haryana, NCT of Delhi, Puducherry and Punjab have no ST population

Table S.1.3: Rural/urban population by social category, All India/state-wise (in '000 and percentage), 2011

States/UTs/All India	Urban			Rural		
	ST (per cent)	Non-ST (per cent)	All (No '000)	ST (per cent)	Non-ST (per cent)	All (No '000)
Eastern and Central Region						
Bihar	0.6	99.4	11758	1.4	98.6	92341
Chhattisgarh	10.0	90.0	5937	36.9	63.1	19608
Jharkhand	9.8	90.2	7933	31.4	68.6	25055
Madhya Pradesh	5.2	94.8	20069	27.2	72.8	52557
Odisha	8.5	91.5	7004	25.7	74.3	34971
West Bengal	1.5	98.5	29093	7.8	92.2	62183
Western Region						
Dadra & Nagar Haveli	17.4	82.6	161	82.5	17.5	183
Daman & Diu	4.4	95.6	183	13.3	88.3	60
Goa	6.8	93.2	907	15.9	84.1	552
Gujarat	3.5	96.5	25745	23.1	76.9	34695
Maharashtra	3.0	97.0	50818	14.6	85.4	61556
Rajasthan	3.2	96.8	17048	16.9	83.1	51500
Northern Region						
Himachal Pradesh	2.6	97.4	689	6.1	93.9	6176
Jammu & Kashmir	1.6	98.4	3371	13.7	86.3	8896
Ladakh	54.8	45.2	62	87.3	13.2	212
Uttar Pradesh	0.2	99.8	44495	0.7	99.3	155317
Uttarakhand	0.9	99.1	3049	3.8	96.2	7037
Southern Region						
Andaman & Nicobar Islands	1.4	99.3	143	11.4	88.6	237
Andhra Pradesh	2.3	97.7	14610	6.6	93.4	34776
Karnataka	3.5	96.5	23626	9.2	90.8	37469
Kerala	0.3	99.7	15935	2.5	97.5	17471
Lakshadweep	96.0	6.0	50	92.9	7.1	14
Tamil Nadu	0.4	99.6	34917	1.8	98.2	37230
Telangana	2.6	97.4	13609	13.6	86.4	21585
North-Eastern Region						
Arunachal Pradesh	51.1	48.9	317	74.1	26.0	1066
Assam	5.0	95.0	4399	13.7	86.3	26807
Manipur	13.4	86.7	834	52.2	47.8	2022
Meghalaya	70.4	29.6	595	90.1	9.9	2371
Mizoram	92.5	7.5	572	96.6	3.4	525
Nagaland	70.8	29.2	571	92.8	7.2	1408
Sikkim	25.3	74.0	154	36.5	63.5	457
Tripura	5.1	94.9	961	41.2	58.8	2712
All India	2.8	97.2	377106	11.3	88.7	833749

Source: Census of India, 2011

Table S.1.4: Decadal population growth (2001-2011) by social category (in per cent), all India/state-wise

States/UTs/All India	ST	Non-ST	All
Eastern and Central Region			
Bihar	76.2	25.0	25.4
Chhattisgarh	18.2	24.7	22.6
Jharkhand	22.0	22.6	22.4
Madhya Pradesh	25.2	19.1	20.3
Odisha	17.7	13.0	14.0
West Bengal	20.2	13.5	13.8
Western Region			
Dadra & Nagar Haveli	30.1	98.3	55.9
Daman & Diu	9.8	58.0	53.8
Goa	-	-	-
Gujarat	19.2	19.3	19.3
Maharashtra	22.5	15.4	16.0
Rajasthan	30.2	20.0	21.3
Northern Region			
Himachal Pradesh	60.3	11.0	12.9
Jammu & Kashmir	41.0	22.1	23.8
Ladakh	8.3	60.3	16.0
Uttar Pradesh	950.6	19.6	20.2
Uttarakhand	14.0	19.0	18.8
Southern Region			
Andaman & Nicobar Islands	-3.2	7.8	6.9
Andhra Pradesh	15.7	8.9	9.2
Karnataka	22.7	15.1	15.6
Kerala	33.1	4.6	4.9
Lakshadweep	6.6	0.7	6.3
Tamil Nadu	22.0	15.5	15.6
Telangana	19.5	13.0	13.6
North-Eastern Region			
Arunachal Pradesh	35.0	10.0	26.0
Assam	17.4	17.0	17.1
Manipur	57.5	18.4	31.8
Meghalaya	28.3	26.1	27.9
Mizoram	23.4	24.0	23.5
Nagaland	-3.6	23.9	-0.6
Sikkim	85.2	-5.9	12.9
Tripura	17.5	13.7	14.8
All India	24.0	17.2	17.7

Source: Census of India, 2011

Table S.1.5: Total population of particularly vulnerable tribal groups (PVTGs), states/all India, 2001-11

States/UTs/All India	2001	2011
Eastern and Central Region		
Bihar	10873	21619
Jharkhand	387358	488494
Madhya Pradesh (including Chhattisgarh)	785720	5701763
Odisha	68745	845646
West Bengal	85983	68868
Western Region		
Dadra & Nagar Haveli	--	--
Daman & Diu	--	--
Goa	--	--
Gujarat	106775	144593
Maharashtra	408668	2098095
Rajasthan	76237	111377
Northern Region		
Himachal Pradesh	--	--
Jammu & Kashmir (Including Ladakh)	--	--
Uttar Pradesh	5365	6951
Uttarakhand	47288	6005
Southern Region		
Andaman & Nicobar Islands	816	769
Andhra Pradesh	334144	538994
Karnataka	45899	50870
Kerala	20186	25440
Lakshadweep	--	--
Tamil Nadu	217937	255600
Telangana	--	--
North-Eastern Region		
Arunachal Pradesh	--	--
Assam	--	--
Manipur	1225	27524
Meghalaya	--	--
Mizoram	--	--
Nagaland	--	--
Sikkim	--	--
Tripura	165103	188220
All India	2768322	10281231

Source: Statistical Profile of Scheduled Tribes in India, 2013

Section 2: EMPLOYMENT AND UNEMPLOYMENT

Table S.2.1: Labour force by social category, all India (UPSS), 15+ years (in millions):2021-22

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	29.8	20.3	50.2	3.7	1.8	5.5	33.6	22.1	55.7
SC	51.9	23.6	75.5	15.	4.8	19.8	66.9	28.4	95.3
OBC	108.8	49.9	158.7	43.2	13.3	56.6	152.1	63.2	215.3
Other	49.	17.5	66.4	35.1	9.8	44.9	84.1	27.3	111.4
*Non-ST	209.7	90.9	300.7	93.3	28.	121.3	303.1	118.9	422.
All	239.6	111.3	350.8	97.	29.8	126.8	336.6	141.	477.7

Source: PLFS, 2021-22

Note: Non-ST include SC, OBC, and Other

Section 2.2 Labour Force Participation Rate, 15+ years (in per cent)**Table S.2.2: Labour force participation rate by social category, all India (UPSS), 15+ years (in per cent): 2021-22**

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	82.87	56.77	69.86	77.39	37.30	57.37	82.22	54.47	68.38
SC	79.65	36.16	57.92	77.56	26.37	52.63	79.17	34.01	56.73
OBC	77.47	35.67	56.61	75.39	23.74	49.83	76.86	32.25	54.66
Other	75.94	27.53	51.92	72.60	21.32	47.59	74.51	24.92	50.08
Non-ST	77.63	33.86	55.81	74.64	23.21	49.40	76.68	30.56	53.80
All	78.25	36.56	57.46	74.75	23.75	49.70	77.20	32.82	55.18

Source: PLFS, 2021-22

Table S.2.3: Labour force participation rate by social category, all India (UPS), 15+ years (in per cent):2021-22

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	81.8	44.8	63.4	76.7	34.4	55.6	81.2	43.6	62.5
SC	78.4	29.1	53.7	76.7	24.1	51.1	78.0	28.0	53.1
OBC	76.1	27.7	52.0	74.7	21.4	48.3	75.7	25.9	50.9
Other	74.6	20.9	47.9	72.1	19.6	46.5	73.6	20.3	47.3
Non-ST	76.3	26.4	51.4	74.0	21.1	48.0	75.6	24.8	50.4
All	76.9	28.6	52.8	74.1	21.6	48.3	76.1	26.6	51.5

Source: PLFS, 2021-22

Section 2.4 Unemployment Rate, Adults (15+ years) (in per cent), and Youth (15-29 years) Unemployment Rate (in per cent)

Table S.2.4: Unemployment rate by social category, all India (UPSS), 15+ years (in per cent): 2021-22

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	2.3	1.2	1.9	7.0	6.2	6.8	2.8	1.6	2.4
SC	4.4	2.1	3.6	7.2	7.4	7.2	5.0	3.0	4.4
OBC	3.7	2.1	3.2	5.4	7.4	5.9	4.2	3.2	3.9
Other	4.2	3.4	4.0	5.6	9.0	6.3	4.8	5.4	4.9
Non-ST	4.0	2.3	3.5	5.7	8.0	6.3	4.5	3.7	4.3
All	3.8	2.1	3.3	5.8	7.9	6.3	4.4	3.3	4.1

Source: PLFS, 2021-22

Table S.2.5: Unemployment rate by social category, all India (UPS), 15+ years (in per cent): 2021-22

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	3.1	1.7	2.6	7.2	7.9	7.4	3.6	2.3	3.1
SC	4.9	2.8	4.4	7.7	8.7	7.9	5.6	3.9	5.1
OBC	4.2	2.9	3.8	5.7	8.6	6.4	4.6	4.2	4.5
Other	4.8	5.0	4.8	5.9	10.3	6.8	5.2	7.1	5.6
Non-ST	4.5	3.2	4.2	6.1	9.2	6.8	5.0	4.8	5.0
All	4.3	3.0	4.0	6.1	9.1	6.8	4.9	4.4	4.7

Source: PLFS, 2021-22

Table S.2.6: Youth unemployment rate by social category, all India (UPSS): 2021-22

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	6.3	3.7	5.3	14.8	16.5	15.2	7.3	4.6	6.3
SC	11.8	8.9	11.1	18.1	23.8	19.2	13.2	11.6	12.9
OBC	11.5	9.0	10.9	14.9	21.7	16.5	12.4	12.5	12.5
Other	14.6	14.4	14.5	15.9	21.6	17.4	15.1	17.7	15.7
Non-ST	12.2	10.0	11.7	15.8	22.0	17.3	13.3	13.6	13.4
All	11.4	8.5	10.6	15.8	21.7	17.2	12.6	11.8	12.4

Table S.2.7: Youth unemployment rate by social category, all India (UPS), (in per cent): 2021-22

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	8.7	6.0	7.9	15.3	23.2	17.2	9.5	7.5	8.9
SC	13.8	12.3	13.5	19.9	27.6	21.3	15.1	15.6	15.2
OBC	13.3	13.7	13.4	15.9	25.1	17.9	14.1	17.5	14.7
Other	16.9	23.3	18.0	17.0	24.5	18.8	16.9	23.9	18.4
Non-ST	14.2	15.1	14.4	17.0	25.2	18.8	15.0	18.7	15.8
All	13.4	12.9	13.3	16.9	25.1	18.8	14.4	16.6	14.9

Source: PLFS, 2021-22

Table S.2.8: Educated youth unemployment rate by social category, all India (UPSS): 2021-22

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	11.7	10.4	11.2	25.8	29.8	27.0	13.9	12.9	13.6
SC	17.4	20.3	18.0	25.2	30.8	26.7	19.3	23.3	20.2
OBC	15.3	17.4	15.8	19.2	27.1	21.3	16.5	21.0	17.6
Other	18.9	23.6	19.9	18.6	24.6	20.3	18.8	24.2	20.1
Non-ST	16.6	19.5	17.2	19.9	26.6	21.7	17.7	22.4	18.8
All	16.2	18.1	16.6	20.1	26.7	21.9	17.5	21.4	18.4

Source: PLFS, 2021-22

Table S.2.9: Educated youth unemployment rate by social category, all India (UPS), (in per cent): 2017-18

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	22.2	28.3	23.5	24.6	30.8	26.5	22.5	28.8	24.0
SC	28.0	32.2	28.7	27.0	36.8	29.7	27.7	34.3	29.0
OBC	25.0	33.0	26.2	24.0	40.6	28.0	24.6	36.7	26.9
Other	25.7	38.7	28.1	23.1	33.5	25.8	24.4	35.7	27.0
Non-ST	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
All	25.5	33.9	27.0	24.0	36.7	27.3	25.0	35.3	27.1

Source: NSS, 68th Round, 2011-12

Section 2.5 Status of Employment, 15+ years (in per cent)

Table S.2.10: Status of employment by social category, all India (UPSS), 15+ years (in per cent): 2021-22

Social Groups	Rural				Urban				Total			
	SE	RE	CL	All	SE	RE	CL	All	SE	RE	CL	All
Total												
ST	61.7	8.4	29.9	100.0	28.7	50.6	20.7	100.0	61.7	8.4	29.9	100.0
SC	45.0	13.0	42.0	100.0	30.4	46.5	23.1	100.0	45.0	13.0	42.0	100.0
OBC	66.2	11.9	21.9	100.0	41.6	43.7	14.8	100.0	66.2	11.9	21.9	100.0
Other	68.8	16.9	14.4	100.0	42.1	51.4	6.5	100.0	68.8	16.9	14.4	100.0
Non-ST	61.4	13.3	25.3	100.0	40.0	47.0	13.0	100.0	61.4	13.3	25.3	100.0
All	61.5	12.6	26.0	100.0	39.5	47.1	13.4	100.0	61.5	12.6	26.0	100.0
Male												
ST	56.6	10.7	32.8	100.0	24.8	51.8	23.4	100.0	53.2	15.0	31.8	100.0
SC	42.2	14.3	43.5	100.0	30.2	44.9	24.9	100.0	39.5	21.0	39.5	100.0
OBC	63.5	14.1	22.4	100.0	41.3	43.2	15.5	100.0	57.2	22.3	20.5	100.0
Other	66.1	18.8	15.2	100.0	42.8	49.8	7.4	100.0	56.4	31.6	11.9	100.0
Non-ST	58.8	15.3	25.9	100.0	40.1	46.0	13.9	100.0	53.1	24.6	22.3	100.0
All	58.5	14.7	26.8	100.0	39.5	46.2	14.3	100.0	53.1	23.6	23.2	100.0
Female												
ST	69.2	5.1	25.7	100.0	36.7	48.1	15.3	100.0	66.7	8.4	24.9	100.0
SC	51.0	10.2	38.8	100.0	30.9	51.7	17.4	100.0	47.7	16.9	35.3	100.0
OBC	72.1	7.1	20.8	100.0	42.6	45.2	12.2	100.0	66.1	14.8	19.1	100.0
Other	76.2	11.6	12.2	100.0	39.5	57.2	3.3	100.0	63.5	27.4	9.1	100.0
Non-ST	67.4	8.8	23.8	100.0	39.5	50.5	10.0	100.0	61.1	18.1	20.7	100.0
All	67.7	8.1	24.2	100.0	39.3	50.3	10.3	100.0	62.0	16.6	21.4	100.0

Note: SE: Self Employment; RE: Regular Employment; CL: Casual Labour

Source: PLFS, 2021-22

Section 2.6 Industry of Employment, 15+ years (in per cent)

Table S.2.11: Industry of employment by social category, all India (UPSS), 15+ years (in per cent): 2021-22

Activities	ST	SC	OBC	Other	Non-ST	All
Total						
Agriculture, forestry and fishing	66.5	42.3	46.4	35.3	42.6	45.4
Mining and quarrying	0.7	0.4	0.3	0.2	0.3	0.3
Manufacturing	5.9	9.8	12.4	14.4	12.3	11.6
Electricity, Gas & Water supply	0.4	0.7	0.5	0.7	0.6	0.6
Construction	12.6	20.7	11.6	7.0	12.4	12.4
Trade, Hotel & restaurants	4.8	9.2	12.7	17.1	13.1	12.1
Transport, Storage & Communication	2.6	4.9	5.8	7.5	6.1	5.6
Finance, Business, Real Estate, etc.	0.4	1.2	1.6	3.8	2.1	1.9
Public Admin, Health, education and others	6.1	10.8	8.7	14.0	10.6	10.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Male						
Agriculture, forestry and fishing	58.1	34.2	39.0	31.1	35.8	38.1
Mining and quarrying	1.0	0.4	0.3	0.3	0.3	0.4
Manufacturing	6.6	9.3	12.5	14.4	12.3	11.8
Electricity, Gas & Water supply	0.5	0.9	0.6	0.9	0.8	0.7
Construction	17.1	26.3	14.3	8.8	15.4	15.6
Trade, Hotel & restaurants	6.0	11.2	15.3	20.0	15.7	14.7
Transport, Storage & Communication	4.3	6.8	7.8	9.0	7.9	7.5
Finance, Business, Real Estate, etc.	0.6	1.5	2.0	4.1	2.5	2.3
Public Admin, Health, education and others	5.8	9.4	8.1	11.4	9.3	8.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Female						
Agriculture, forestry and fishing	79.0	61.0	64.0	48.3	59.7	62.8
Mining and quarrying	0.2	0.3	0.1	0.0	0.1	0.1
Manufacturing	4.8	11.1	12.2	14.2	12.4	11.2
Electricity, Gas & Water supply	0.2	0.3	0.1	0.2	0.2	0.2
Construction	6.0	7.8	4.9	1.6	4.9	5.0
Trade, Hotel & restaurants	3.0	4.5	6.6	8.2	6.5	5.9
Transport, Storage & Communication	0.1	0.6	1.2	2.5	1.4	1.2
Finance, Business, Real Estate, etc.	0.1	0.4	0.8	2.8	1.2	1.0
Public Admin, Health, education and others	6.6	14.0	10.1	22.1	13.8	12.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: PLFS, 2021-22

Section 2.7 Occupational Distribution, 15+ years (in per cent)

Table S.2.12: Occupational distribution by social category, all India (UPSS), 15+ years (in per cent): 2021-22

Occupational Distribution	ST	SC	OBC	Other	Non-ST	All
Total						
Legislators, Senior Officials, and Managers	2.22	3.84	7.69	11.59	7.85	7.18
Professionals	2.18	3.09	4.30	9.58	5.41	5.03
Technicians and Associate Professionals	1.09	1.66	1.87	3.70	2.30	2.16
Clerks	1.00	1.64	1.81	3.09	2.11	1.98
Service Workers and Shop and Market Sales Workers	4.70	8.24	10.01	13.48	10.52	9.83
Skilled Agricultural and Fishery Workers	50.58	25.89	37.91	30.72	33.32	35.36
Craft and Related Trade Works	5.12	10.97	10.63	9.27	10.35	9.73
Plant and Machine Operators and Assemblers	3.10	5.19	5.78	6.01	5.70	5.40
Elementary Occupations	30.01	39.48	19.99	12.57	22.44	23.34
Total	100.00	100.00	100.00	100.00	100.00	100.00
Male						
Legislators, Senior Officials, and Managers	2.53	4.39	9.06	13.26	9.20	8.52
Professionals	2.16	2.78	4.04	8.21	4.92	4.64
Technicians and Associate Professionals	1.18	1.68	2.14	3.88	2.52	2.38
Clerks	1.16	1.75	1.99	3.26	2.29	2.17
Service Workers and Shop and Market Sales Workers	5.44	9.17	11.41	14.56	11.79	11.15
Skilled Agricultural and Fishery Workers	43.96	21.62	32.68	27.17	28.72	30.27
Craft and Related Trade Works	6.42	12.58	11.85	9.53	11.37	10.87
Plant and Machine Operators and Assemblers	5.03	7.14	7.72	7.58	7.55	7.30
Elementary Occupations	32.13	38.89	19.11	12.55	21.64	22.71
Total	100.00	100.00	100.00	100.00	100.00	100.00
Female						
Legislators, Senior Officials, and Managers	1.75	2.57	4.44	6.39	4.43	4.00
Professionals	2.22	3.78	4.91	13.82	6.65	5.94
Technicians and Associate Professionals	0.94	1.63	1.24	3.14	1.76	1.63
Clerks	0.77	1.38	1.38	2.57	1.65	1.51
Service Workers and Shop and Market Sales Workers	3.61	6.11	6.68	10.11	7.32	6.72
Skilled Agricultural and Fishery Workers	60.51	35.74	50.37	41.75	44.91	47.40
Craft and Related Trade Works	3.17	7.25	7.73	8.48	7.78	7.05
Plant and Machine Operators and Assemblers	0.22	0.68	1.16	1.12	1.04	0.91
Elementary Occupations	26.82	40.86	22.08	12.63	24.46	24.84
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: PLFS, 2021-22 (Unit Level Data)

