

Working Paper  
January 2015

**SOCIOECONOMIC  
AND  
GENDER ANALYSIS  
OF  
TRIBAL POPULATIONS IN INDIA**

**Authors:  
Deepti Kc & Samik Adhikari**



## ACKNOWLEDGEMENT

The authors would like to acknowledge that without the guidance and involvement of the PRADAN team, this research would not have been possible. We would like to thank all district level PRADAN Team Leaders: Pradyut (Bastar); Vishal Jamkar (Kanker); Sameer Kumar (Mandla); Prabhat Pandey (Shahdol); Srihari Chity (Koraput); Sukanta Sarkar (West Midnapur); and Bijay Swain (Sirohi) for their feedback during the design of the questionnaire. The IFMR researchers benefitted from these team leaders' grassroots level experiences in their respective districts. The authors would like to thank Narendranath D, Anirban Ghose, Dibyendu Chaudhuri and Gurshabadjeet Singh from PRADAN for their active involvement and guidance throughout the study.

We thank IFMR Regional Field Manager Projjal Saha; IFMR Field Executive Rakesh Kumar Barai; IFMR Senior Software Associate Sachin Shrivastava; and PRADAN Field Researchers Amit Kumar and Sanjay, for setting up an effective monitoring system to ensure quality data from difficult areas. We would also like to acknowledge our research intern Sayantan Mitra's work while compiling the report. Lastly, we would like to thank our advisor for the study, Dr. Ajay Kumar Tannirkulam, for his inputs.

This research is commissioned by the Professional Assistance for Development Action (PRADAN) and partly funded by the Ford Foundation.

# TABLE OF CONTENT

## EXECUTIVE SUMMARY

### CHAPTER 1: INTRODUCTION

The Tribal Community in India	14
Government Schemes and Policies for Tribal Communities	15
Profile of the Study Area	16
Research Methodology	18
Sampling Strategy	18
Research Instrument	19
Description of a Household	19
Characteristics of Respondents	20
Household Demography	21
Household Size, Religion, Caste and Language	21
Household Type	21
Household Assets	23
Monthly Expenditure	25
SUMMARY OF CHAPTER 1	26

### CHAPTER 2: LITERACY AND EDUCATION

Literacy Levels of Males and Females	30
Presence of Educational Institutions	32
Children's Education	34
Enrolment in Schools	34
School Attendance	35
School Dropouts	35
Youth Activities	36
Investment in Education	37
Parents' Aspirations for Children's Education	37
SUMMARY OF CHAPTER 2	38

### CHAPTER 3: HEALTH AND HYGIENE

Access to Healthcare Services	42
Presence of Medical Institutions	42
Anganwadi Services	42
Health Treatment	44
Nutrition, Water and Sanitation	46
Drinking Water	46
Sanitation and Hygiene	47
Food and Nutrition	48
Reproductive Healthcare	49
Reproductive Rights	50
SUMMARY OF CHAPTER 3	

### CHAPTER 4: LIVELIHOODS

Agriculture	56
Crops and Cropping Patterns	58
Paddy Cultivation	59
Maize Cultivation	60
Millets Cultivation	61
Wheat Cultivation	61
Other Crops	62
Agricultural Inputs from the Government	62
Crops Sale	61
Livestock	64
Forest-Based Livelihoods	65
Awareness of Forest Rights	65
Dependence of Forest	66
Collection and Sale of Forest Produces	66
Migration	70
Enterprises	72
Wage Employment	73
Wage for Labourers and Gender Disparity	73
Payment of Farm and Non-Farm Labourers	75
Inclusive Annual Household Income	77
SUMMARY OF CHAPTER 4	78

## **CHAPTER 5: DOMESTIC VIOLENCE AND INTRA-HOUSEHOLD**

### **RESOURCE ALLOCATION**

Domestic Violence	82
Economic Abuse	83
Unpaid Work of Women	85
Women's Mobility	86
SUMMARY OF CHAPTER 5	87

## **CHAPTER 6: SOCIAL INSTITUTIONS AND GOVERNMENT SCHEMES**

Access to Financial Services	92
Banking Services	92
Savings Behavior	94
Urgent Need of Credit	94
Insurance	96
Participation in Self Help Groups (SHGs)	97
Women's Political Participation	98
Participation in Government Schemes	99
Performance of National Rural Employment Guarantee Scheme (NREGS)	104
Performance of Public Distribution System (PDS)	105
SUMMARY OF CHAPTER 6	107

## **CHAPTER 7: THE WAY FORWARD**

Key Study Findings	111
Key Recommendations	113

## **ANNEXURE REFERENCES**



## EXECUTIVE SUMMARY

According to 2011 Census Data, 8.6% of India's total population belongs to Scheduled Tribes (STs), and the majority of them reside in rural areas (90%), mostly in remote and inhospitable areas such as near forests and hills. Due to the nature of tribal communities' habitation in forests and hilly tracts, this population has remained beyond the realm of the general development process, resulting in widening gaps in infrastructure and development facilities.

The Government of India has made affirmative policies, programmes and enacted laws for the welfare, development and protection of the tribal population. The Ministry of Rural Development has launched the National Rural Livelihood Mission (NRLM) scheme to promote livelihoods of the rural poor and NRLM mandates that 50% of the beneficiaries come under Schedule Castes/Schedule Tribes (SC/STs) category. Additionally, many Non-government Organisations (NGOs) are also engaged in promoting and nurturing Self Help Groups (SHGs) and enhancing the vulnerable rural groups' livelihood capabilities by providing them with access to sustainable income-generating opportunities.