Section 2.8 Top 20 Occupations of STs Employment, 15+ years

Table S.2.13: Top 20 occupations of Schedule Tribes workers (All), 2021-22

Occupation	NCO Code	Share Percentage	Workers(in 000')
Market Gardners & Crop Growers	611	43.7	23752.7
Agricultural, Forestry and Fishery Labourers	921	15.5	8403.7
Mining and Construction Labourers	931	11.0	5986.4
Animal Producers	612	2.8	1519.5
Mixed Crop and Animal Workers	613	2.1	1118.6
Shop Salespersons	522	2.0	1064.5
Car, Van and Motorcycle Drivers	832	1.5	800.5
Managing Directors and Chief Executives	112	1.4	774.9
Manufacturing Labourers	932	1.4	737.7
Subsistence Crop Farmers	631	1.3	702.0
Handicraft Workers	731	1.1	596.4
Building Frames and Related Trades Workers	711	0.9	508.9
Primary School and Early Childhood Teachers	234	0.9	497.3
Transport and Storage Labourers	933	0.9	486.4
Domestic, Hotel and Office Cleaners and Helpers	911	0.9	467.4
Heavy Truck and Bus Drivers	833	0.7	395.8
Protective Service Workers	541	0.7	380.9
Cooks	512	0.6	336.9
Building Finishers and Related Trades Workers	712	0.6	312.3
Garment and Related Trades Workers	753	0.5	278.4
Market Gardners & Crop Growers	611	43.7	23752.7
Agricultural, Forestry and Fishery Labourers	921	15.5	8403.7

Source: PLFS, 2021-22 (unit level data)

Table S.2.14: Top 20 occupations of Schedule Tribes workers (Male), 2021-22

Occupation	NCO	Share (per cent)	Workers (in 000)
Market Gardners & Crop Growers	611	39.5	12888.6
Mining and Construction Labourers	931	14.4	4684.6
Agricultural, Forestry and Fishery Labourers	921	13.7	4480.5
Car, Van and Motorcycle Drivers	832	2.5	800.6
Shop Salespersons	522	2.3	758.2
Manufacturing Labourers	932	1.6	531.9
Managing Directors and Chief Executives	112	1.6	515.2
Building Frames and Related Trades Workers	711	1.6	505.5
Mixed Crop and Animal Workers	613	1.5	493.1
Transport and Storage Labourers	933	1.5	476.6
Heavy Truck and Bus Drivers	833	1.2	395.8
Protective Service Workers	541	1.1	366.9
Animal Producers	612	1.1	359.7
Subsistence Crop Farmers	631	1.0	332.6
Building Finishers and Related Trades Workers	712	0.9	305.8
Handicraft Workers	731	0.9	295.7
Primary School and Early Childhood Teachers	234	0.8	248.8
Painters, Builders, Structure Cleaners and Related Trades Workers	713	0.8	247.5
Secondary Education Teachers	233	0.6	190.2
Business Services and Administration Managers	121	0.6	182.7

Source: PLFS, 2021-22 (unit level data)

Table S.2.15: Top 20 occupations of Schedule Tribes workers (Female), 2021-22

Occupation	NCO Code	Share Percentage	Workers(in 000')
Market Gardners & Crop Growers	611	49.9	10864.1
Agricultural, Forestry and Fishery Labourers	921	18.0	3923.2
Mining and Construction Labourers	931	6.0	1301.9
Animal Producers	612	5.3	1159.8
Mixed Crop and Animal Workers	613	2.9	625.5
Subsistence Crop Farmers	631	1.7	369.4
Shop Salespersons	522	1.4	306.3
Handicraft Workers	731	1.4	300.7
Domestic, Hotel and Office Cleaners and Helpers	911	1.3	291.2
Managing Directors and Chief Executives	112	1.2	259.7
Primary School and Early Childhood Teachers	234	1.1	248.5
Garment and Related Trades Workers	753	1.0	222.5
Manufacturing Labourers	932	1.0	205.8
Cooks	512	0.8	182.9
Nursing and Midwifery Associate Professionals	322	0.7	147.2
Food Processing and Related Trade Workers	751	0.5	106.0
Child Care Workers and Teachers' Aides	531	0.4	90.8
Secondary Education Teachers	233	0.4	87.4
Street and Market Salespersons	521	0.4	85.6
Forestry and Related Workers	621	0.4	83.9

Source: PLFS, 2021-22 (unit level data)

Section 2.9 Informal Employment, 15+ years (in per cent)

Table S.2.16: Distribution of informal workers by social category, all India (UPSS), 15+ years (in per cent): 2021-22

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	58.6	41.4	100.0	65.5	34.5	100.0	59.1	40.9	100.0
SC	67.8	32.2	100.0	75.1	24.9	100.0	69.1	30.9	100.0
OBC	67.7	32.4	100.0	76.8	23.2	100.0	69.7	30.3	100.0
Other	72.8	27.3	100.0	79.4	20.6	100.0	75.0	25.0	100.0
Non-ST	68.8	31.2	100.0	77.4	22.6	100.0	70.9	29.1	100.0
All	67.3	32.7	100.0	76.9	23.1	100.0	69.4	30.6	100.0

Source: PLFS, 2021-22 (unit level data)

Note: Informal Workers: Those workers who have not received any social security benefits

Table S.2.17: Distribution of informal workers by social category, all India (UPS), 15+ years (in per cent): 2021-22

Social Groups	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
ST	63.9	36.1	100.0	67.9	32.1	100.0	64.3	35.8	100.0
SC	72.2	27.8	100.0	77.1	22.9	100.0	73.1	27.0	100.0
OBC	72.8	27.2	100.0	79.1	20.9	100.0	74.3	25.8	100.0
Other	78.1	21.9	100.0	81.5	18.5	100.0	79.3	20.7	100.0
Non-ST	73.7	26.3	100.0	79.6	20.4	100.0	75.2	24.8	100.0
All	72.3	27.7	100.0	79.1	20.9	100.0	73.9	26.1	100.0

Source: PLFS, 2021-22 (unit level data)

Note: Informal Workers: Those workers who have not received any social security benefits

Section 2.10 Public sector employment, 15+ years (in per cent)

Table S.2.18: Public and private sector employment by social group, 2021-22 (UPSS), 15+ years

Social Group	Male			Female			Total		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Rural									
ST	4.3	95.7	100.0	4.8	95.2	100.0	4.6	95.5	100.0
SC	4.3	95.7	100.0	9.3	90.7	100.0	5.9	94.1	100.0
OBC	3.4	96.6	100.0	6.8	93.2	100.0	4.5	95.5	100.0
Others	5.3	94.7	100.0	7.4	92.6	100.0	5.8	94.2	100.0
Non-ST	4.0	96.0	100.0	7.6	92.4	100.0	5.1	94.9	100.0
Total	4.1	95.9	100.0	7.1	92.9	100.0	5.0	95.0	100.0
Urban									
ST	16.8	83.2	100.0	16.3	83.7	100.0	16.7	83.4	100.0
SC	13.0	87.1	100.0	16.5	83.5	100.0	13.8	86.2	100.0
OBC	7.2	92.8	100.0	10.7	89.3	100.0	8.0	92.0	100.0
Others	9.8	90.2	100.0	14.0	86.0	100.0	10.7	89.3	100.0
Non-ST	9.1	90.9	100.0	12.9	87.1	100.0	10.0	90.1	100.0
Total	9.4	90.6	100.0	13.1	86.9	100.0	10.2	89.8	100.0
Total									
ST	5.7	94.3	100.0	5.7	94.3	100.0	5.7	94.3	100.0
SC	6.2	93.8	100.0	10.5	89.5	100.0	7.5	92.5	100.0
OBC	4.5	95.6	100.0	7.6	92.4	100.0	5.4	94.6	100.0
Others	7.2	92.9	100.0	9.7	90.3	100.0	7.8	92.2	100.0
Non-ST	5.6	94.4	100.0	8.8	91.2	100.0	6.5	93.5	100.0
Total	5.6	94.4	100.0	8.3	91.7	100.0	6.4	93.6	100.0

Source: PLFS, 2021-22 (unit level data) Note: Those employment in Government and Public Sector

Table S.2.19: Labour force participation rate, work participation rate and unemployment rate by social category, state-wise (UPSS), 15+ years (in per cent): 2021-22

	LFPR			WPR			UR		
	ST	Non-ST	Total	ST	Non-ST	Total	ST	Non-ST	Total
Eastern and Central Region									
Bihar	47.0	41.7	41.8	46.3	39.2	39.3	1.4	6.1	5.9
West Bengal	68.9	53.7	54.6	66.7	51.8	52.7	3.1	3.5	3.5
Jharkhand	74.9	55.9	61.9	74.3	54.4	60.7	0.7	2.8	2.0
Orissa	70.0	51.6	55.8	67.3	48.0	52.4	3.9	6.9	6.0
Chattisgarh	75.4	61.6	66.5	74.4	59.7	64.9	1.4	3.1	2.4
Madhya Pradesh	70.6	59.9	62.0	70.1	58.5	60.8	0.7	2.5	2.1
Western Region									
Rajasthan	71.3	54.9	57.4	70.1	52.0	54.7	1.7	5.4	4.7
Gujarat	73.0	55.2	58.0	71.7	54.1	56.8	1.9	2.0	2.0
DAMAN & DIU And D & N HAVELI	72.4	67.4	69.4	67.0	65.0	65.8	7.5	3.5	5.2
Maharashtra	63.3	57.3	57.9	62.0	55.2	55.9	2.1	3.7	3.5
Goa	50.1	47.0	47.3	44.3	41.3	41.6	11.5	12.1	12.0
Northern Region									
Jammu & Kashmir	69.2	60.9	61.5	67.1	57.6	58.3	3.1	5.4	5.2
Himachal Pradesh	80.6	73.7	74.2	79.4	70.6	71.2	1.5	4.2	4.0
Uttaranchal	59.0	52.6	52.8	53.9	48.5	48.7	8.6	7.8	7.8
Uttar Pradesh	53.8	51.5	51.6	52.7	50.0	50.1	2.1	2.9	2.9
Ladakh	60.6	54.2	60.1	58.9	47.7	58.1	2.8	12.0	3.4
Southern Region									
Andhra Pradesh	79.8	59.4	60.4	77.1	56.9	57.8	3.4	4.3	4.2
Karnataka	64.4	54.1	54.7	62.7	52.4	53.0	2.6	3.2	3.2
Lakshadweep	44.5	82.1	44.9	36.7	82.1	37.2	17.5	0.0	17.2
Kerala	72.3	53.9	54.1	69.8	48.7	48.8	3.5	9.7	9.6
Tamil Nadu	80.0	58.4	58.6	78.0	55.6	55.8	2.5	4.8	4.8
A & N Islands	53.1	64.3	64.1	46.7	59.4	59.2	12.1	7.7	7.8
Telangana	72.7	59.4	60.7	71.2	56.7	58.1	2.1	4.5	4.2
North-Eastern Region									
Sikkim	73.5	69.6	71.1	71.8	68.8	69.9	2.3	1.1	1.6
Arunachal Pradesh	50.2	54.8	51.1	45.7	53.2	47.1	8.9	3.0	7.7
Nagaland	64.5	55.2	64.2	58.6	52.1	58.4	9.2	5.6	9.1
Manipur	43.5	45.5	44.6	37.8	42.9	40.6	13.1	5.9	9.0
Mizoram	51.8	38.1	51.6	49.0	33.4	48.9	5.3	12.3	5.4
Tripura	57.6	50.0	52.1	55.0	48.8	50.6	4.5	2.3	3.0
Meghalaya	64.3	45.6	62.1	62.8	43.5	60.5	2.4	4.7	2.6
Assam	56.7	53.8	54.2	54.0	51.8	52.1	4.9	3.7	3.9

Source: PLFS, 2021-22 (unit level data)

Table S.2.20: Status of employment by social category, state-wise (UPSS), 15+ years (in per cent): 2021-22

		ST				Non-ST				Total			
		SE	RE	CE	Total	SE	RE	CE	Total	SE	RE	CE	Total
Eastern and Central Region	Bihar	54.7	3.7	41.6	100.0	59.1	10.1	30.7	100.0	59.0	10.0	31.1	100.0
	West Bengal	30.9	13.3	55.8	100.0	51.4	22.5	26.1	100.0	49.9	21.8	28.3	100.0
	Jharkhand	71.9	5.7	22.4	100.0	62.4	17.9	19.7	100.0	66.1	13.2	20.8	100.0
	Orissa	63.6	7.2	29.2	100.0	58.4	17.9	23.7	100.0	59.9	14.8	25.3	100.0
	Chattisgarh	75.9	11.2	12.9	100.0	60.6	19.7	19.7	100.0	66.7	16.3	17.0	100.0
	Madhya Pradesh	54.1	6.3	39.6	100.0	66.1	15.5	18.4	100.0	63.4	13.4	23.2	100.0
Western Region	Rajasthan	71.1	9.9	19.1	100.0	68.3	18.9	12.8	100.0	68.9	17.1	14.0	100.0
	Gujarat	47.6	24.4	28.0	100.0	56.2	33.3	10.6	100.0	54.5	31.5	14.0	100.0
	DAMAN & DIU And D & N HAVELI	43.2	49.6	7.3	100.0	9.5	90.5	0.0	100.0	23.1	74.0	2.9	100.0
	Maharashtra	40.1	13.6	46.3	100.0	46.5	31.5	22.0	100.0	45.8	29.4	24.9	100.0
	Goa	38.1	45.0	16.9	100.0	36.8	57.2	6.0	100.0	37.0	55.9	7.1	100.0
Northern Region	Jammu & Kashmir	63.6	8.6	27.8	100.0	62.2	23.4	14.3	100.0	62.4	22.1	15.5	100.0
	Himachal Pradesh	67.8	16.3	16.0	100.0	69.2	20.6	10.2	100.0	69.1	20.3	10.6	100.0
	Uttaranchal	65.5	15.2	19.4	100.0	59.6	29.5	10.9	100.0	59.8	29.0	11.2	100.0
	Uttar Pradesh	53.8	15.1	31.1	100.0	71.1	12.1	16.8	100.0	70.9	12.1	17.0	100.0
	Ladakh	55.1	27.2	17.7	100.0	59.3	26.9	13.8	100.0	55.4	27.2	17.4	100.0
Southern Region	Andhra Pradesh	59.8	12.1	28.1	100.0	42.3	24.6	33.1	100.0	43.4	23.8	32.8	100.0
	Karnataka	44.6	16.5	38.9	100.0	48.4	26.5	25.1	100.0	48.1	25.7	26.1	100.0
	Lakshadweep	23.1	50.2	26.7	100.0	34.5	38.3	27.2	100.0	23.4	49.9	26.7	100.0
	Kerala	5.1	34.3	60.5	100.0	38.6	30.9	30.5	100.0	38.2	30.9	30.9	100.0
	Tamil Nadu	58.0	9.7	32.3	100.0	36.4	30.7	32.9	100.0	36.7	30.3	32.9	100.0
	A & N Islands	0.0	48.8	51.2	100.0	43.0	27.4	29.6	100.0	42.5	27.7	29.8	100.0
	Telangana	72.1	10.4	17.4	100.0	62.7	22.2	15.1	100.0	63.8	20.8	15.4	100.0
North-Eastern Region	Sikkim	54.1	38.7	7.2	100.0	56.0	37.3	6.7	100.0	55.2	37.9	6.9	100.0
	Arunachal Pradesh	73.6	23.3	3.1	100.0	65.6	22.0	12.4	100.0	71.9	23.0	5.1	100.0
	Nagaland	63.4	29.8	6.8	100.0	66.8	16.1	17.1	100.0	63.5	29.4	7.1	100.0
	Manipur	69.5	25.7	4.8	100.0	60.6	29.3	10.1	100.0	64.2	27.8	7.9	100.0
	Mizoram	68.7	25.1	6.3	100.0	83.5	7.9	8.6	100.0	68.8	24.9	6.3	100.0
	Tripura	59.1	10.2	30.7	100.0	48.9	20.5	30.6	100.0	52.0	17.3	30.6	100.0
	Meghalaya	48.6	18.5	32.9	100.0	37.9	34.5	27.6	100.0	47.7	19.9	32.4	100.0
	Assam	77.4	11.4	11.2	100.0	57.9	21.1	20.9	100.0	61.0	19.6	19.4	100.0

Note: SE-Self-Employed, RE-Regular Worker, CE-Casual Labour;

Source: PLFS, 2021-22 (unit level data)

Table S.2.21: Industrial classification by social category, state-wise (UPSS), 15+ years (in per cent):2021-22

	ST										Non-ST									
	1	2	3	4	5	6	7	8	9	All	1	2	3	4	5	6	7	8	9	All
Bihar	66.8	0.0	12.1	0.0	11.4	2.4	2.0	0.5	4.8	100.0	47.9	0.1	6.8	0.2	17.7	13.7	4.7	2.3	6.6	100.0
West Bengal	72.6	0.5	4.9	0.0	8.3	4.6	3.3	0.4	5.4	100.0	34.4	0.3	18.0	0.2	9.5	15.0	7.8	3.0	11.9	100.0
Jharkhand	67.5	1.5	4.3	0.0	17.7	3.4	1.8	0.6	3.2	100.0	41.8	1.2	10.1	0.2	16.8	13.8	6.2	2.5	7.4	100.0
Orissa	64.7	1.3	4.1	0.1	16.9	4.1	4.4	0.5	3.9	100.0	38.6	1.0	9.5	0.4	16.4	16.2	6.4	2.3	9.1	100.0
Chattisgarh	79.4	0.3	2.1	0.5	7.3	2.2	1.1	0.7	6.3	100.0	56.6	0.7	7.2	0.5	10.5	10.4	2.8	2.0	9.4	100.0
Madhya Pradesh	73.2	1.1	3.6	0.3	15.9	2.2	1.2	0.5	2.2	100.0	58.5	0.3	7.6	0.4	8.9	11.1	3.6	1.8	7.8	100.0
Rajasthan	70.2	1.3	3.6	0.1	14.9	2.8	2.3	0.7	4.2	100.0	51.3	0.8	9.9	0.4	10.7	11.2	4.2	2.7	8.7	100.0
Gujarat	58.9	0.2	17.0	0.1	10.1	5.2	1.8	0.7	6.0	100.0	37.7	0.2	26.5	0.4	4.2	13.5	5.8	3.6	8.1	100.0
DAMAN & DIU And D& N Haveli	47.9	0.0	32.4	0.0	2.1	6.0	3.1	2.5	5.9	100.0	4.0	0.0	74.2	0.1	0.1	9.7	2.9	1.5	7.5	100.0
Maharashtra	74.0	0.3	5.6	0.3	4.1	6.1	2.1	1.2	6.3	100.0	41.7	0.1	13.8	0.3	4.4	13.5	8.0	6.4	11.8	100.0
Goa	36.6	1.9	14.6	0.0	0.6	13.1	15.0	1.6	16.7	100.0	3.4	1.8	18.2	0.7	5.1	35.4	10.9	5.5	19.1	100.0
Jammu & Kashmir	55.2	0.0	2.7	0.9	26.0	5.6	5.1	0.1	4.5	100.0	41.2	0.1	9.9	0.3	14.7	14.0	5.2	1.8	12.8	100.0
Himachal Pradesh	62.7	0.0	2.3	0.5	12.6	9.1	5.4	0.1	7.4	100.0	58.8	0.2	8.4	0.5	8.3	7.0	4.8	1.8	10.2	100.0
Uttaranchal	54.0	0.0	3.7	0.0	15.0	10.9	6.1	0.0	10.2	100.0	41.9	0.1	10.4	0.4	9.5	16.8	5.5	3.5	11.8	100.0
Haryana	22.3	0.0	24.8	0.0	41.5	1.6	0.0	0.0	9.8	100.0	30.9	0.1	17.0	0.4	12.2	15.0	6.4	4.5	13.5	100.0
Uttar Pradesh	51.0	0.0	8.8	0.3	24.7	2.3	2.9	1.1	8.8	100.0	55.3	0.0	8.4	0.2	12.7	11.5	3.5	1.9	6.5	100.0
Andhra Pradesh	71.7	0.0	5.6	0.4	4.5	7.1	3.3	1.6	5.7	100.0	44.3	0.6	12.3	0.3	8.0	11.8	8.5	2.9	11.2	100.0
Karnataka	58.4	0.1	6.4	0.1	10.3	11.6	4.4	1.7	6.8	100.0	46.0	0.3	11.6	0.3	7.1	13.4	8.7	4.1	8.4	100.0
Lakshadweep	17.8	0.0	9.4	2.1	4.9	11.7	14.9	4.9	34.1	100.0	0.0	0.0	69.5	0.0	2.5	0.0	7.6	1.0	19.5	100.0
Kerala	36.2	0.0	19.7	0.0	28.7	3.1	1.8	0.0	10.5	100.0	26.2	0.2	11.6	0.3	10.3	17.7	10.0	6.5	17.3	100.0
Tamil Nadu	76.3	0.0	7.2	0.1	6.1	4.7	3.0	1.6	1.0	100.0	32.4	0.2	18.9	0.3	11.0	14.3	9.3	4.0	9.5	100.0
A & N Islands	0.0	0.0	0.0	0.0	51.2	0.0	0.0	0.0	48.8	100.0	33.1	0.0	4.3	0.8	12.5	14.2	7.7	6.4	20.9	100.0
Telengana	76.4	0.5	7.6	0.2	2.4	3.5	2.7	0.9	5.8	100.0	48.8	0.2	13.0	0.4	5.9	11.1	8.6	3.8	8.3	100.0

	ST									Non-ST										
	1	2	3	4	5	6	7	8	9	All	1	2	3	4	5	6	7	8	9	All
Sikkim	43.0	0.0	1.4	0.7	8.2	6.9	10.5	0.2	29.2	100.0	41.5	0.0	6.3	0.2	7.8	11.2	7.0	1.0	24.9	100.0
Arunachal Pradesh	63.3	0.1	0.6	1.7	1.8	10.4	2.0	0.9	19.3	100.0	53.3	0.1	5.0	1.0	7.1	14.1	4.5	0.9	14.1	100.0
Nagaland	46.6	0.4	4.7	1.2	5.7	9.8	5.0	7.3	19.3	100.0	8.0	0.0	2.2	0.0	17.5	53.5	10.6	2.6	5.6	100.0
Manipur	55.7	0.0	4.1	0.1	3.0	9.0	2.9	4.1	21.2	100.0	23.4	0.3	18.2	0.0	10.3	16.5	5.8	7.1	18.3	100.0
Mizoram	40.8	0.3	4.7	0.1	6.1	19.1	6.2	5.0	17.7	100.0	64.2	0.0	0.0	0.0	8.6	10.3	16.9	0.0	0.0	100.0
Tripura	49.0	0.0	3.1	0.0	22.9	7.6	4.7	1.3	11.3	100.0	24.2	0.1	7.0	0.2	19.6	19.7	8.7	4.8	15.7	100.0
Meghalaya	50.5	0.8	3.8	1.2	7.8	12.4	6.2	0.8	16.6	100.0	16.0	3.5	1.5	0.7	6.8	34.0	10.5	5.2	21.9	100.0
Assam	60.9	0.0	7.9	0.4	4.9	11.5	5.6	1.7	7.2	100.0	42.5	0.3	9.4	0.1	10.7	18.3	4.5	2.1	12.1	100.0

Source: PLFS, 2021-22

Code - 1: Agriculture, etc.; 2: Mining & Quarrying; 3: Manufacturing; 4: Electricity, Gas & Water supply; 5: Construction; 6: Trade, Hotel & restaurants; 7: Transport, Storage & Communication; 8: Finance, Business, Real Estate, etc.; 9: Public Administration, Health, education, etc.

Section 3: INCOME AND POVERTY STATUS

Table S.3.1: Household type based on major source of income by social group, 2021-22, Rural

Social Group	Household Type						Total
	SEA	SENA	RE	CLA	CLNA	OTH	
ST	45.7	7.7	11.0	15.3	16.1	4.1	100.0
SC	24.2	14.7	13.9	16.2	23.7	7.3	100.0
OBC	40.5	18.3	12.9	8.3	13.0	7.0	100.0
Others	39.3	20.5	17.3	6.2	8.0	8.7	100.0
Non-ST	36.1	17.9	14.2	9.8	14.6	7.5	100.0
Total	37.3	16.7	13.8	10.5	14.7	7.1	100.0

Source: PLFS, 2021-22 (unit level data)

Note: SEA: Self Employment in Agriculture; SENA: Self Employment in Non-Agriculture; RE: Regular Employment; CLA: Casual Labour in Agriculture; CLNA: Casual Labour in Non-Agriculture, OTH: Others

Table S.3.2: Household type based on major source of income by social group, 2021-22, Urban

Social Group	Household Type				Total
	SE	RE	CL	Others	
ST	19.6	51.2	17.5	11.8	100.0
SC	26.5	43.6	20.6	9.3	100.0
OBC	34.8	40.4	12.6	12.2	100.0
Others	34.8	45.5	5.4	14.4	100.0
Non-ST	33.5	42.8	11.0	12.6	100.0
Total	33.0	43.2	11.3	12.6	100.0

Source: PLFS, 2021-22 (unit level data); Note: SE: Self Employment; RE: Regular Employment; CL: Casual Labour

Table S.3.3: Distribution of workers by Monthly Per Capita Consumption Expenditure quintile (UPSS), 15+ years, 2021-22

Sector	Social Group	MPCE Quintile					Total
		1	2	3	4	5	
Rural	ST	32.6	26.7	21.0	13.3	6.3	100.0
	SC	23.2	23.3	21.9	20.2	11.4	100.0
	OBC	19.3	22.6	22.9	21.7	13.5	100.0
	Others	11.4	17.5	23.1	26.3	21.7	100.0
	Non-ST	18.6	21.7	22.7	22.3	14.8	100.0
	Total	20.6	22.4	22.4	21.0	13.6	100.0
Urban	ST	13.6	13.2	16.6	22.4	34.3	100.0
	SC	10.5	12.0	18.5	25.6	33.4	100.0
	OBC	7.3	10.8	15.6	23.5	42.7	100.0
	Others	3.7	6.3	11.5	21.0	57.6	100.0
	Non-ST	6.5	9.3	14.6	22.9	46.7	100.0
	Total	6.8	9.5	14.7	22.9	46.2	100.0
Total	ST	30.9	25.4	20.6	14.2	9.0	100.0
	SC	20.7	21.0	21.2	21.3	15.9	100.0
	OBC	16.2	19.6	21.0	22.2	21.0	100.0
	Others	8.4	13.0	18.5	24.2	36.0	100.0
	Non-ST	15.2	18.2	20.4	22.5	23.8	100.0
	Total	17.0	19.0	20.4	21.5	22.0	100.0

Source: PLFS, 2021-22 (unit level data)

Table S.3.4: Distribution of workers by MPCE quintile (UPSS), 15+ years, 2021-22

Region	State	ST						Non ST					
		1	2	3	4	5	Total	1	2	3	4	5	Total
Northern	Jammu & Kashmir	2.1	4.3	23.0	42.8	27.8	100.0	10.4	15.5	24.4	24.4	25.4	100.0
	Himachal Pradesh	3.3	15.5	32.9	28.8	19.5	100.0	3.6	12.4	21.0	31.7	31.3	100.0
	Punjab	0.0	0.0	29.3	6.4	64.3	100.0	3.6	7.2	14.1	26.3	48.9	100.0
	Chandigarh	0.0	0.0	0.0	0.0	0.0	0.0	1.2	9.3	17.6	24.2	47.6	100.0
	Uttaranchal	12.7	17.9	29.6	23.0	16.8	100.0	7.8	14.9	21.9	27.2	28.1	100.0
	Haryana	28.8	18.3	6.1	11.2	35.5	100.0	6.4	16.0	18.9	28.2	30.4	100.0
	Delhi	4.8	0.7	28.3	12.3	54.0	100.0	1.5	2.8	9.2	24.0	62.5	100.0
	Uttar Pradesh	34.0	8.5	44.7	7.2	5.6	100.0	26.7	25.6	21.9	16.1	9.7	100.0
	Ladakh	13.9	6.2	21.9	43.9	14.0	100.0	24.1	27.8	18.2	15.8	14.2	100.0
Eastern and Central	Bihar	68.3	11.3	10.6	8.6	1.1	100.0	35.1	29.9	19.9	11.4	3.7	100.0
	West Bengal	11.5	34.0	26.1	21.9	6.4	100.0	5.2	15.7	27.8	29.1	22.1	100.0
	Jharkhand	41.9	30.7	14.0	8.9	4.4	100.0	30.4	21.4	17.0	15.3	16.0	100.0
	Orissa	32.8	30.5	19.5	12.8	4.4	100.0	20.5	24.5	22.1	21.7	11.2	100.0
	Chattisgarh	51.7	27.4	12.8	4.9	3.2	100.0	44.7	24.7	15.1	8.9	6.6	100.0
	Madhya Pradesh	45.2	29.6	17.6	6.4	1.3	100.0	18.0	21.3	24.2	21.9	14.6	100.0
Western	Rajasthan	21.7	21.8	26.2	20.3	10.0	100.0	13.1	13.5	20.3	29.5	23.6	100.0
	Gujarat	29.3	24.6	20.1	12.8	13.2	100.0	7.9	15.3	20.2	26.7	29.9	100.0
	Daman & Diu D & N Haveli	31.9	20.5	21.7	12.4	13.5	100.0	0.6	2.0	13.7	23.7	59.9	100.0
	Maharashtra	40.8	27.9	16.8	10.1	4.3	100.0	14.8	19.6	20.4	19.3	25.9	100.0
	Goa	0.0	0.0	5.8	29.4	64.7	100.0	0.0	0.1	1.4	15.6	82.9	100.0
Southern	Andhra Pradesh	7.2	24.6	30.5	19.1	18.7	100.0	2.9	9.4	19.0	32.7	36.0	100.0
	Karnataka	23.1	20.6	27.9	14.5	13.8	100.0	16.0	19.3	20.5	20.0	24.2	100.0
	Lakshadweep	4.1	7.7	6.5	22.2	59.5	100.0	0.0	0.0	13.8	0.0	86.2	100.0
	Kerala	6.2	21.0	11.8	22.2	38.7	100.0	0.9	4.3	10.5	26.0	58.3	100.0
	Tamil Nadu	10.6	12.8	11.6	33.6	31.3	100.0	4.4	11.1	16.1	27.2	41.3	100.0
	Puducherry	0.0	0.0	0.0	100.0	0.0	100.0	2.1	4.6	15.8	25.6	52.0	100.0
	A & N Islands	0.0	0.0	0.0	0.0	100.0	100.0	1.0	5.9	8.5	21.1	63.5	100.0
	Telangana	9.5	14.8	25.0	22.1	28.6	100.0	4.5	10.1	18.9	25.8	40.6	100.0
North Eastern	Sikkim	2.1	5.9	23.5	38.4	30.2	100.0	1.2	8.4	14.1	29.9	46.4	100.0
	Arunachal Pradesh	6.1	16.9	22.8	32.0	22.2	100.0	19.9	14.8	23.1	24.4	17.8	100.0
	Nagaland	8.4	24.4	25.3	23.6	18.3	100.0	7.5	24.7	36.7	4.8	26.3	100.0
	Manipur	10.4	20.0	33.5	24.9	11.2	100.0	5.4	12.7	24.2	27.2	30.5	100.0
	Mizoram	4.0	6.2	14.1	30.1	45.6	100.0	0.0	22.4	34.0	27.0	16.6	100.0
	Tripura	0.0	11.6	25.1	32.5	30.8	100.0	2.2	8.7	15.7	36.9	36.5	100.0
	Meghalaya	11.3	14.3	22.0	32.0	20.2	100.0	11.4	2.0	15.1	29.3	42.1	100.0
	Assam	11.0	27.9	34.9	18.5	7.7	100.0	19.3	25.7	24.1	20.8	10.0	100.0

Source: PLFS, 2021-22 (unit level data)

Section 4: EDUCATION

Section S.4.1 Distance from school

Table S.4.1: Social group wise percentage distribution of households by distance to schools having (a) primary (b) middle, and (c) secondary educational level in India in 2017-18

Social Groups	All India			Rural			Urban		
	Less than 2 Km	Between 2km to <5 km	5 km and beyond	Less than 2 Km	Between 2km to <5 km	5 km and beyond	Less than 2 Km	Between 2km to <5 km	5 km and beyond
Primary School									
ST	92.4	7.3	0.3	92.4	7.3	0.3	92.8	7.0	0.1
SC	93.4	6.4	0.2	93.6	6.1	0.2	92.4	7.6	0.0
OBC	93.4	6.5	0.2	93.5	6.4	0.2	93.1	6.8	0.1
Others	92.9	6.9	0.2	92.5	7.3	0.3	93.5	6.4	0.1
Non-ST (total)	93.2	6.6	0.2	93.2	6.6	0.2	93.2	6.7	0.1
All	93.1	6.7	0.2	93.1	6.6	0.2	93.2	6.8	0.1
Upper Primary School									
ST	69.9	21.4	8.7	67.2	23.3	9.5	94.8	3.6	1.6
SC	83.3	12.2	4.5	79.7	14.7	5.6	96.5	2.9	0.6
OBC	84.5	11.2	4.3	80.7	13.8	5.5	95.9	3.3	0.8
Others	87.6	9.3	3.1	80.2	14.7	5.0	97.3	2.1	0.6
Non-ST (total)	85.2	10.8	4.0	80.3	14.3	5.4	96.6	2.7	0.7
All	83.9	11.7	4.4	78.9	15.3	5.8	96.6	2.7	0.7
Secondary School									
ST	28.7	44.3	27.1	28.8	41.3	29.9	27.1	71.3	1.7
SC	31.7	56.4	12.0	32.6	52.6	14.9	28.5	70.2	1.3
OBC	31.6	55.0	13.4	33.2	49.3	17.5	26.9	72.0	1.0
Others	27.8	64.7	7.5	32.6	54.9	12.5	21.5	77.6	1.0
Non-ST (total)	30.4	58.5	11.1	32.9	51.6	15.5	24.6	74.4	1.0
All	30.2	57.3	12.5	32.4	50.5	17.1	24.7	74.3	1.1

Source: IHD's own calculation from unit level NSS data

Table S.4.2: Social group wise percentage distribution of all persons (15 years and above) by highest level of education successfully completed in states of India 2017-18

States/UTs/All India	ST					Non-ST					All India				
	Not literate	Literate up to Primary	Middle	Secondary & Higher Secondary	Graduate and above	Not literate	Literate up to Primary	Middle	Secondary & Higher Secondary	Graduate and above	Not literate	Literate up to Primary	Middle	Secondary & Higher Secondary	Graduate and above
Eastern and Central Region															
Bihar	51.5	10.8	12.4	22.7	2.6	36.1	19.4	14.4	24.1	6.0	36.4	19.2	14.3	24.1	6.0
Chhattisgarh	34.3	23.6	19.3	18.8	4.1	24.0	21.1	18.6	27.6	8.7	27.4	21.9	18.8	24.8	7.2
Jharkhand	40.7	23.9	17.0	15.8	2.6	28.0	20.4	18.9	26.4	6.3	31.6	21.4	18.4	23.4	5.3
Madhya Pradesh	45.7	22.7	18.1	10.7	2.7	27.4	19.2	20.6	23.4	9.4	31.2	19.9	20.1	20.8	8.0
Odisha	42.1	26.7	13.3	16.3	1.7	21.9	24.5	17.9	27.0	8.7	26.5	25.0	16.9	24.6	7.1
West Bengal	41.0	28.5	18.3	11.0	1.4	21.5	27.7	19.8	22.0	9.1	22.6	27.7	19.7	21.4	8.6
Western Region															
Dadra & Nagar Haveli	38.8	21.6	26.4	12.3	0.9	6.3	11.2	17.3	52.0	13.3	25.7	17.4	22.8	28.3	5.9
Daman & Diu	8.1	12.9	37.1	18.8	23.0	5.1	19.1	16.4	36.5	22.9	5.4	18.4	18.7	34.6	22.9
Goa	13.4	5.3	14.7	41.8	24.7	5.4	14.1	19.8	45.9	14.8	5.9	13.5	19.4	45.7	15.5
Gujarat	33.4	23.6	16.6	22.7	3.7	17.8	23.0	17.8	30.5	10.9	20.4	23.1	17.6	29.2	9.8
Maharashtra	33.5	21.9	17.9	20.9	5.7	15.8	17.1	16.4	36.2	14.5	17.5	17.6	16.6	34.7	13.7
Rajasthan	47.6	18.7	14.2	13.2	6.4	34.6	17.3	16.1	21.9	10.2	36.3	17.5	15.8	20.7	9.7
Northern Region															
Himachal Pradesh	18.7	15.9	16.1	41.5	7.8	15.4	15.8	12.4	44.0	12.4	15.6	15.8	12.6	43.9	12.1
Ladakh	39.4	6.7	19.6	29.3	5.1	0.1	31.4	35.3	28.6	4.6	37.3	8.0	20.5	29.2	5.1
Uttar Pradesh	36.5	13.5	15.9	20.4	13.8	32.2	14.9	16.7	25.5	10.7	32.3	14.9	16.7	25.4	10.8
Uttarakhand	19.5	13.3	24.8	35.6	6.8	14.6	14.2	17.1	34.7	19.4	14.9	14.2	17.6	34.8	18.7

States/UTs/All India	ST					Non-ST					All India				
	Not literate	Literate up to Primary	Middle	Secondary & Higher Secondary	Graduate and above	Not literate	Literate up to Primary	Middle	Secondary & Higher Secondary	Graduate and above	Not literate	Literate up to Primary	Middle	Secondary & Higher Secondary	Graduate and above
	Southern Region														
Andaman & Nicobar Islands	22.0	29.1	25.4	18.7	4.7	12.5	19.2	15.9	38.9	13.5	14.0	20.7	17.4	35.8	12.1
Andhra Pradesh	46.2	15.3	9.3	22.2	7.0	38.1	18.5	9.0	25.8	8.6	38.5	18.3	9.0	25.6	8.5
Karnataka	37.4	17.9	13.6	26.8	4.3	25.4	16.9	12.6	33.2	12.0	26.2	17.0	12.6	32.7	11.4
Kerala	17.8	21.2	16.3	34.8	9.9	4.0	19.3	19.5	42.2	15.0	4.3	19.4	19.4	42.0	14.9
Lakshadweep	3.1	28.8	18.5	39.6	10.0	0.0	15.5	15.4	59.2	9.9	3.0	28.4	18.4	40.3	10.0
Tamil Nadu	30.1	22.5	15.5	25.7	6.3	19.4	19.5	14.2	33.1	14.0	19.6	19.5	14.2	32.9	13.8
Telangana	37.9	13.5	13.1	28.5	7.0	31.3	11.8	8.7	31.7	16.5	31.7	12.0	9.0	31.5	15.8
	North-Eastern Region														
Arunachal Pradesh	31.5	16.5	16.4	26.4	9.2	32.0	18.7	19.1	23.0	7.2	31.6	17.0	17.1	25.6	8.7
Assam	16.7	26.1	20.6	33.0	3.6	16.7	25.5	20.3	30.9	6.7	16.7	25.6	20.4	31.2	6.2
Manipur	12.6	9.5	21.4	42.8	13.6	13.9	7.8	19.6	41.5	17.3	13.4	8.5	20.4	42.0	15.7
Meghalaya	11.9	33.7	25.7	23.3	5.4	11.0	31.2	21.8	23.4	12.6	11.7	33.3	25.1	23.3	6.5
Mizoram	2.0	22.6	35.6	31.9	8.0	0.0	41.9	31.7	13.5	12.9	1.9	23.0	35.5	31.5	8.1
Nagaland	15.5	17.8	17.9	28.6	20.2	16.5	30.1	16.1	23.6	13.7	15.5	18.3	17.8	28.4	19.9
Sikkim	12.0	20.2	15.8	39.6	12.4	12.1	21.9	19.8	37.0	9.2	12.0	21.3	18.4	37.9	10.4
Tripura	19.1	42.9	27.8	8.1	2.2	10.0	35.3	27.8	19.0	8.0	13.1	37.8	27.8	15.3	6.0
Total	36.0	22.1	17.1	19.8	5.0	25.1	18.6	16.1	29.0	11.2	26.1	18.9	16.2	28.2	10.6

Source: IHD's own calculation from unit level NSS data

Section 4.3 Enrolment Status

Table S.4.3: Social group wise percentage distribution of persons (3 to 35 years) by their enrolment status in India in 2017-18

Indicators	ST	Non-ST				All
		SC	OBC	Others	Non-ST (total)	
All India						
Never enrolled	18.4	16.5	14.1	8.5	13.1	13.6
Currently not attending	41.4	41.3	41.3	46.2	42.6	42.5
Currently attending	40.3	42.3	44.7	45.3	44.3	43.9
Rural						
Never enrolled	19.6	18.0	15.9	10.4	15.2	15.7
Currently not attending	40.7	39.5	39.6	44.7	40.7	40.7
Currently attending	39.7	42.5	44.5	44.8	44.1	43.5
Urban						
Never enrolled	9.2	10.7	9.3	5.9	8.2	8.3
Currently not attending	46.3	47.9	45.6	48.2	47.0	46.9
Currently attending	44.5	41.4	45.2	45.9	44.8	44.8
Men						
Never enrolled	14.6	13.4	11.0	7.8	10.6	11.0
Currently not attending	42.3	43.2	41.3	45.1	42.8	42.7
Currently attending	43.1	43.4	47.7	47.1	46.6	46.3
Women						
Never enrolled	22.5	20.0	17.5	9.4	15.9	16.6
Currently not attending	40.4	39.0	41.2	47.5	42.4	42.2
Currently attending	37.1	41.0	41.3	43.1	41.7	41.2

Source: IHD's own calculation from unit level NSS data

Table S.4.4: Social group wise percentage distribution of persons (3 to 35 years) by their enrolment status in states of India in 2017-18

States/UTs/All India	ST			Non-ST			All		
	Never enrolled	Currently not attending	Currently attending	Never enrolled	Currently not attending	Currently attending	Never enrolled	Currently not attending	Currently attending
Eastern and Central Region									
Bihar	40.6	24.2	35.2	22.7	30.7	46.6	23.0	30.5	46.4
Chhattisgarh	11.6	42.3	46.2	11.1	44.6	44.3	11.3	43.9	44.9
Jharkhand	19.5	37.7	42.8	13.6	39.0	47.4	15.3	38.7	46.1
Madhya Pradesh	24.7	40.3	35.0	14.2	43.3	42.5	16.6	42.6	40.8
Odisha	22.3	40.2	37.6	10.6	50.6	38.8	13.8	47.8	38.5
West Bengal	19.4	40.0	40.7	10.5	47.0	42.6	11.0	46.6	42.5
Western Region									
Dadra & Nagar Haveli	13.7	42.8	43.5	5.8	63.7	30.5	10.4	51.6	38.0
Daman & Diu	4.5	68.2	27.3	7.8	65.9	26.4	7.5	66.1	26.4
Goa	0.0	61.5	38.5	3.4	49.4	47.2	3.3	49.9	46.8
Gujarat	13.1	46.0	40.9	9.1	50.8	40.1	9.8	49.9	40.3
Maharashtra	18.2	43.1	38.7	6.9	48.9	44.2	8.1	48.3	43.6
Rajasthan	26.6	32.1	41.3	17.2	35.6	47.2	18.5	35.1	46.4
Northern Region									
Himachal Pradesh	6.1	48.8	45.1	5.5	41.3	53.2	5.5	41.9	52.6
Ladakh	22.2	41.0	36.8	9.8	35.8	54.4	21.9	40.8	37.3
Uttar Pradesh	20.0	36.1	43.9	18.6	37.0	44.3	18.7	37.0	44.3
Uttarakhand	9.1	46.0	44.9	8.6	43.2	48.2	8.7	43.3	48.0
Southern Region									
Andaman & Nicobar Islands	1.6	60.8	37.6	2.1	53.3	44.6	2.1	54.2	43.7
Andhra Pradesh	24.6	50.6	24.8	15.4	41.6	43.0	16.0	42.2	41.8
Karnataka	14.6	49.1	36.3	11.2	48.6	40.2	11.4	48.7	39.9
Kerala	9.5	37.9	52.6	3.5	43.2	53.3	3.6	43.1	53.3
Lakshadweep	4.7	52.4	42.9	0.0	100.0	0.0	4.6	53.4	42.0
Tamil Nadu	7.5	56.0	36.5	5.0	49.7	45.3	5.1	49.8	45.1
Telangana	8.4	44.4	47.2	8.5	45.1	46.4	8.5	45.0	46.5
North-Eastern Region									
Arunachal Pradesh	17.3	31.9	50.8	20.2	36.1	43.8	17.9	32.8	49.4
Assam	10.7	49.5	39.8	9.8	49.3	41.0	9.9	49.3	40.8
Manipur	6.3	48.0	45.7	6.0	41.8	52.2	6.1	44.5	49.4
Meghalaya	10.6	41.2	48.2	10.2	40.0	49.8	10.5	41.0	48.5
Mizoram	8.3	45.9	45.8	9.3	44.0	46.8	8.3	45.9	45.8
Nagaland	9.7	40.6	49.7	19.4	51.8	28.8	10.1	41.0	48.9
Sikkim	1.4	55.4	43.2	1.1	50.3	48.5	1.2	52.1	46.7
Tripura	4.8	47.8	47.3	2.2	47.6	50.3	3.1	47.7	49.3
Total	18.4	41.4	40.3	13.1	42.6	44.3	13.6	42.5	43.9

Source: IHD's own calculation from unit level NSS data

Section 4.4: Reason(s) for Never Enrolled

Table S.4.5: Social group wise percentage distribution of persons (3 to 35 years) by major reasons for their being never enrolled in India in 2017-18

Indicators	ST	Non-ST				All
		SC	OBC	Others	Non-ST (Total)	
Not interested in education	21.1	21.4	19.7	15.2	19.4	19.6
Financial constraints	13.4	15.0	13.9	14.6	14.3	14.2
Engaged in domestic activities	8.5	7.7	7.8	4.1	7.1	7.3
Engaged in economic activities	3.1	3.5	2.5	1.3	2.6	2.6
School is far off	1.5	0.7	1.0	1.1	0.9	1.0
Timings of educational institution not suitable	0.3	0.5	0.7	0.2	0.5	0.5
Language/medium of instruction used unfamiliar	0.2	0.1	0.1	0.0	0.1	0.1
Inadequate number of teachers	0.1	0.0	0.1	0.0	0.0	0.0
Quality of teachers not satisfactory	0.1	0.1	0.1	0.1	0.1	0.1
Route to educational institution not safe	0.1	0.1	0.1	0.0	0.1	0.1
No tradition in the community	4.8	3.6	3.4	2.8	3.4	3.6
Non-availability of female teacher	0.0	0.0	0.0	0.0	0.0	0.0
Non-availability of girls' toilet	0.0	0.2	0.1	0.1	0.1	0.1
Others	46.6	46.9	50.5	60.4	51.2	50.6
Marriage	0.2	0.4	0.3	0.1	0.3	0.3
All	100	100	100	100	100.0	100.0

Source: IHD's own calculation from unit level NSS data

Table S.4.6: Social group wise percentage distribution of persons (3 to 35 years) by major reasons for their being never enrolled in India (rural and urban) in 2017-18

Indicators	Rural						Urban						
	ST	Non-ST			All	ST	SC	OBC	Others	Non-ST	OBC	Others	Non-ST
		SC	OBC	Others									
Not interested in education	21.1	22.5	20.2	17.3	20.4	20.5	21.2	14.4	17.3	10.3	14.8	15.1	
Financial constraints	13.3	14.3	13.1	13.0	13.4	13.4	14.3	19.2	17.4	18.4	18.0	17.9	
Engaged in domestic activities	8.9	7.9	8.5	4.4	7.7	7.9	2.4	7.1	4.4	3.6	4.7	4.6	
Engaged in economic activities	3.3	3.4	2.6	1.3	2.6	2.7	0.4	3.5	2.2	1.3	2.2	2.1	
School is far off	1.6	0.6	1.1	1.4	1.0	1.1	0.3	1.2	0.6	0.1	0.6	0.6	
Timings of educational institution not suitable	0.4	0.5	0.7	0.3	0.6	0.5	0.0	0.5	0.5	0.1	0.4	0.4	
Language/medium of instruction used unfamiliar	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.4	0.0	0.2	0.2	
Inadequate number of teachers	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	
Quality of teachers not satisfactory	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.3	0.2	0.2	
Route to educational institution not safe	0.1	0.1	0.1	0.0	0.1	0.1	0.4	0.1	0.1	0.0	0.1	0.1	
No tradition in the community	4.6	3.6	3.1	2.7	3.2	3.4	8.0	3.7	4.6	3.2	4.0	4.2	
Non-availability of female teacher	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Non-availability of girls' toilet	0.0	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.3	0.1	0.1	
Others	46.2	46.4	50.1	59.4	50.4	49.8	52.7	50.1	52.1	62.6	54.5	54.4	
Marriage	0.2	0.4	0.2	0.1	0.3	0.3	0.2	0.4	0.4	0.0	0.3	0.3	
All	100	100	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

Source: IHD's own calculation from unit level NSS data

Table S.4.7: Social group wise percentage distribution of persons (3 to 35 years) by major reasons for their being never enrolled in India (women and men) in 2017-18

Indicators	Women					Men						
	ST	Non-ST			All	ST	Non-ST			All		
		SC	OBC	Others			Non-ST	Others	Non-ST			
Not interested in education	22.3	21.0	19.8	15.7	19.5	19.9	19.4	22.0	19.5	14.8	19.2	19.3
Financial constraints	12.9	14.6	13.1	14.5	13.7	13.6	14.1	15.6	14.9	14.7	15.1	14.9
Engaged in domestic activities	12.2	12.6	12.4	7.3	11.7	11.7	3.5	1.4	1.2	0.9	1.2	1.5
Engaged in economic activities	1.4	1.6	1.1	0.6	1.2	1.2	5.5	6.0	4.5	2.0	4.4	4.5
School is far off	1.9	0.8	1.4	1.9	1.3	1.4	1.1	0.5	0.5	0.2	0.5	0.5
Timings of educational institution not suitable	0.4	0.4	0.6	0.3	0.5	0.5	0.2	0.6	0.7	0.2	0.6	0.5
Language/medium of instruction used unfamiliar	0.2	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1
Inadequate number of teachers	0.1	0.0	0.1	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Quality of teachers not satisfactory	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.1	0.1
Route to educational institution not safe	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.2	0.0	0.1	0.1
No tradition in the community	6.0	4.6	4.8	4.0	4.6	4.8	3.2	2.4	1.5	1.7	1.8	2.0
Non-availability of female teacher	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-availability of girls' toilet	0.0	0.3	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Others	42.1	43.3	45.9	55.4	46.7	46.0	52.7	51.5	56.9	65.4	57.1	56.5
Marriage	0.4	0.7	0.5	0.2	0.5	0.5						
All	100	100	100	100.0	100	100	100	100	100	100.0	100.0	100.0

Source: IHD's own calculation from unit level NSS data

Section 4.5: Currently Attending: Type of Current Education

Table S.4.8: Social group wise percentage distribution of students (3 to 35 years) by type of course pursuing (general, and technical/ professional) in India in 2017-18

Indicators	ST	Non-ST				All
		SC	OBC	Others	Non-ST	
All India						
General	98.1	97.0	96.4	94.5	96.0	96.2
Professional/technical	1.9	3.1	3.6	5.6	4.0	3.9
Rural						
General	98.6	97.6	97.7	96.9	97.5	97.6
Professional/technical	1.4	2.4	2.3	3.1	2.5	2.4
Urban						
General	94.8	94.4	93.0	91.2	92.5	92.6
Professional/technical	5.2	5.7	7.0	8.8	7.5	7.4
Men						
General	97.7	96.5	95.8	93.6	95.3	95.5
Professional/technical	2.3	3.5	4.2	6.4	4.7	4.5
Women						
General	98.6	97.5	97.1	95.6	96.8	96.9
Professional/technical	1.4	2.5	2.9	4.4	3.2	3.1

Source: IHD's own calculation from unit level NSS data

Table S.4.9: Social group wise percentage distribution of students (3 to 35 years) by type of course pursuing (general, and technical/ professional) in States of India in 2017-18

States/UTs/All India	ST		Non-ST		All	
	General	Professional/ Technical	General	Professional/ Technical	General	Professional/ Technical
Eastern and Central Region						
Bihar	98.9	1.1	99.2	0.8	99.2	0.8
Chhattisgarh	98.8	1.2	97.9	2.1	98.2	1.8
Jharkhand	99.6	0.5	98.5	1.5	98.8	1.2
Madhya Pradesh	98.9	1.1	96.6	3.4	97.0	3.0
Odisha	98.7	1.3	97.0	3.0	97.4	2.6
West Bengal	99.3	0.7	98.0	2.0	98.1	1.9
Western Region						
Dadra & Nagar Haveli	99.4	0.6	98.1	1.9	99.0	1.0
Daman & Diu	99.6	0.4	92.2	7.8	92.9	7.1
Goa	97.0	3.0	90.5	9.5	90.7	9.3
Gujarat	98.1	1.9	94.5	5.5	95.2	4.8
Maharashtra	96.4	3.6	94.0	6.0	94.2	5.8
Rajasthan	97.8	2.2	97.0	3.0	97.1	2.9
Northern Region						
Himachal Pradesh	94.6	5.4	95.1	4.9	95.0	5.0
Ladakh	96.8	3.2	99.1	0.9	96.9	3.1
Uttar Pradesh	98.5	1.5	97.8	2.2	97.8	2.2
Uttarakhand	98.1	1.9	95.9	4.1	96.1	4.0
Southern Region						
Andaman & Nicobar Islands	94.1	5.9	94.9	5.1	94.9	5.2
Andhra Pradesh	94.9	5.1	91.9	8.1	92.0	8.0
Karnataka	95.1	4.9	93.0	7.0	93.1	6.9
Kerala	97.8	2.2	89.4	10.6	89.6	10.4
Lakshadweep	98.9	1.1			98.9	1.1
Tamil Nadu	95.6	4.4	91.4	8.6	91.5	8.5
Telangana	97.4	2.6	94.5	5.5	94.7	5.3
North-Eastern Region						
Arunachal Pradesh	96.0	4.0	96.7	3.3	96.1	3.9
Assam	99.2	0.8	99.1	0.9	99.1	0.9
Manipur	98.0	2.0	98.2	1.8	98.1	1.9
Meghalaya	99.7	0.3	99.5	0.5	99.7	0.3
Mizoram	98.4	1.6	99.9	0.2	98.5	1.6
Nagaland	96.1	3.9	97.1	2.9	96.1	3.9
Sikkim	97.7	2.3	96.4	3.6	96.8	3.2
Tripura	99.6	0.4	98.8	1.2	99.1	0.9
Total	98.1	1.9	96.0	4.1	96.2	3.9

Source: IHD's own calculation from unit level NSS data

Table S.4.10: Social group wise percentage distribution of persons (15 to 59 years) in India by status of vocational/technical training in 2017-18

Indicators	ST	Non-ST				All
		SC	OBC	Others	Non-ST	
All India						
Receiving formal vocational/ technical training	0.3	0.5	0.6	0.8	0.6	0.6
Received formal vocational/ technical training	0.5	1.1	1.1	2.0	1.4	1.3
Received vocational/technical training other than formal vocational/technical training	3.0	3.1	3.4	2.8	3.1	3.1
Did not receive vocational/technical training	96.2	95.4	94.9	94.5	94.9	95.0
Rural						
Receiving formal vocational/ technical training	0.2	0.4	0.5	0.5	0.4	0.4
Received formal vocational/ technical training	0.4	0.8	0.8	1.2	0.9	0.8
Received vocational/technical training other than formal vocational/technical training	3.0	3.1	3.3	2.8	3.1	3.1
Did not receive vocational/technical training	96.4	95.7	95.5	95.5	95.5	95.6
Urban						
Receiving formal vocational/ technical training	0.6	0.7	1.0	1.1	1.0	1.0
Received formal vocational/ technical training	1.3	2.0	1.9	2.9	2.3	2.3
Received vocational/technical training other than formal vocational/technical training	3.2	3.1	3.5	2.8	3.1	3.1
Did not receive vocational/technical training	94.8	94.2	93.6	93.2	93.5	93.6
Men						
Receiving formal vocational/ technical training	0.4	0.6	0.9	1.0	0.9	0.8
Received formal vocational/ technical training	0.8	1.3	1.4	2.5	1.7	1.6
Received vocational/technical training other than formal vocational/technical training	4.6	4.8	5.2	4.4	4.9	4.9
Did not receive vocational/technical training	94.3	93.3	92.5	92.1	92.6	92.7
Women						
Receiving formal vocational/ technical training	0.2	0.3	0.4	0.5	0.4	0.4
Received formal vocational/ technical training	0.3	0.8	0.9	1.4	1.0	0.9
Received vocational/technical training other than formal vocational/technical training	1.4	1.4	1.4	1.1	1.3	1.3
Did not receive vocational/technical training	98.1	97.5	97.4	97.1	97.3	97.4

Source: IHD's own calculation from unit level NSS data

Table S.4.11: Social group wise percentage distribution of persons (15 to 59 years) in states of India by status of vocational/technical training in 2017-18

States/UTs/All India	ST		Non-ST		All	
	Receiving or received vocational/technical training	Did not receive vocational/technical training	Receiving or received vocational/technical training	Did not receive vocational/technical training	Receiving or received vocational/technical training	Did not receive vocational/technical training
Eastern and Central Region						
Bihar	0.6	99.4	1.0	99.1	0.9	99.1
Chhattisgarh	8.6	91.4	7.2	92.8	7.7	92.3
Jharkhand	0.7	99.3	1.8	98.2	1.5	98.5
Madhya Pradesh	4.5	95.5	6.9	93.1	6.4	93.6
Odisha	11.8	88.2	7.7	92.3	8.7	91.3
West Bengal	3.2	96.8	4.8	95.2	4.7	95.3
Western Region						
Dadra & Nagar Haveli	0.5	99.5	0.3	99.7	0.4	99.6
Daman & Diu	0.0	100.0	0.1	99.9	0.1	99.9
Goa	0.9	99.1	6.7	93.4	6.3	93.7
Gujarat	2.2	97.9	4.7	95.3	4.3	95.7
Maharashtra	1.6	98.4	4.2	95.8	3.9	96.1
Rajasthan	1.7	98.3	6.7	93.4	6.0	94.0
Northern Region						
Himachal Pradesh	5.9	94.1	10.7	89.3	10.4	89.7
Ladakh	15.5	84.5	23.5	76.5	16.0	84.0
Uttar Pradesh	2.9	97.1	5.7	94.3	5.7	94.3
Uttarakhand	2.5	97.5	2.9	97.1	2.9	97.1
Southern Region						
Andaman & Nicobar Islands	3.3	96.7	9.5	90.5	8.6	91.4
Andhra Pradesh	0.9	99.1	6.0	94.0	5.7	94.3
Karnataka	1.5	98.5	4.1	95.9	3.9	96.1
Kerala	10.6	89.4	11.7	88.3	11.7	88.3
Lakshadweep	1.7	98.4	0.0	100.0	1.6	98.4
Tamil Nadu	3.5	96.5	6.3	93.7	6.2	93.8
Telangana	3.6	96.4	2.5	97.5	2.6	97.4
North-Eastern Region						
Arunachal Pradesh	4.3	95.7	4.6	95.5	4.3	95.7
Assam	3.3	96.8	3.5	96.5	3.4	96.6
Manipur	3.7	96.3	4.3	95.7	4.1	95.9
Meghalaya	0.5	99.5	0.8	99.2	0.5	99.5
Mizoram	2.0	98.0	0.4	99.6	2.0	98.0
Nagaland	4.9	95.1	13.6	86.4	5.2	94.8
Sikkim	3.5	96.5	1.8	98.2	2.4	97.6
Tripura	1.0	99.0	3.0	97.0	2.4	97.7
Total	3.8	96.2	5.1	94.9	5.0	95.0

Source: IHD's own calculation from unit level NSS data

Section 4.6: Type of Institution and Level of Education

Table S.4.12: Social group wise percentage distribution of students (3 to 35 years) by type of institution in which currently attending education in India in 2017-18

Education Level	Type of Institute	ST	Non-ST				All
			SC	OBC	Others	Non-ST (Total)	
Primary & below	Government	81.8	71.6	56.9	43.4	55.6	59.2
	Private Aided	5.4	6.8	8.9	12.6	9.6	9.0
	Private Unaided	12.7	21.6	34.2	44.0	34.8	31.8
Middle	Government	82.7	76.4	65.4	53.5	63.7	66.5
	Private Aided	7.8	7.1	10.4	14.3	11.0	10.4
	Private Unaided	9.5	16.5	24.3	32.2	25.3	23.1
Secondary & Higher secondary	Government	74.4	67.5	56.8	50.3	56.5	58.7
	Private Aided	14.3	13.6	17.5	19.6	17.5	17.0
	Private Unaided	11.3	18.9	25.7	30.2	26.0	24.3
Graduate & above	Government	48.8	47.4	44.5	46.7	45.9	46.0
	Private Aided	28.0	24.6	23.3	25.7	24.5	24.6
	Private Unaided	23.3	28.0	32.2	27.6	29.6	29.5
Total	Government	78.0	69.5	57.4	47.6	56.4	59.2
	Private Aided	9.6	10.1	12.8	16.6	13.5	12.9
	Private Unaided	12.4	20.4	29.9	35.8	30.0	27.9

Source: IHD's own calculation from unit level NSS data

Table S.4.13: Social group wise percentage distribution of students (3 to 35 years) by type of institution in which currently attending education in rural and urban India in 2017-18

Education Level	Type of Institution	Rural						Urban					
		ST	Non-ST			All	ST	Non-ST			All		
			SC	OBC	Others			SC	OBC	Others			
Primary & below	Government	87.3	78.9	67.1	58.5	67.7	70.5	38.1	42.5	27.4	20.9	27.1	27.9
	Private aided	3.5	4.9	5.8	7.9	6.1	5.7	21.1	14.3	17.7	19.6	17.9	18.0
	Private unaided	9.2	16.2	27.1	33.6	26.1	23.8	40.9	43.2	54.9	59.5	55.0	54.2
Middle	Government	87	79.9	74.8	68.9	74.4	76.2	50.3	61.0	37.3	28.2	37.1	38.1
	Private aided	5.9	6.0	7.5	8.4	7.4	7.1	22.3	12.0	19.1	24.1	20.0	20.0
	Private unaided	7.2	14.0	17.7	22.8	18.2	16.7	27.4	27.0	43.6	47.7	42.9	41.9
Secondary & higher secondary	Government	79.2	69.9	64.7	62.9	65.4	67.0	45.8	58.0	37.9	32.4	38.2	38.8
	Private aided	11.5	13.1	15.3	17.0	15.3	14.8	30.9	15.7	22.7	23.3	22.0	22.4
	Private unaided	9.3	17	19.9	20.1	19.3	18.2	23.3	26.3	39.4	44.3	39.8	38.9
Graduate & above	Government	49.2	48.4	49.1	52.6	50.1	49.9	47.6	45.1	38.3	42.2	40.9	41.1
	Private aided	30.2	24.6	20.9	27.5	23.8	24.1	21.7	24.8	26.5	24.3	25.3	25.2
	Private unaided	20.6	27.0	30.0	19.9	26.1	26.0	30.8	30.1	35.2	33.5	33.8	33.7
Total	Government	83.1	74.6	66.7	61.2	67.1	69.2	43.8	50	33.6	29.1	34.0	34.6
	Private aided	7.4	8.6	9.7	12.5	10.2	9.8	23.9	15.6	20.6	22.2	20.6	20.6
	Private unaided	9.4	16.8	23.6	26.3	22.7	21.1	32.3	34.4	45.8	48.7	45.4	44.7

Source: IHD's own calculation from unit level NSS data

Table S.4.14: Social group wise percentage distribution of students (3 to 35 years) by type of institution in which currently attending education in India (men and women) in 2017-18

Education Level	Type of Institution	Women						Men					
		ST	Non-ST				All	ST	Non-ST				All
			SC	OBC	Others	Non-ST			SC	OBC	Others	Non-ST	
Primary & below	Government	83	73.2	58.7	46.2	57.8	61.3	80.8	70.3	55.6	41.2	53.9	57.5
	Private aided	6.1	6.0	8.6	12.3	9.2	8.7	4.9	7.5	9.0	12.9	9.9	9.2
	Private unaided	10.9	20.8	32.7	41.5	32.9	30	14.3	22.3	35.4	45.9	36.2	9.2
Middle	Government	83.4	79.4	66.4	54.5	65.2	67.9	82.2	73.7	64.5	52.7	62.5	65.2
	Private aided	8.3	5.9	10	14.6	10.7	10.1	7.3	8.3	10.7	14.1	11.3	10.7
	Private unaided	8.3	14.7	23.5	31.0	24.1	22.0	10.5	18	24.9	33.2	26.2	10.7
Secondary & higher secondary	Government	78.0	69.3	60.3	54.2	60	62.1	71.8	66.1	54.2	47.4	54.0	56.1
	Private aided	12.4	13.1	16.8	18.1	16.5	16	15.7	14	18.1	20.7	18.2	17.8
	Private unaided	9.6	17.6	22.9	27.7	23.5	21.9	12.6	19.9	27.7	31.9	27.8	17.8
Graduate & above	Government	51.7	44.5	42.5	49.5	45.9	45.8	47	49.3	45.9	44.4	45.8	46.1
	Private aided	24.7	25.1	25.6	23.6	24.6	24.8	29.9	24.3	21.6	27.5	24.4	24.5
	Private unaided	23.6	30.4	31.9	26.9	29.5	29.4	23.1	26.4	32.5	28.2	29.8	24.5
Total	Government	80.1	71.4	59.1	50.3	58.6	61.3	76.3	68	56	45.5	54.7	57.5
	Private aided	9.1	9.2	12.6	15.9	13	12.4	9.9	10.8	12.9	17.2	13.9	13.3
	Private unaided	10.8	19.5	28.3	33.8	28.4	26.3	13.7	21.2	31	37.4	31.3	13.3

Source: IHD's own calculation from unit level NSS data

Section 4.7: Age specific attendance ratio (ASAR)

Table S.4.15: Social group wise age specific attendance ratio for 6 to 29 years old students in India (rural and urban) in 2007-08 (%)

Age Groups	India					Rural					Urban				
	ST	SC	OBC	Others	All	ST	SC	OBC	Others	All	ST	SC	OBC	Others	All
6 to 10 years	86.0	87.1	89.2	93.8	89.6	85.7	86.7	88.6	92.9	88.8	90.1	88.8	91.5	95.5	92.6
11 to 13 years	80.7	82.7	86.6	90.5	86.3	79.9	82.4	85.9	89.8	85.4	89.4	84.1	89.3	91.8	89.5
14 to 17 years	51.7	57.6	63.7	71.6	63.7	49.7	56.0	61.7	68.0	60.8	71.3	63.7	70.4	77.5	72.3
18 to 24 years	11.8	14.0	16.4	26.1	18.5	9.4	11.7	14.1	20.5	14.7	30.0	21.3	23.0	33.4	27.5
25 to 29 years	1.1	1.3	0.9	1.7	1.2	0.6	0.8	0.5	1.0	0.7	5.3	2.9	1.9	2.5	2.4
Total (6 to 29 years)	47.9	48.8	51.8	54.4	51.6	47.2	49.0	52.0	54.1	51.3	54.3	47.9	51.3	54.9	52.4

Source: IHD's own calculation from unit level NSS data

Table S.4.16: Social group wise age specific attendance ratio for 6 to 29 years old students in India (women and men) in 2007-08 (%)

Age Groups	Men					Women				
	ST	SC	OBC	Others	All	ST	SC	OBC	Others	All
6 to 10 years	88.3	88.0	90.3	94.6	90.7	83.5	85.9	87.9	92.9	88.3
11 to 13 years	84.2	85.9	89.2	91.5	88.7	76.6	79.0	83.7	89.2	83.6
14 to 17 years	56.5	60.1	68.7	74.4	67.5	45.6	54.6	58.0	68.4	59.4
18 to 24 years	15.2	17.3	20.0	28.8	21.8	8.4	10.5	12.6	23.1	14.9
25 to 29 years	1.7	1.8	1.2	2.3	1.7	0.5	0.9	0.6	1.1	0.8
Total (6 to 29 years)	52.1	51.8	55.4	57.1	54.9	43.3	45.4	47.9	51.4	48.0

Source: IHD's own calculation from unit level NSS data

Table S.4.17: Social group wise age specific attendance ratio for 3 to 35 years old students in India (rural and urban) in 2017-18 (%)

Age Groups	All					Rural					Urban				
	ST	SC	OBC	Others	All	ST	SC	OBC	Others	All	ST	SC	OBC	Others	All
3 to 5 years	26.2	29.2	32.0	42.4	33.0	23.6	25.6	27.7	36.3	32.1	50.8	47.0	45.3	53.0	48.4
6 to 10 years	91.5	94.0	94.2	97.1	94.5	91.3	93.8	93.6	96.5	93.6	93.7	95.4	96.3	98.0	96.6
11 to 13 years	86.7	92.9	93.9	96.0	93.4	85.7	92.4	93.4	95.2	92.7	94.8	94.6	95.4	97.3	95.8
14 to 17 years	63.6	74.3	78.2	84.0	77.2	61.5	73.4	76.1	79.8	76.2	81.6	78.4	84.3	90.7	85.6
18 to 23 years	19.3	23.7	28.3	35.5	28.3	17.1	21.9	24.7	29.2	24.3	34.0	30.0	36.5	44.2	38.1
24 to 29 years	2.1	1.9	1.9	2.5	2.1	1.9	1.7	1.6	1.5	1.5	3.2	2.4	2.7	3.6	3.0
30 to 35 years	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.5	0.3
Total (3to 35 years)	39.6	42.1	44.5	44.9	43.6	39.0	42.3	44.3	44.5	41.0	44.1	41.2	44.9	45.6	44.6

Source: IHD's own calculation from unit level NSS data

Table S.4.18: Social group wise age specific attendance ratio for 3 to 35 years old students in India (women and men) in 2017-18 (%)

Age Groups	Men					Women				
	ST	SC	OBC	Others	All	ST	SC	OBC	Others	All
3 to 5 years	25.9	29.8	33.9	41.3	33.9	26.6	28.4	30.0	43.9	32.1
6 to 10 years	92.2	94.3	95.0	97.7	95.2	90.6	93.8	93.1	96.3	93.6
11 to 13 years	87.9	93.5	94.9	95.3	93.9	85.2	92.1	92.8	96.9	92.7
14 to 17 years	65.5	73.2	80.0	83.6	78.1	61.3	75.7	76.0	84.5	76.2
18 to 23 years	23.7	27.0	32.2	38.3	31.8	14.5	19.9	23.9	32.3	24.3
24 to 29 years	3.3	2.4	2.5	2.9	2.7	1.0	1.3	1.4	2.1	1.5
30 to 35 years	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.1
Total (3to 35 years)	42.2	43.2	47.4	46.7	45.8	36.6	40.8	41.1	42.9	41.0

Source: IHD's own calculation from unit level NSS data

Section 4.8: Computer and Internet Usage

Table S.4.19: Social group wise percentage of persons in India (5 years and above) with ability to operate computer and internet in 2017-18

Indicators	ST	Non-ST				All
		SC	OBC	Others	Non-ST (total)	
All India						
Ability to operate computer	8.8	10.8	15.0	26.1	17.3	16.5
Ability to operate internet	11.2	13.7	18.4	31.0	21.0	20.1
Used internet in last 30 days	9.5	11.5	15.8	28.0	18.4	17.6
Rural						
Ability to operate computer	6.1	7.8	9.6	14.7	10.4	9.9
Ability to operate internet	8.4	10.2	12.6	19.2	13.6	13.0
Used internet in last 30 days	6.8	8.2	10.4	16.4	11.3	10.8
Urban						
Ability to operate computer	28.2	22.0	28.4	41.1	36.0	32.4
Ability to operate internet	31.8	26.7	32.7	46.3	37.3	37.1
Used internet in last 30 days	28.5	23.9	29.2	43.1	34.0	33.8
Men						
Ability to operate computer	11.0	13.6	18.2	30.9	20.9	20.0
Ability to operate internet	14.6	17.9	23.1	37.0	26.0	25.0
Used internet in last 30 days	12.6	15.5	20.4	34.0	23.3	22.3
Women						
Ability to operate computer	6.4	7.8	11.6	20.9	13.5	12.8
Ability to operate internet	7.5	9.3	13.3	24.5	15.7	14.9
Used internet in last 30 days	6.1	7.3	10.9	21.5	13.2	12.5

Source: IHD's own calculation from unit level NSS data

Table S.4.20: Social group wise percentage of persons in states of India (5 years and above) with ability to operate computer and internet in states of India in 2017-18

States/UTs/All India	Ability to operate computer			Ability to operate internet			Used internet in last 30 days		
	ST	Non-ST	All	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region									
Bihar	7.3	8.1	8.0	8.5	12.2	12.1	8.2	9.8	9.8
Chhattisgarh	6.8	12.7	10.8	8.6	15.0	12.9	7.4	13.8	11.7
Jharkhand	3.4	10.1	8.2	6.4	14.9	12.5	5.3	12.8	10.7
Madhya Pradesh	3.2	11.4	9.6	5.1	15.9	13.5	4.5	14.4	12.3
Odisha	2.9	10.3	8.5	3.5	13.4	11.0	2.0	11.5	9.1
West Bengal	5.3	13.5	13.0	7.5	15.4	14.9	6.2	12.9	12.6
Western Region									
Dadra & Nagar Haveli	7.7	31.7	16.8	15.2	40.3	24.7	15.2	37.7	23.8
Daman & Diu	53.4	32.4	34.5	55.0	47.9	48.7	55.0	46.2	47.1
Goa	41.9	40.3	40.4	49.7	51.6	51.5	48.1	48.9	48.8
Gujarat	11.4	24.5	22.2	10.5	28.2	25.1	9.4	24.8	22.1
Maharashtra	11.4	25.8	24.4	14.6	30.3	28.8	13.2	27.4	26.0
Rajasthan	5.4	15.6	14.2	8.7	18.4	17.1	7.2	16.6	15.3
Northern Region									
Himachal Pradesh	18.9	25.0	24.6	30.2	33.8	33.5	28.3	31.9	31.6
Ladakh	10.9	17.1	11.2	23.4	40.1	24.2	18.5	35.4	19.3
Uttar Pradesh	12.5	9.6	9.7	15.0	13.0	13.0	14.5	11.6	11.6
Uttarakhand	21.2	25.5	25.3	28.2	36.0	35.6	23.9	32.2	31.8
Southern Region									
Andaman & Nicobar Islands	6.5	26.6	23.5	4.8	20.2	17.9	3.3	7.1	6.5
Andhra Pradesh	9.0	14.7	14.4	10.1	17.6	17.1	7.5	15.2	14.8
Karnataka	13.4	19.7	19.3	12.2	22.0	21.4	9.2	18.6	18.0
Kerala	36.4	41.6	41.5	36.5	44.0	43.9	29.3	38.3	38.1
Lakshadweep	43.7	69.1	44.4	50.4	84.5	51.3	45.2	84.5	46.3
Tamil Nadu	13.8	27.7	27.4	15.0	27.3	27.1	11.6	21.7	21.4
Telangana	10.5	20.5	19.8	14.6	25.8	25.0	12.9	22.9	22.2
North-Eastern Region									
Arunachal Pradesh	17.4	15.2	16.9	19.2	16.8	18.7	14.3	15.0	14.5
Assam	7.3	10.6	10.0	15.5	16.9	16.6	12.9	13.8	13.6
Manipur	14.7	13.4	14.0	24.4	26.7	25.8	20.3	22.5	21.6
Meghalaya	21.0	23.1	21.4	18.8	22.8	19.4	11.9	16.6	12.7
Mizoram	26.6	16.3	26.4	35.2	46.4	35.4	30.4	44.4	30.7
Nagaland	28.3	19.4	28.1	37.1	33.0	37.0	30.0	26.9	29.9
Sikkim	36.7	33.6	34.7	50.8	49.7	50.1	48.2	46.8	47.3
Tripura	3.0	7.5	6.0	3.8	9.0	7.3	2.7	7.6	5.9
Total	8.7	17.4	16.6	11.1	21.0	20.1	9.4	18.4	17.5

Source: IHD's own calculation from unit level NSS data

Section 5: HEALTH AND NUTRITION STATUS

Section 5.1: Child Health and Nutrition

Table S.5.1: Prevalence of child mortality by social category, 2005-06, 2015-16 and 2019-21

Year	Indicators	ST	Non-ST				All
			SC	OBC	Others	Total	
2005-06	NMR	39.9	46.3	38.3	34.5	38.9	39.0
	IMR	62.1	66.4	56.6	48.9	56.4	57.0
	U5MR	95.7	88.1	72.8	59.2	72.0	74.0
2015-16	NMR	31.0	33.0	30.5	23.2	29.2	30.0
	IMR	44.4	45.2	42.0	32.1	40.3	41.0
	U5MR	57.2	55.9	50.8	38.5	48.8	50.0
2019-21	NMR	28.8	29.2	24.3	19.5	24.7	24.9
	IMR	41.6	40.7	34.1	28.0	34.8	35.2
	U5MR	50.3	48.9	40.5	32.8	41.3	41.9

Source: NFHS 3, NFHS 4 and NFHS 5

Table S.5.2: Prevalence of low birth weight by social category and place of residence, 2005-06 to 2019-21

Year	Indicators	ST	Non-ST				All
			SC	OBC	Others	Total	
2005-06	Rural	24.5	23.7	23.8	22.4	23.2	23.3
	Urban	14.1	23.5	18.1	19.4	19.5	19.3
	Total	22.3	23.7	21.3	20.7	21.5	21.5
2015-16	Rural	20.5	19.2	17.9	16.5	17.5	18.5
	Urban	20.5	18.8	17.2	16.5	17.5	17.6
	Total	20.5	19.1	17.7	17.2	17.9	18.2
2019-21	Rural	19.3	19.8	18.0	18.0	18.5	18.6
	Urban	14.7	18.7	17.3	16.3	17.4	17.4
	Total	18.8	19.5	17.8	17.3	18.2	18.2

Source: NFHS 3, NFHS 4 and NFHS 5

Table S.5.3: Prevalence of low birth weight by social category and gender of the child, 2005-06 to 2019-21

Year	Indicators	ST	Non-ST				All
			SC	OBC	Others	Total	
2005-06	Male	21.9	23.8	20.5	18.3	20.2	20.3
	Female	22.7	23.4	22.3	23.6	23.0	23.0
	Total	22.2	23.7	21.3	20.7	21.5	21.5
2015-16	Male	19.4	17.1	16.1	15.4	16.9	17.1
	Female	21.7	19.9	18.4	17.8	19.1	19.4
	Total	20.5	19.1	17.7	17.0	17.9	18.2
2019-21	Male	17.6	18.4	16.6	16.0	16.9	17.0
	Female	20.0	20.8	19.1	18.8	19.5	19.6
	Total	18.8	19.5	17.8	17.3	18.2	18.2

Source: NFHS 3, NFHS 4 and NFHS 5

Table S.5.4: Prevalence of malnutrition among children aged 0 to 5 years by social category and place of residence 2019-21

Malnutrition	Place of Residence	ST	Non-ST				All
			SC	OBC	Others	Total	
Stunting	Rural	41.3	40.9	37.1	30.1	36.9	37.3
	Urban	31.6	34.2	29.3	27.5	30.1	30.1
	Total	40.9	39.4	35.0	29.1	35.0	35.5
Underweight	Rural	40.4	36.5	33.1	26.2	33.0	33.8
	Urban	31.1	30.0	27.0	24.4	27.0	27.3
	Total	39.5	35.1	31.2	27.0	31.3	32.1
Wasting	Rural	23.2	19.9	19.2	16.4	19.0	19.5
	Urban	22.2	18.4	18.6	17.5	18.2	18.5
	Total	23.2	19.7	18.9	17.5	18.8	19.3
Anaemia	Rural	75.1	71.0	67.3	66.6	68.2	68.3
	Urban	64.8	68.5	63.1	64.6	64.8	64.2
	Total	72.4	69.5	65.2	65.8	67.3	67.1

Source: NFHS 5

Table S.5.5: Prevalence of malnutrition among children aged 0 to 5 years by social category and gender of children 2019-21

Malnutrition	Sex	ST	Non-ST				All
			SC	OBC	Others	Total	
Stunting	Male	42.0	39.9	35.6	30.1	35.7	36.2
	Female	38.4	38.8	34.4	28.0	34.3	34.6
	Total	40.9	39.2	34.8	30.1	35.0	35.5
Underweight	Male	41.4	35.8	32.2	26.5	32.1	32.9
	Female	37.4	34.2	30.7	24.5	30.5	31.2
	Total	39.5	35.1	31.2	27.0	31.2	32.1
Wasting	Male	23.9	20.5	19.8	17.1	19.5	20.0
	Female	22.2	18.5	18.2	16.5	18.0	18.5
	Total	23.2	19.7	18.9	17.5	18.7	19.3
Anaemia	Male	73.6	70.5	66.3	66.0	67.4	67.2
	Female	74.3	70.3	66.1	65.7	67.3	67.0
	Total	72.4	69.5	65.2	65.8	67.3	67.1

Source: NFHS 5

Section 5.2: Maternal Health**Table S.5.6: Percentage of women aged 15-49 with anaemia by place of residence, India, 2005-06 to 2019-21**

Year	Place of Residence	ST	Non-ST				All
			SC	OBC	Others	Total	
2005-06	Rural	69.9	58.9	56.0	53.3	55.8	57.4
	Urban	58.4	56.2	51.1	48.2	50.8	51.0
	Total	68.6	58.1	54.5	51.1	54.1	55.3
2015-16	Rural	61.3	56.2	53.0	50.9	53.4	54.4
	Urban	52.4	55.0	50.8	48.3	50.8	50.9
	Total	59.9	55.9	52.2	49.7	52.5	53.2
2019-21	Rural	66.2	59.9	55.7	56.6	57.1	58.5
	Urban	54.8	57.5	52.1	53.2	53.6	53.8
	Total	64.6	59.2	54.6	56.4	56.0	57.0

Source: NFHS 3, NFHS 4 and NFHS 5

Table S.5.7: Percentage of women aged 15-49 BMI in the thin category (<18.5) by place of residence, India, 2005-06 to 2019-21

Year	Place of Residence	ST	Non-ST				Total
			SC	OBC	Other	Total	
2005-06	Rural	48.5	44.8	39.8	35.9	39.8	40.6
	Urban	33.9	31.5	26.7	20.5	24.9	25.0
	Total	46.6	41.1	35.7	29.4	34.6	35.6
2015-16	Rural	33.5	27.9	26.6	21.9	26.0	27.0
	Urban	21.9	18.6	15.7	12.7	15.3	15.5
	Total	31.7	25.3	22.9	17.8	22.1	22.9
2019-21	Rural	26.9	22.3	21.2	16.9	20.6	21.3
	Urban	17.0	14.8	13.6	11.4	13.2	13.3
	Total	25.5	20.2	18.8	14.5	18.1	18.7

Source: NFHS 3, NFHS 4 and NFHS 5

Section 5.3: Childhood Diseases

Table S.5.8: Prevalence of Diarrhoea, Fever and ARI among 0-5 years children by area and gender, 2019-21

Disease	Place of Residence	ST	Non-ST				All
			SC	OBC	Others	Total	
Had diarrhoea recently	Rural	7.8	7.7	7.6	8.2	7.8	7.7
	Urban	6.4	7.1	5.8	6.2	6.2	6.2
	Total	7.6	7.6	7.1	7.2	7.3	7.3
Had fever in last two weeks	Rural	11.6	13.6	13.3	15.3	13.8	13.7
	Urban	12.4	12.7	11.0	12.4	11.8	11.9
	Total	11.7	13.4	12.7	14.5	13.2	13.2
ARI prevalence	Rural	2.5	3.1	2.9	3.1	3.0	3.0
	Urban	1.9	2.6	2.3	2.1	2.3	2.3
	Total	2.4	3.0	2.8	2.7	2.8	2.8
Had diarrhoea recently	Male	8.2	7.8	7.4	7.6	7.5	7.6
	Female	7.1	7.3	6.8	7.3	7.1	7.0
	Total	7.6	7.6	7.1	7.2		7.3
Had fever in last two weeks	Male	12.1	14.0	13.1	15.0	13.7	13.7
	Female	11.3	12.8	12.3	13.3	12.7	12.6
	Total	11.7	13.4	12.7	14.5		13.2
ARI prevalence	Male	2.6	3.2	3.0	3.1	3.1	3.0
	Female	2.2	2.8	2.5	2.4	2.6	2.5
	Total	2.4	3.0	2.8	2.7	2.8	2.8

Source: NFHS 5

Section 5.4: Health Seeking Behaviour

Table S.5.9: Health seeking among 0-5 years children by area and gender, 2019-21

Disease	Place of Residence	ST	Non-ST				All
			SC	OBC	Others	Total	
Diarrhoea	Rural	74.6	73.4	76.8	76.7	76.1	75.6
	Urban	79.9	78.0	76.9	77.4	77.8	78.0
	Total	73.8	75.8	76.8	77.0	76.5	76.2
Fever	Rural	75.1	78.7	80.1	81.6	80.0	79.1
	Urban	74.1	80.2	82.2	82.2	81.7	81.3
	Total	74.7	78.9	80.4	81.0	80.4	79.6
ARI	Rural	49.2	60.1	55.2	51.5	55.5	55.2
	Urban	50.0	56.5	55.4	63.1	57.2	56.3
	Total	49.9	57.2	55.4	59.5	56.8	56.1
Diarrhoea	Male	75.0	76.3	76.4	78.5	76.9	76.7
	Female	72.5	75.1	77.2	75.1	76.2	75.6
	Total	73.8	75.8	76.8	77.0	80.4	76.2
Fever	Male	74.2	79.6	81.4	82.3	81.1	80.2
	Female	75.7	78.4	79.7	81.2	79.7	78.9
	Total	74.7	78.9	80.4	81.0	80.4	79.6
ARI	Male	49.8	56.4	57.8	60.7	58.0	57.2
	Female	50.1	58.3	52.2	57.9	55.2	54.7
	Total	49.9	57.2	55.4	59.5	56.8	56.1

Source: NFHS 5

Table S.5.10: Status of full immunization by social groups and gender of the children, 2005-06 to 2019-21

Year	Sex	ST	Non-ST				All
			SC	OBC	Others	Total	
2005-06	Male	31.2	42.7	42.5	54.9	46.5	45.1
	Female	31.3	36.4	38.4	52.5	42.4	41.3
	Total	31.3	40.7	40.7	53.8	44.6	43.4
2015-16	Male	55.5	63.1	62.5	62.7	62.6	61.8
	Female	56.2	63.3	61.2	64.7	62.3	61.6
	Total	55.8	63.2	61.9	64.5	62.4	61.7
2019-21	Male	76.5	78.3	77.5	76.0	77.4	77.3
	Female	76.8	75.5	77.0	75.8	76.3	76.4
	Total	76.7	77.0	77.3	75.9	76.9	76.9

Source: NFHS 3, NFHS 4 and NFHS 5

Table S.5.11: Status of full immunization by social groups and place of residence 2005-06 to 2019-21

Year	Place of residence	ST	Non-ST				All
			SC	OBC	Others	Total	
2005-06	Rural	29.5	36.2	36.5	47.7	39.5	38.3
	Urban	48.2	51.7	54.0	63.9	57.9	57.6
	Total	31.3	40.7	40.7	53.8	44.6	43.4
2015-16	Rural	54.6	63.4	61.3	63.0	62.1	61.1
	Urban	64.4	62.4	63.3	64.6	63.2	63.3
	Total	55.8	63.2	61.9	64.5	62.4	61.7
2019-21	Rural	76.8	77.4	76.8	77.2	77.1	77.0
	Urban	74.7	74.8	78.2	73.5	76.0	75.5
	Total	76.8	76.7	77.1	75.8	76.8	76.6

Source: NFHS 3, NFHS 4 and NFHS 5

Section 5.5: Reproductive Health Care Services

Table S.5.12: Percent distribution of women aged 15-49 who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth according to residence, India, 2019-21

		ST	SC	OBC	Other	Non-ST	Total
Rural	None	7.6	7.3	6.8	5.6	11.8	6.8
	1-3 visit	34.6	39.9	39.3	33.2	36.2	38.3
	4 and more visit	56.5	51.8	53.1	59.5	49.6	53.9
	Don't Know	1.3	1.0	0.8	1.7	2.4	1.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Urban	None	4.7	5.0	4.0	3.6	6.5	4.2
	1-3 visit	27.7	27.4	27.3	22.7	16.2	25.8
	4 and more visit	66.1	66.2	67.4	71.8	72.8	68.5
	Don't Know	1.5	1.3	1.2	1.9	4.5	1.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Total	None	7.3	6.7	6.1	4.8	9.9	6.0
	1-3 visit	33.7	36.9	35.9	28.9	29.0	34.6
	4 and more visit	57.6	55.3	57.2	64.5	57.9	58.3
	Don't Know	1.3	1.1	0.9	1.8	3.2	1.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: NFHS 5

Table S.5.13: Percent distribution of live births to women aged 15-49 in the five years preceding the survey by place of delivery, and percentage delivered in a health facility, India, 2019-21

		ST	SC	OBC	Other	Non-ST	Total
Urban	Home	7.5	7.7	5.8	5.1	6.1	6.1
	Public Sector	59.7	63.3	50.0	45.6	51.9	52.2
	Private Sector	31.3	28.5	43.3	48.1	41.1	40.7
	NGO or Trust Hospital/Clinic	1.1	0.4	0.8	0.9	0.7	0.8
	Health Facility	92.2	92.2	94.1	94.7	93.8	93.7
	Other	0.4	0.1	0.2	0.2	0.2	0.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Rural	Home	18.8	14.0	11.9	10.0	12.3	13.1
	Public Sector	71.0	69.5	63.3	58.0	64.2	65.1
	Private Sector	9.7	16.0	24.2	31.2	23.0	21.3
	NGO or Trust Hospital/Clinic	0.3	0.2	0.3	0.6	0.3	0.3
	Health Facility	81.0	85.8	87.9	89.8	87.6	86.7
	Other	0.2	0.2	0.2	0.3	0.2	0.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0
Total	Home	17.4	12.5	10.3	8.5	10.5	11.2
	Public Sector	69.7	68.1	59.8	55.9	60.7	61.9
	Private Sector	12.1	18.9	29.3	34.6	28.2	26.2
	NGO or Trust Hospital/Clinic	0.4	0.3	0.4	0.6	0.4	0.4
	Health Facility	82.3	87.3	89.5	91.2	89.5	88.6
	Other	0.3	0.2	0.2	0.3	0.2	0.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: NFHS 5

Table S.5.14: Among women aged 15-49 giving birth in the five years preceding the survey, percent post-natal check-ups and percentage check-ups by medical personnel, India, 2019-21

		ST	SC	OBC	Other	Non-ST	Total
Urban	Baby postnatal check within 2 months	38.9	44.7	46.2	41.6	44.5	44.2
	Postnatal check-up by Medical Personnel*	97.5	96.4	96.8	97.0	96.8	96.8
Rural	Baby postnatal check within 2 months	48.8	46.8	46.2	46.6	46.4	46.6
	Postnatal check-up by Medical Personnel*	95.5	95.1	96.0	96.8	95.9	95.8
Total	Baby postnatal check within 2 months	47.6	46.3	46.2	44.5	45.8	45.9
	Postnatal check-up by Medical Personnel*	95.5	95.1	96.0	96.8	95.9	95.8

*Includes doctor, ANM/ nurse/ midwife/ LHV, Other health personnel and ASHA

Source: NFHS 5

Table S.5.15: Neonatal mortality rate by Schedule Tribe and Others, 2015-16, 2019-21

States/UTs/All India	2015-16			2019-21		
	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region						
Bihar	40.6	36.6	36.7	45.1	34.0	34.5
Chhattisgarh	48.3	39.1	42.1	41.2	28.5	32.4
Jharkhand	32.8	33.6	33.1	31.3	27.1	28.2
Madhya Pradesh	43.1	35.2	37.0	28.8	26.6	29.0
Odisha	35.5	26.6	28.4	41.6	20.3	27.0
West Bengal	44.1	20.4	22.0	23.7	16.0	15.5
Western Region						
Dadra & Nagar Haveli Daman & Diu	NA	NA	NA	NA	NA	21.4
Goa	NA	NA	NA	NA	NA	5.6
Gujarat	18.0	28.3	26.8	18.7	21.4	21.8
Maharashtra	21.6	15.6	16.5	24.5	14.7	16.5
Rajasthan	26.3	30.6	29.8	28.2	18.9	20.2
Northern Region						
Himachal Pradesh	20.7	25.6	25.5	14.5	21.0	20.5
Jammu & Kashmir	23.2	23.1	23.2	18.1	10.3	9.8
Ladakh	NA	NA	NA	NA	NA	11.4
Uttar Pradesh	29.0	45.5	45.2			35.7
Uttarakhand	NA	28.4	28.1			32.4
Southern Region						
Andaman & Nicobar Islands	NA	NA	NA	NA	NA	12.3
Andhra Pradesh	NA	24.3	23.6	55.2	17.7	19.9
Karnataka	24.3	18.2	19.2	14.1	16.6	15.8
Kerala	NA	4.8	4.4			3.4
Lakshadweep	NA	NA	NA	NA	NA	
Tamil Nadu	NA	13.9	14.2			12.7
Telangana	NA	14.8	21.9	26.3	15.9	16.8
North-Eastern Region						
Arunachal Pradesh	9.8	17.7	11.8	7.2	11.6	7.7
Assam	23.4	33.9	32.9	16.2	22.6	22.5
Manipur	19.2	13.9	15.6	16.3	19.5	17.2
Meghalaya	NA	NA	NA	20.3	5.1	19.8
Mizoram	NA	NA	NA	11.8	NA	11.4
Nagaland	NA	NA	NA	10.2	NA	10.2
Sikkim	32.8	14.3	20.8	1.5	7.1	5.0
Tripura	14.1	12.1	13.2	26.0	21.5	22.9
All India	31.3	29.2	30.1	28.7	24.7	24.9

Note: NA: Estimates are not available due to smaller sample size

Source: NFHS 4 and NFHS 5

Table S.5.16: Infant mortality rate by ST and Others, 2015-16, 2019-21

States/UTs/All India	2015-16			2019-21		
	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region						
Bihar	47.1	48.3	48.2	56.9	46.2	46.8
Chhattisgarh	65.8	48.1	54.0	58.0	38.2	44.2
Jharkhand	46.8	42.5	43.9	44.4	35.7	37.9
Madhya Pradesh	58.9	49.2	51.4	41.3	40.8	41.3
Odisha	51.8	35.6	40.1	55.9	27.6	36.3
West Bengal	46.1	26.3	27.5	26.7	22.2	22.0
Western Region						
Dadra & Nagar Haveli and Daman and Diu	NA	NA	NA	NA	NA	31.8
Goa	NA	NA	NA	NA	NA	5.6
Gujarat	29.3	34.9	34.2	31.9	30.4	31.2
Maharashtra	32.8	22.5	23.9	31.1	20.3	23.2
Rajasthan	39.5	41.5	41.3	43.2	28.1	30.2
Northern Region						
Himachal Pradesh	49.6	33.6	34.3	20.7	26.1	25.6
Jammu & Kashmir	37.5	31.5	32.4	30.1	16.3	16.3
Ladakh	NA	NA	NA	NA	NA	20.0
Uttar Pradesh	40.8	64.0	63.6			50.4
Uttarakhand	NA	40.2	40.0			39.1
Southern Region						
Andaman & Nicobar Islands	NA	NA	NA	NA	NA	20.6
Andhra Pradesh	NA	38.2	34.9	74.2	26.8	30.2
Karnataka	37.7	26.7	27.7	26.6	25.7	25.4
Kerala	NA	6.0	5.6			4.4
Lakshadweep	NA	NA	NA	NA	NA	NA
Tamil Nadu	NA	20.1	20.3			18.6
Telangana	NA	18.1	29.8	39.6	24.7	26.4
North-Eastern Region						
Arunachal Pradesh	21.0	32.9	22.8	13.3	13.3	12.9
Assam	41.6	48.0	47.7	33.9	31.2	31.9
Manipur	27.8	18.4	21.7	23.3	27.7	25.0
Meghalaya	NA	NA	NA	32.5	22.4	32.3
Mizoram	NA	NA	NA	21.6	12.5	21.3
Nagaland	NA	NA	NA	24.1		23.4
Sikkim	44.1	20.9	29.5	15.0	9.7	11.2
Tripura	27.5	25.9	26.7	50.8	30.9	37.6
All India	44.4	40.3	41.0	41.6	34.8	35.2

Note: NA: Estimates are not available due to smaller sample size

Source: NFHS 4 and NFHS 5

Table S.5.17: Under five mortality rates by ST and Other, 2015-16 and 2019-21

States/UTs/All India	2015-16			19-21		
	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region						
Bihar	52.5	58.3	58.1	68.4	55.9	56.4
Chhattisgarh	80.0	56.4	64.2	67.0	43.0	50.4
Jharkhand	64.0	50.6	54.4	55.8	42.0	45.4
Madhya Pradesh	78.5	60.7	64.9	54.6	47.3	49.2
Odisha	65.6	41.9	48.6	66.2	29.9	41.1
West Bengal	51.9	30.5	31.8	26.7	24.6	25.3
Western Region						
Dadra & Nagar Haveli Daman & Diu	NA	NA	NA	NA	NA	37.0
Goa	NA	NA	NA	NA	NA	10.6
Gujarat	43.9	43.0	43.5	41.6	35.8	37.6
Maharashtra	41.4	27.0	29.1	37.3	24.9	28.0
Rajasthan	57.8	49.1	50.7	51.6	35.2	37.5
Northern Region						
Himachal Pradesh	56.9	36.8	37.6	26.7	29.3	28.9
Jammu & Kashmir	49.3	35.7	37.6	33.2	17.9	18.5
Ladakh	NA	NA	NA	NA	NA	29.5
Uttar Pradesh	60.7	78.4	78.1			59.8
Uttarakhand	NA	46.9	46.7			45.5
Southern Region						
Andaman & Nicobar Islands	NA	NA	NA	NA	NA	24.5
Andhra Pradesh	NA	NA	40.8	65.2	31.7	35.2
Karnataka	42.3	31.3	32.2	35.6	29.7	29.5
Kerala	NA	7.4	7.1			5.2
Lakshadweep	NA	NA	NA	NA	NA	NA
Tamil Nadu	NA	NA	26.9			22.3
Telangana	NA	NA	33.6	41.6	27.9	29.4
North-Eastern Region						
Arunachal Pradesh	31.1	40.6	32.8	20.7	15.4	18.8
Assam	51.0	56.4	56.6	41.3	38.0	39.1
Manipur	33.5	21.5	25.9	26.2	34.3	30.0
Meghalaya	NA	NA	NA	40.1	29.3	40.0
Mizoram	NA	NA	NA	24.2	22.0	24.0
Nagaland	NA	NA	NA	34.4	NA	33.0
Sikkim	50.5	28.1	32.2	15.0	9.7	11.2
Tripura	30.8	32.4	32.6	19.3	35.2	43.3
All India	57.2	48.8	50.0	50.3	41.3	41.9

Note: NA: Estimates are not available due to smaller sample size

Source: NFHS 4 and NFHS 5

Table S.5.18: Percentage of stunted children among 0 to 5 years by ST and non-ST, 2015-16, 2019-21

States/UTs/All India	2015-16			2019-21		
	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region						
Bihar	49.6	48.4	48.3	41.8	43.0	42.9
Chhattisgarh	41.7	35.7	37.6	38.3	33.3	34.6
Jharkhand	49.8	44.1	45.3	44.8	37.8	39.6
Madhya Pradesh	47.9	40.2	42.0	40.0	34.4	35.7
Odisha	46	29.9	34.1	42.1	26.3	31.0
West Bengal	37.9	31.6	32.5	37.1	33.6	33.8
Western Region						
Dadra & Nagar Haveli	43.4	39.9	41.7	53.0	30.1	39.4
Daman & Diu*	19.7	23.7	23.4			
Goa	24.9	20.7	20.1	33.6	25.3	25.8
Gujarat	47.9	36.3	35.5	45.8	37.5	39.0
Maharashtra	44.4	32.5	34.4	41.5	34.5	35.2
Rajasthan	49.1	37.2	39.1	36.3	31.1	31.8
Northern Region						
Himachal Pradesh	22.5	26.7	26.3	33.1	30.7	30.8
Jammu & Kashmir	32.8	29.9	27.4	26.8	27.9	26.9
Ladakh	29.9	34.9	29.9	36.2	21.2	30.5
Uttar Pradesh	52.2	46.2	46.2	49.6	39.4	39.7
Uttarakhand	33.3	33.8	33.5	24.3	27.1	27.0
Southern Region						
Andaman & Nicobar Islands	21.7	24.4	23.3	25.8	17.8	22.5
Andhra Pradesh	30.9	31.5	31.4	40.9	30.5	31.2
Karnataka	39.9	36.6	36.2	39.5	35.3	35.4
Kerala	28.0	19.5	19.7	33.2	23.1	23.4
Lakshadweep	26.2	49.6	26.8	35.2	21.0	32.0
Tamil Nadu	32.1	27.1	27.1	31.0	25.0	25.0
Telangana	32.7	27.4	28.0	33.2	33.0	33.1
North-Eastern Region						
Arunachal Pradesh	30.3	26.1	29.3	27.9	28.2	28.0
Assam	28.5	35.4	36.4	30.4	34.1	35.3
Manipur	34.1	25.4	28.9	26.9	21.4	23.4
Meghalaya	44.6	28	43.8	46.4	39.0	46.5
Mizoram	27.1	50.2	28.1	28.3	38.4	28.9
Nagaland	28.6	28	28.6	32.8	31.7	32.7
Sikkim	29.4	28.6	29.6	21.4	22.1	22.3
Tripura	24.0	23.2	24.3	34.2	30.5	32.3
All India	43.9	37.9	38.4	40.9	34.9	35.5

Note: In NFHS 5 the union territory Daman and Diu the figure given jointly with Dadra & Nagar Haveli, NA: Not Available

Source: NFHS 4 and NFHS 5

Table S.5.19: Percentage of underweight children among 0 to 5 years by ST and non-ST, 2015-16, 2019-21

States/UTs/All India	2015-16			2019-21		
	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region						
Bihar	45.2	43.9	43.9	45.4	40.9	41.0
Chhattisgarh	43.6	34.9	37.7	36.1	29.2	31.3
Jharkhand	55.2	45.3	47.8	46.2	36.9	39.4
Madhya Pradesh	51.2	40.5	42.8	39.9	30.9	33.0
Odisha	48.6	29.1	34.4	42.0	24.6	29.7
West Bengal	43.0	30.9	31.5	44.1	32.8	32.2
Western Region						
Dadra & Nagar Haveli	46.3	27.6	38.8	52.9	28.5	38.7
Daman & Diu	48.3	25.3	26.7			
Goa	26.9	24.2	23.8	17.4	25.7	24.0
Gujarat	51.5	36.8	39.3	48.8	37.3	39.7
Maharashtra	49.9	33.6	36.0	47.0	33.7	36.1
Rajasthan	51.7	33.7	36.7	31.8	26.9	27.6
Northern Region						
Himachal Pradesh	19.4	21.7	21.2	22.0	25.8	25.5
Jammu & Kashmir	25.9	18.0	16.6	25.8	21.3	21.0
Ladakh	17.1	20.7	17.7	23.7	10.8	20.4
Uttar Pradesh	47.5	39.4	39.5	45.3	31.8	32.1
Uttarakhand	28.9	26.9	26.6	12.7	21.4	21.0
Southern Region						
Andaman & Nicobar Islands	10.8	22.4	21.5	18.0	20.7	23.6
Andhra Pradesh	46.1	31.3	31.9	45.7	28.6	29.6
Karnataka	38.1	35.3	35.2	35.9	32.8	32.9
Kerala	23.4	16.4	16.1	17.3	19.7	19.7
Lakshadweep	23.2	49.6	23.6	24.7	28.6	25.8
Tamil Nadu	34.6	23.7	23.8	31.5	21.8	22.0
Telangana	31.7	27.7	28.3	31.3	31.6	31.8
North-Eastern Region						
Arunachal Pradesh	17.8	21.9	19.4	13.6	22.4	15.4
Assam	18.5	29.5	29.8	26.0	31.8	32.8
Manipur	12.2	14.6	13.8	12.7	13.5	13.3
Meghalaya	28.5	13.5	28.9	25.9	30.3	26.6
Mizoram	11.6	20.9	12.0	12.4	12.8	12.7
Nagaland	16.2	22.2	16.7	26.1	33.8	26.6
Sikkim	13.4	14.3	14.2	15.5	11.2	13.1
Tripura	20.8	24.1	24.1	30.5	22.7	25.6
All India	45.0	34.9	36.0	39.5	31.3	32.1

Source: NFHS 4 and NFHS 5

NA: Not Available

Table S.5.20: Percentage of wasted children among 0 to 5 years by ST and non-ST, 2015-16, 2019-21

States/UTs/All India	2015-16			2019-21		
	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region						
Bihar	22.7	20.8	20.8	26.4	22.7	22.9
Chhattisgarh	26	21.7	23.1	20.6	18.4	18.9
Jharkhand	34.3	27.1	29.0	25.3	21.3	22.4
Madhya Pradesh	30.3	24.5	25.8	21.4	18.2	18.9
Odisha	27.5	17.8	20.4	22.6	16.2	18.1
West Bengal	27.9	20.3	20.3	25.1	21.3	20.3
Western Region						
Dadra & Nagar Haveli	28.9	25.8	27.6	23.5	20.3	21.6
Daman & Diu	43.3	23.6	24.1	-	-	-
Goa	24.1	18.7	21.9	18.9	23.5	19.1
Gujarat	32.2	25.3	26.4	29.5	24.1	25.1
Maharashtra	32.4	24.4	25.6	32.4	24.2	25.6
Rajasthan	31.3	21.4	23.0	18.5	16.9	16.8
Northern Region						
Himachal Pradesh	16.2	13.8	13.7	16.3	17.5	17.4
Jammu & Kashmir	17.9	11.8	12.1	21.0	19.2	19.0
Ladakh	8.8	10.3	9.3	18.0	25.0	17.5
Uttar Pradesh	22.5	17.9	17.9	23.9	17.1	17.3
Uttarakhand	20.9	19.5	19.5	6.3	13.2	13.2
Southern Region						
Andaman & Nicobar Islands	6.0	20.6	18.9	15.1	15.9	16.0
Andhra Pradesh	24.9	16.8	17.2	20.5	15.8	16.1
Karnataka	21.8	26.2	26.1	21.5	19.5	19.5
Kerala	20.4	15.8	15.7	6.5	15.8	15.8
Lakshadweep	14.3	NA	13.7	17.3	19.0	17.4
Tamil Nadu	28.1	19.5	19.7	20.9	14.5	14.6
Telangana	18	17.9	18.0	24.5	21.6	21.7
North-Eastern Region						
Arunachal Pradesh	15.8	21.1	17.3	13.3	12.7	13.1
Assam	10.2	17.9	17.0	19.4	21.0	21.7
Manipur	7.2	6.5	6.8	10.1	9.6	9.9
Meghalaya	14.7	3.1	15.3	11.8	13.0	12.1
Mizoram	5.8	10.3	6.1	9.5	15.7	9.8
Nagaland	11.1	13.2	11.3	17.8	41.8	19.1
Sikkim	13.1	15.3	14.2	9.7	16.9	13.6
Tripura	18.9	14.6	16.8	19.8	16.5	18.2
All India	27.0	20.4	21.4	23.2	18.8	19.3

NA: Not Available

Source: NFHS 4 and NFHS 5

Table S.5.21: Percentage of anaemic children among 6-59 Months by ST and non-ST

States/UTs/All India	2015-16			2019-21		
	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region						
Bihar	71.6	63.2	63.5	70.4	70.4	69.4
Chhattisgarh	48.0	38.7	41.6	71.5	66.8	67.2
Jharkhand	78.7	67.1	69.9	75.3	67.0	67.4
Madhya Pradesh	75.8	66.9	68.9	78.6	71.8	72.6
Odisha	58.7	39.4	44.6	73.3	61.8	64.2
West Bengal	68.0	53.5	54.2	78.3	68.1	69.0
Western Region						
Dadra & Nagar Haveli	89.3	75.5	84.6	84.0	72.3	75.8
Daman & Diu	92.4	72.5	73.8	-	-	-
Goa	44.2	46.9	48.3	56.7	53.8	53.2
Gujarat	57.2	63.7	62.6	87.0	79.0	79.7
Maharashtra	60.5	53.0	53.8	77.8	68.6	68.9
Rajasthan	74.8	57.7	60.3	75.8	70.8	71.5
Northern Region						
Himachal Pradesh	65.2	53.2	53.7	60.2	54.8	55.4
Jammu & Kashmir	65.4	50.0	54.5	76.0	71.8	72.7
Ladakh	91.3	NA	91.4	91.4	99.3	93.9
Uttar Pradesh	67.3	63.3	63.2	65.7	67.0	66.4
Uttarakhand	66.3	60.1	59.8	52.6	59.3	58.8
Southern Region						
Andaman & Nicobar Islands	48.8	52.8	49.0	26.9	43.0	40.0
Andhra Pradesh	74.7	57.5	58.6	81.1	63.3	63.2
Karnataka	66.5	61.3	60.9	70.3	66.3	65.5
Kerala	48.4	34.2	35.7	56.9	39.5	39.4
Lakshadweep	53.1	25.2	53.6	41.9	56.6	43.1
Tamil Nadu	40.6	51.0	50.7	74.6	57.3	57.4
Telangana	66.8	60.1	60.7	78.0	69.5	70.0
North-Eastern Region						
Arunachal Pradesh	51.6	60.1	54.4	53.7	63.8	56.6
Assam	38.1	35.6	35.9	76.7	70.5	68.4
Manipur	22.6	24.7	24.0	39.7	44.1	42.8
Meghalaya	47.8	47.9	48.1	44.6	38.2	45.1
Mizoram	19.3	31.3	19.6	47.8	60.2	46.4
Nagaland	27.3	17.9	26.6	42.3	42.2	42.7
Sikkim	58.0	53.5	55.5	50.6	57.1	56.4
Tripura	54.8	44.9	48.2	74.2	59.5	64.2
All India	63.8	58.3	58.9	72.4	67.4	67.1

NA: Not Available

Source: NFHS 4 and NFHS 5

Table S.5.22: Percentage of children born with low birth weight by ST and non-ST

States/UTs/All India	2015-16			2019-21		
	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region						
Bihar	16.8	14.3	14.4	14.4	16.8	16.8
Chhattisgarh	14.7	11.8	12.6	18.4	14.7	15.9
Jharkhand	15.3	14.3	14.5	17.3	15.0	15.6
Madhya Pradesh	23.7	21.5	21.9	19.1	20.9	20.5
Odisha	24.2	19.6	20.8	21.9	18.1	19.2
West Bengal	21.0	15.9	16.7	14.7	19.8	19.0
Western Region						
Dadra & Nagar Haveli*	26.4	18.7	23.1	25.8	17.2	20.8
Daman & Diu	24.6	17.4	17.8	-	-	-
Goa	39.7	20.4	22.3	22.4	13.8	14.0
Gujarat	22.9	18.3	19.0	21.2	18.0	18.5
Maharashtra	24.6	18.6	19.5	24.3	19.4	20.0
Rajasthan	24.7	20.8	21.4	21.9	17.0	17.7
Northern Region						
Himachal Pradesh	14.3	19.7	19.6	12.7	16.1	15.8
Jammu & Kashmir	18.7	12.6	14.0	12.7	10.6	10.7
Ladakh	8.9	27.6	9.2	9.8	21.1	11.6
Uttar Pradesh	18.9	20.7	20.7	25.0	20.0	20.2
Uttarakhand	27.1	24.5	24.7	20.8	17.5	17.7
Southern Region						
Andaman & Nicobar Islands	18.4	17.1	16.2	14.7	17.0	17.4
Andhra Pradesh	20.1	17.4	17.6	17.4	16.1	16.2
Karnataka	16.7	16.9	17.2	15.2	16.2	15.9
Kerala	38.4	14.9	15.5	21.1	16.3	16.3
Lakshadweep	18.3	24.5	18.4	9.8	13.3	9.7
Tamil Nadu	17.0	16.4	16.4	16.7	16.9	17.0
Telangana	17.1	15.4	15.9	13.5	13.9	13.9
North-Eastern Region						
Arunachal Pradesh	9.2	14.2	10.7	8.9	16.9	10.6
Assam	9.5	17.4	15.8	11.2	17.5	16.1
Manipur	6.6	10.0	9.1	4.8	8.4	7.2
Meghalaya	11.8	23.8	12.2	11.3	17.5	11.7
Mizoram	5.6	17.6	6.0	4.0	6.5	4.0
Nagaland	6.0	19.0	7.8	4.2	12.1	4.7
Sikkim	7.5	9.2	8.4	4.9	12.8	9.8
Tripura	10.2	19.8	17.5	11.8	22.4	19.7
All India	20.5	17.9	18.2	18.8	17.4	18.2

NA: Not Available

Source: NFHS 4 and NFHS 5

Table S.5.23: Percentage of women of age 15-49 with anaemia by states, India, 2015-16 to 2019-21

ST		2015-16			2019-21		
		Non-ST	Total	ST	Non-ST	Total	ST
Eastern and Central Region	Bihar	64.4	60.1	60.3	64.7	63.5	63.5
	Chhattisgarh	55.9	43.3	47.0	70.9	56.7	60.8
	Jharkhand	75.0	61.8	65.2	72.0	62.8	65.3
	Madhya Pradesh	64.0	49.9	52.5	64.2	52.3	54.7
	Odisha	63.3	47.4	51.0	71.7	62.0	64.3
	West Bengal	75.7	62.2	63.5	82.3	71.3	71.4
Western Region	Dadra and Nagar Haveli	86.3	67.6	79.5	70.9	54.6	62.5
	Daman and Diu	66.0	59.0	58.9	-	-	-
	Goa	33.6	31.6	31.3	42.5	38.4	38.9
	Gujarat	59.0	54.2	54.9	78.3	62.3	65.0
	Maharashtra	53.9	47.1	48.0	59.7	53.5	54.2
	Rajasthan	63.0	44.3	46.8	61.6	53.4	54.4
Northern Region	Himachal Pradesh	58.9	53.1	53.5	53.8	53.0	53.0
	Jammu and Kashmir	53.1	42.8	49.4	68.6	65.3	65.9
	Ladakh	79.1	58.7*	78.3	92.4	89.5	92.8
	Uttar Pradesh	57.6	52.4	52.4	51.0	50.4	50.4
	Uttarakhand	56.7	44.7	45.2	56.0	42.1	42.6
Southern Region	Andaman and Nicobar Islands	54.4	67.0	65.7	30.5	59.8	57.5
	Andhra Pradesh	71.8	59.2	60.0	62.6	58.7	58.8
	Karnataka	46.8	45.1	44.8	46.2	48.1	47.8
	Kerala	48.3	33.9	34.2	52.9	36.1	36.3
	Lakshadweep	45.9	50.9*	46.0	24.2	32.8	25.8
	Tamil Nadu	56.2	55.0	55.0	59.0	53.3	53.4
	Telangana	66.1	55.8	56.6	64.0	57.0	57.6
North-Eastern Region	Arunachal Pradesh	39.4	53.0	43.2	36.3	53.6	40.3
	Assam	48.5	46.9	46.0	69.2	68.2	65.9
	Manipur	21.6	28.5	26.4	26.8	30.3	29.4
	Meghalaya	55.6	55.6	56.2	53.3	57.7	53.8
	Mizoram	24.5	32.5	24.8	34.3	45.2	34.8
	Nagaland	27.3	33.3	27.9	27.7	42.0	28.9
	Sikkim	34.6	35.3	34.9	42.6	41.1	42.0
	Tripura	55.3	54.6	54.5	66.8	67.9	67.2
India	59.9	52.5	53.1	64.6	56.2	57.0	

Note: States and Union Territories with less than 1 per cent ST population have not been included. *Small sample size

Source: NFHS 4 and NFHS 5

Table S.5.24: Percentage of women of age 15-49 BMI in the thin category (<18.5) by states, India, 2015-16 and 2019-21

ST		2015-16			2019-21		
		Non-ST	Total	ST	Non-ST	Total	ST
Eastern and Central Region	Bihar	29.7	30.4	30.5	29.6	25.3	25.6
	Chhattisgarh	34.0	23.5	26.7	29.3	20.5	23.1
	Jharkhand	35.0	30.4	31.6	28.0	25.5	26.2
	Madhya Pradesh	34.4	27.0	28.4	27.4	21.8	23.0
	Odisha	36.6	23.5	26.5	30.6	17.7	20.8
	West Bengal	33.2	20.9	21.3	22.7	14.3	14.8
Western Region	Dadra and Nagar Haveli	36.0	16.5	28.7	31.5	19.6	25.1
	Daman and Diu	18.7	12.5	12.9	-	-	-
	Goa	26.4	13.9	14.7	16.9	13.4	13.8
	Gujarat	40.6	24.8	27.2	35.0	23.2	25.2
	Maharashtra	38.4	21.6	23.5	30.2	19.5	20.8
	Rajasthan	37.5	25.3	27.0	24.7	18.7	19.6
Northern Region	Himachal Pradesh	15.6	16.3	16.2	13.6	13.9	13.9
	Jammu and Kashmir	20.8	13.8	12.1	6.4	5.1	5.2
	Ladakh	11.3	10.6*	11.2	4.7	3.8	4.4
	Uttar Pradesh	29.6	25.2	25.3	22.3	18.9	19.0
	Uttarakhand	21.5	18.3	18.4	15.0	13.7	13.9
Southern Region	Andaman and Nicobar Islands	2.8*	14.1	13.1	6.3	9.7	9.4
	Andhra Pradesh	28.9	16.9	17.6	20.8	14.6	14.8
	Karnataka	23.6	20.7	20.8	21.3	16.7	17.2
	Kerala	20.1	9.6	9.7	18.8	9.9	10.1
	Lakshadweep	13.5	14.3*	13.5	8.3	6.3	8.0
	Tamil Nadu	18.0	14.6	14.6	19.8	12.4	12.6
	Telangana	29.7	22.3	22.9	21.5	18.5	18.8
North-Eastern Region	Arunachal Pradesh	6.3	14.4	8.5	4.2	10.1	5.7
	Assam	14.4	27.8	25.7	11.8	18.5	17.7
	Manipur	7.1	9.5	8.8	6.2	7.5	7.2
	Meghalaya	10.9	15.4	12.1	10.9	10.1	10.8
	Mizoram	8.4	8.6	8.4	5.4	3.8	5.3
	Nagaland	11.5	19.5	12.3	10.9	12.1	11.1
	Sikkim	4.0	7.9	6.4	4.2	6.7	5.8
	Tripura	14.3	20.8	19.0	12.3	17.7	16.2
India	31.8	22.2	22.9	25.5	17.7	18.7	

Note: States and Union Territories with less than 1 per cent ST population have not been included.

*Small sample size

Source: NFHS 4 and NFHS 5

Table S.5.25: Percentage of live births in health facility to women of age 15-49 in the five years preceding the survey by states

ST		2015-16			2019-21		
		Non-ST	Total	ST	Non-ST	Total	ST
Eastern and Central Region	Bihar	54.8	64.2	63.7	68.6	76.6	76.3
	Chhattisgarh	61.9	74.2	69.9	78.3	89.7	86.2
	Jharkhand	49.2	66.5	61.8	66.4	79.3	75.9
	Madhya Pradesh	60.2	87.2	80.7	82.3	93.6	91.0
	Odisha	72.4	90.4	85.3	83.0	96.2	92.4
	West Bengal	78.3	75.0	75.1	90.6	91.9	91.8
Western Region	Dadra and Nagar Haveli	84.2	94.2	88.0	96.8	96.7	96.8
	Daman and Diu	100.0	89.3	90.1	-	-	-
	Goa	94.8	97.1	96.9	100.0	99.7	99.7
	Gujarat	76.5	91.3	88.7	89.5	95.4	94.3
	Maharashtra	74.3	93.0	90.3	85.0	96.3	94.7
	Rajasthan	78.3	85.0	83.9	94.0	95.1	95.0
Northern Region	Himachal Pradesh	63.7	77.0	76.2	82.8	88.8	88.4
	Jammu and Kashmir	72.0	87.6	85.4	77.7	93.7	92.4
	Ladakh	90.8	89.3*	90.6	96.9	91.6	94.9
	Uttar Pradesh	50.2	68.1	67.7	75.3	83.8	83.6
	Uttarakhand	68.9	68.6	68.6	87.5	83.5	83.6
Southern Region	Andaman and Nicobar Islands	97.1	96.6	96.5	98.8	98.9	98.9
	Andhra Pradesh	76.9	92.5	91.4	90.3	97.1	96.7
	Karnataka	91.1	94.6	94.1	95.8	97.3	97.1
	Kerala	99.6	99.9	99.7	100.0	99.8	99.8
	Lakshadweep	99.0	100.0*	99.0	100.0	98.3	99.6
	Tamil Nadu	91.8	99.1	98.9	100.0	99.6	99.6
	Telangana	79.5	92.8	91.3	94.1	97.4	97.1
North-Eastern Region	Arunachal Pradesh	51.3	54.9	52.1	80.7	75.9	79.5
	Assam	78.2	69.5	70.5	89.7	83.6	84.3
	Manipur	44.9	82.3	69.1	59.3	90.8	80.2
	Meghalaya	52.5	41.1	51.4	58.1	65.9	58.6
	Mizoram	80.1	71.3	79.8	87.4	44.8	85.8
	Nagaland	31.3	45.7	32.7	43.7	76.4	45.8
	Sikkim	94.5	94.8	94.7	97.1	93.7	94.8
	Tripura	68.6	85.9	79.8	86.5	90.8	89.5
India	68.0	80.4	78.9	82.3	89.5	88.6	

Note: States and Union Territories with less than 1 per cent ST population have not been included.

*Small sample size

Source: NFHS 4, and NFHS 5

Section 5.6: Health Infrastructure

Table S.5.26: Requirement and Shortfall of Sub-Centres in Tribal Areas (As on 31st March 2022)

States/UTs/All India	Tribal population	Required	In Position	Shortfall	% Shortfall
Eastern and Central Region					
Bihar*	1516410	505	N App	N App	
Chhattisgarh	8073397	2691	2943	**	
Jharkhand	9086894	3028	2465	563	18.6
Madhya Pradesh	16584104	5528	3263	2265	41.0
Odisha	9635546	3211	2701	510	15.9
West Bengal	4896019	1632	970	662	40.6
Western Region					
Dadra & Nagar Haveli and Daman & Diu	153009	51	49	2	3.9
Goa*	61949	20	N App	N App	
Gujarat	8462631	2820	2756	64	2.3
Maharashtra	9501900	3167	2076	1091	34.4
Rajasthan	9977780	3325	1557	1768	53.2
Northern Region					
Himachal Pradesh	404760	134	106	28	20.9
Jammu & Kashmir	1291499	430	169	261	60.7
Ladakh#	208000	69	288	**	
Uttar Pradesh*	1182140	394	N App	N App	
Uttarakhand	280175	93	121	**	
Southern Region					
A&N Islands ¹	25465	8	41	**	
Andhra Pradesh	2235578	745	955	**	
Karnataka	3449898	1149	195	954	83.0
Kerala	230835	76	285	**	
Lakshadweep#(1)	1904	0	9	**	
Tamil Nadu	634163	211	545	**	
Telangana	2733521	911	621	290	31.8
North-Eastern Region					
Arunachal Pradesh#	856243	285	367	**	
Assam	4101442	1367	844	523	38.3
Manipur	848401	282	239	43	15.2
Meghalaya#	2378890	792	459	333	42.0
Mizoram#	536021	178	373	**	
Nagaland#	1134576	378	452	**	
Sikkim	130572	43	48	**	
Tripura	1043625	347	486	**	
All-India	101657344	33870	25383	9357	27.6

Note: NA-No data available, *: State / UT has no separate Tribal Area / Population, **- Surplus, N. APP-Not Applicable, #:States are predominantly tribal areas,

The requirement is calculated using the prescribed norms on the basis of Tribal population. All India shortfall is derived by adding state-wise figures of shortfall ignoring the existing surplus in some of the states. Mid year Tribal population for the year 2022 calculated based on the percentages of Tribal population in the Rural areas in Census 2011

Source: Rural Health Statistics 2021-22, Ministry of Health and Family Welfare, Government of India

Table S.5.27: Health worker [F] / ANM at Sub Centre in tribal areas (As on 31st March 2022)

		Required ¹	Sanctioned	In Position	Vacant	Shortfall	% Shortfall
Eastern and Central Region							
Bihar*	1516410	N App	N App	N App	N App	N App	
Chhattisgarh	8073397	2943	4119	3470	649	**	
Jharkhand	9086894	2465	3010	2955	55	**	
Madhya Pradesh	16584104	3263	4237	2253	1984	1010	31.0
Odisha	9635546	2701	2967	2741	226	**	
West Bengal	4896019	970	1890	1661	229	**	
Western Region							
Dadra & Nagar Haveli and Daman & Diu	153009	49	69	70	**	**	
Goa*	61949	N App	N App	N App	N App	N App	
Gujarat	8462631	2756	2786	2567	219	189	6.9
Maharashtra	9501900	2076	3000	2780	220	**	
Rajasthan	9977780	1557	2102	1778	324	**	
Northern Region							
Himachal Pradesh	404760	106	106	22	84	84	79.2
Jammu & Kashmir	1291499	169	203	182	21	**	
Ladakh#	208000	288	446	363	83	**	
Uttar Pradesh*	1182140	N App	N App	N App	N App	N App	
Uttarakhand	280175	121	128	104	24	17	14.0
Southern Region							
A&N Islands	25465	41	62	62	0	**	
Andhra Pradesh	2235578	955	1542	1404	138	**	
Karnataka	3449898	195	145	101	44	94	48.2
Kerala	230835	285	278	236	42	49	17.2
Lakshadweep#	1904	9	28	28	0	**	
Tamil Nadu	634163	545	590	534	56	11	2.0
Telangana	2733521	621	1213	956	257	**	
North-Eastern Region							
Arunachal Pradesh#	856243	367	NA	483	NA	**	
Assam	4101442	844	1203	1159	44	**	
Manipur	848401	239	419	310	109	**	
Meghalaya#	2378890	459	810	807	3	**	
Mizoram#	536021	373	0	381	**	**	
Nagaland#	1134576	452	1151	1100	51	**	
Sikkim	130572	48	72	75	**	**	
Tripura	1043625	486	NA	322	NA	164	

Note: NA: Data not Available. ** Surplus. N App - Not applicable, *: State / UT has no separate Tribal Area / Population, # States with predominantly tribal areas,

Source: Rural Health Statistics 2021-22, Ministry of Health and Family Welfare, Government of India

Table S.5.28: Doctors at PHCs in tribal area (As on 31st March 2022)

		Required ¹	Sanctioned	In Position	Vacant	Shortfall	% Shortfall
Eastern and Central Region							
Bihar*	1516410	N App	N App	N App	N App	N App	
Chhattisgarh	8073397	417	563	289	274	128	30.7
Jharkhand	9086894	159	159	148	11	11	6.9
Madhya Pradesh	16584104	361	552	332	220	29	8.0
Odisha	9635546	445	474	356	118	89	20.0
West Bengal	4896019	102	155	104	51	**	
Western Region							
Dadra & Nagar Haveli and Daman & Diu	153009	6	6	6	0	0	0.0
Goa*	61949	N App	N App	N App	N App	N App	
Gujarat	8462631	422	736	641	95	**	
Maharashtra	9501900	318	764	633	131	**	
Rajasthan	9977780	243	313	258	55	**	
Northern Region							
Himachal Pradesh	404760	45	50	32	18	13	28.9
Jammu & Kashmir	1291499	60	82	44	38	16	26.7
Ladakh#	208000	33	109	55	54	**	
Uttar Pradesh*	1182140	N App	N App	N App	N App	N App	
Uttarakhand	280175	13	13	11	2	2	15.4
Southern Region							
A&N Islands	25465	4	8	7	1	**	
Andhra Pradesh	2235578	158	316	221	95	**	
Karnataka	3449898	31	34	28	6	3	9.7
Kerala	230835	40	106	97	9	**	
Lakshadweep#	1904	4	12	12	0	**	
Tamil Nadu	634163	96	194	174	20	**	
Telangana	2733521	95	143	110	33	**	
North-Eastern Region							
Arunachal Pradesh#	856243	131	NA	152	NA	**	
Assam	4101442	188	329	264	65	**	
Manipur	848401	48	154	139	15	**	
Meghalaya#	2378890	147	188	195	**	**	
Mizoram#	536021	66	0	67	**	**	
Nagaland#	1134576	136	140	137	3	**	
Sikkim	130572	12	16	16	0	**	
Tripura	1043625	53	NA	121	NA	**	

Note: NA: Data not Available. ** Surplus. N App - Not applicable, *: State / UT has no separate Tribal Area / Population, # States with predominantly tribal areas,

Source: Rural Health Statistics 2021-22, Ministry of Health and Family Welfare, Government of India

Table S.5.29: Rate of hospitalization per 1,00,000 population as in-patient during the last 365 days excluding childbirth: NSS 75thRound (2017-18) (in no.s)

States/UTs/All India	ST	Non-ST	All
Eastern and Central Region			
Bihar	1251	1254	1254
Chhattisgarh	1957	2104	2058
Jharkhand	753	1713	1459
Madhya Pradesh	1152	2492	2211
Orissa	2434	3670	3369
West Bengal	2637	4475	4370
Western Region			
D & N Haveli	2059	3884	2705
Daman & Diu	2041	1028	1075
Goa	2580	4757	4675
Gujarat	1926	2704	2568
Maharashtra	2038	3381	3263
Rajasthan	1604	2839	2654
Northern Region			
Himachal Pradesh	3309	4753	4664
Jammu & Kashmir	1753	2471	2398
Ladakh	1415	3331	1510
Uttar Pradesh	1576	2383	2375
Uttaranchal	1163	1759	1738
Southern Region			
A & N Islands	2466	5572	5124
Andhra Pradesh	2880	4055	3985
Karnataka	2978	2896	2900
Kerala	7901	10854	10824
Lakshadweep	5800	0	5773
Tamil Nadu	4976	3277	3308
Telangana	4213	2218	2342
North-Eastern Region			
Arunachal Pradesh	3681	3268	3584
Assam	681	1058	992
Manipur	1714	2264	2041
Meghalaya	1495	2740	1655
Mizoram	2845	2077	2832
Nagaland	1334	1755	1349
Sikkim	2819	2886	2864
Tripura	4859	5829	5512
Total	1924	3039	2938

Source: NSS 75th Round (2017-18)

Table S.5.30: Persons covered by any scheme for health insurance scheme (in per cent): NSS 75th Round (2017-18)

States/UTs/All India	ST	Non-ST	All
Eastern and Central Region			
Bihar	0.0	0.4	0.4
Chhattisgarh	62.8	65.0	64.3
Jharkhand	0.3	0.5	0.5
Madhya Pradesh	0.4	1.5	1.3
Orissa	16.2	15.4	15.6
West Bengal	20.7	12.8	13.2
Western Region			
D & N Haveli	69.7	37.4	58.2
Daman & Diu	0.00	12.9	12.3
Goa	19.1	49.2	48.0
Gujarat	20.3	12.1	13.4
Maharashtra	1.6	8.1	7.6
Rajasthan	48.5	32.8	35.2
Northern Region			
Himachal Pradesh	8.5	12.5	12.2
Jammu & Kashmir	0.8	3.3	3.1
Ladakh	0.7	0.0	0.7
Uttar Pradesh	0.8	1.4	1.4
Uttaranchal	3.9	6.1	6.0
Southern Region			
A & N Islands	2.4	12.3	10.9
Andhra Pradesh	80.7	72.2	72.7
Karnataka	7.7	7.8	7.8
Kerala	47.0	39.8	39.9
Lakshadweep	16.6	0.0	16.5
Tamil Nadu	6.0	19.1	18.8
Telangana	92.0	59.1	61.1
North-Eastern Region			
Arunachal Pradesh	7.9	5.1	7.2
Assam	7.8	4.6	5.2
Manipur	1.3	1.6	1.5
Meghalaya	53.0	59.8	53.9
Mizoram	78.5	82.6	78.6
Nagaland	5.8	1.5	5.6
Sikkim	2.2	3.1	2.8
Tripura	14.0	15.7	15.1
Total	21.6	14.9	15.5

Source: NSS 75th Round (2017-18)

Table S.5.31: Percentage break-up of hospitalization cases by type of hospital across social groups during the last 365 days (In per cent): NSS 75th Round (2017-18)

75th Round: 2017-18				
ST	Govt. Hospital	76.5	61.0	74.6
	NGO/Charity	1.6	2.1	1.6
	Private Hospital	21.9	36.9	23.8
SC	Govt. Hospital	65.9	50.6	63.0
	NGO/Charity	1.5	3.1	1.9
	Private Hospital	32.6	46.3	35.9
OBC	Govt. Hospital	52.4	39.7	48.4
	NGO/Charity	1.8	2.8	2.1
	Private Hospital	45.8	57.5	49.5
GEN	Govt. Hospital	48.2	32.7	41.4
	NGO/Charity	2.2	3.3	2.7
	Private Hospital	49.6	64.0	55.9
Non-ST	Govt. Hospital	54.6	38.5	49.2
	NGO/Charity	1.8	3.0	2.2
	Private Hospital	43.6	58.4	48.6
All	Govt. Hospital	56.5	39.1	51.0
	NGO/Charity	1.8	3.0	2.2
	Private Hospital	41.6	57.8	46.8

Note: This information is not available in 71st (2014) round.

Source: NSS 75th Round (2017-18)

Table S.5.32: Average medical, total health and out of pocket expenditure incurred for treatment during stay at hospital per case of hospitalization in the last 365 days (Rs.): NSS 75th Round (2017-18)

States/UTs/All India	Medical			Total Health			Out of Pocket		
	ST	Non-ST	Total	ST	Non-ST	All	ST	Non-ST	All
Eastern and Central Region									
Bihar	7517	12302	12226	8957	14015	13935	7517	12262	12187
Chhattisgarh	42990	15695	23792	46808	17624	26281	42023	13806	22176
Jharkhand	14002	21462	20440	15699	24314	23134	9971	20213	18810
Madhya Pradesh	8864	15696	14951	10631	17827	17042	8716	15036	14346
Orissa	4660	13644	12064	6261	16525	14720	4354	12744	11268
West Bengal	4333	17190	16747	5792	19251	18786	3567	14665	14283
Western Region									
D & N Haveli	3435	8075	5793	4319	8802	6598	3435	7108	5302
Daman & Diu	31789	19883	20915	34910	21380	22553	31789	16948	18234
Goa	3450	14417	14189	4183	16412	16157	3450	12045	11867
Gujarat	9494	19111	17849	10711	20635	19333	8048	15985	14944
Maharashtra	12384	27511	26684	13964	29448	28602	11843	24260	23582
Rajasthan	14891	16868	16690	17676	19403	19247	10597	15918	15438
Northern Region									
Himachal Pradesh	13619	19629	19366	17321	22848	22607	13112	17689	17489
Jammu & Kashmir	4766	8990	8675	6468	11083	10740	4733	8923	8611
Ladakh	13649	9340	13179	20469	11189.929	19457	13649	9340	13179
Uttar Pradesh	10604	25621	25526	12329	27916	27817	9276	24558	24462
Uttarakhand	31466	22243	22456	35623	25002	25246	31466	16944	17279
Southern Region									
A & N Islands	5654	19309	18363	8471	29475	28019	5654	16863	16086
Andhra Pradesh	11313	18752	18431	13356	20903	20577	10895	16539	16295
Karnataka	11205	18132	17712	13070	20096	19669	10372	15730	15405
Kerala	5243	19363	19260	7537	21585	21482	5024	17324	17234
Lakshadweep	11865	0	11865	16428		16428	10898		10898
Tamil Nadu	4597	17884	17516	6731	20613	20228	4597	16139	15819
Telangana	18113	24969	24204	27601	27930	27893	17754	22713	22160
North-Eastern Region									
Arunachal Pradesh	4991	3783	4731	7017	5164	6618	4924	3563	4631
Assam	6510	16842	15589	8551	19753	18394	5465	14891	13747
Manipur	6500	19816	15283	9415	23987	19027	6491	19337	14964
Meghalaya	5287	8781	6033	7191	10366	7869	3480	6315	4085
Mizoram	12064	5128	11974	14872	6782	14767	4510	1669	4473
Nagaland	8070	6078	7978	11200	8016	11053	7644	6078	7572
Sikkim	5265	8211	7241	8386	11324	10357	4982	6690	6128
Tripura	2317	8302	6577	3331	10060	8120	2301	7720	6158
Total	12020	20310	19818	14357	22531	22046	10821	18273	17830

Source: 75th Round (2017-18)

Table S.5.33: Average medical, total health and out of pocket expenditure incurred for treatment during stay at hospital per case of hospitalization in the last 365 days (Rs.): NSS 75th Round (2017-18)

Medical Expenditure			
	Rural	Urban	Total
ST	10950	18268	12020
SC	14510	19261	15798
OBC	15946	21519	17838
GEN	20332	33909	26488
Non-ST	16870	26332	20310
All	16407	26132	19818
Health Expenditure			
ST	13334	20332	14357
SC	16721	21126	17915
OBC	18182	23579	20014
GEN	22777	36136	28834
Non-ST	19160	28432	22531
All	18705	28231	22046
Out of Pocket			
ST	10559	12349	10821
SC	13668	17437	14690
OBC	15458	19112	16698
GEN	19213	26766	22638
Non-ST	16119	22043	18273
All	15685	21803	17830

Note: In this round (75th), medical and health expenditure figures are not exactly matched with the report. After checking all necessary calculation still there is minor differences between the figures.

In 60thround, no samples were collected from Ladakh &Kargil districts so we can't extract Ladakh UT from the JK state.

Wherever figures are coloured red it means that the sample size is less than 30 in the respective group.

* also denotes the sample size is less than 30 in the respective group.