The Professional Assistance for Development Action (PRADAN), a leading NGO in India, commissioned this baseline evaluation study to assess socioeconomic status in rural tribal regions of seven districts in five states: Chhattisgarh (Bastar, Kanker); Madhya Pradesh (Mandla, Shahdol); Orissa (Koraput); Rajasthan (Sirohi) and West Bengal (West Midnapur). These are the districts where PRADAN has started working through their newly formed teams. This study focused on assessing the prevailing socioeconomic conditions in the study site by collecting baseline data on economic conditions of inhabitants; community structure and infrastructure; demographic conditions; livelihood strategies of tribal inhabitants; and condition of women. The study findings that are highlighted in this report would help establish baseline values of key indicators, which could help PRADAN track changes in the indicators through subsequent evaluations. In addition, the findings could also help other government and non-government

implementing agencies to design or modify the existing livelihoods interventions in the tribal region.

The report is divided into six key chapters:

- 1) Introduction
- 2) Literacy and Education
- 3) Health and Hygiene
- 4) Livelihoods
- 5) Domestic Violence and Intra Household Resource Allocation
- 6) Social Institutions and Government Schemes.

The **“Introduction”** chapter focuses on the demographic information of the study area, and highlights the poverty level of tribal inhabitants in rural regions.

The **"Literacy and Education"** chapter highlights the gender disparity in literacy, and the status of children's education in tribal regions, particularly girls' education. The chapter highlights while both boys and girls get equal opportunities to attend schools, when it comes to investment in education and parents' aspirations for their children's future, boys have more advantage. The chapter also underlines girls dropping out of schools early as they age.

The **"Health and Hygiene"** chapter highlights the inhabitants' poor access to healthcare services, explaining why the majority of the prevalent illnesses such as fever and diarrhea are not treated immediately. Further, the chapter focuses on inhabitants' access to water and sanitation. The majority of inhabitants still use open spaces for defecation and urination, and they spend less than 30 minutes to fetch water from different sources. The chapter also covers women's unhygienic lifestyle practices such as not washing hands with soap after using the toilet or before eating and not purifying drinking water, which possibly explains the high prevalence of water-borne diseases in the study region. Additionally, the chapter highlights the inadequate reproductive healthcare that pregnant women are receiving. Lastly, the chapter raises a serious concern about the high proportion of

women opting for female sterilization, often without informing their husbands. It is particularly alarming as the state governments encourage women with two or more children to undergo sterilization by offering payments or other incentives. Further research is needed to understand if this is encouraging women to opt for sterilization.

The "**Livelihoods**" chapter starts with inhabitants' engagement in agriculture, and how, due to lack of proper irrigation facilities, most of them grow paddy in *Kharif* or monsoon season only. Additionally, farmers are not receiving any agricultural inputs from the Government, and the usage of recommended dosage of fertilizers and high yield seed is limited. This probably explains the low productivity of crops in all districts. The chapter further focuses on tribal populations' dependence on forest, and to what extent they are generating income from selling forest produce. Additionally, the chapter highlights households' low engagement in enterprises, perhaps due to limited access to alternative sources of capital; and the trend of migration across the districts. Finally, the chapter emphasizes on tribal families' engagement in labour jobs in an unorganized market, and how the casual farm and non-farm sectors pay significantly less to women.

The "**Domestic Violence and Intra- Household Resource Allocation**" chapter covers the degree of abuses (both domestic and economic) that women face and how, despite perceiving that husbands abusing wives is wrong, women choose not to report. Additionally, the chapter also highlights women's restricted control on intra-household resources, which possibly explains their tolerance towards abuses.

The "**Social Institutions and Government Schemes**" chapter highlights how despite having bank accounts, many are not using them. Further, women's participation in SHGs is unsatisfactory. The findings indicate that a woman's belief that she does not have enough money to save dissuades her from joining the group while her expectation to attain financial support from the group persuades her to join the group. The chapter highlights how women exercise their political rights by voting, nonetheless,

many women do not attend any local political meeting in their own villages. Additionally, the chapter covers tribal populations' knowledge about the Government's social protection and security schemes. Barring a few schemes, many are aware of most of the social security schemes. Nevertheless, not all eligible households are receiving the benefits of such social security schemes.

Lastly, the report recommends (with examples of practices and scientific research findings) why government and non-government implementing agencies that are working with tribal populations should focus on five key areas: promoting girls' education; promoting healthy lifestyle; addressing gender-based abuses; promoting economic growth of women and involving women in farm intervention.

# **CHAPTER 1:**

# **INTRODUCTION**

---

RECOGNIZED AS A HISTORICALLY DISADVANTAGED POPULATION, THE TRIBAL GROUPS LIVE IN FORESTS AND HILLY TRACTS OF REMOTE RURAL AREAS. DUE TO THE NATURE OF THEIR HABITATION, THIS POPULATION HAS REMAINED BEYOND THE REALM OF THE GENERAL DEVELOPMENT PROCESS, RESULTING IN THE EXTREMELY POOR SOCIO-ECONOMIC STATUS OF ITS INHABITANTS.

---



## THE TRIBAL COMMUNITY IN INDIA

Rich in natural resources, the tribal belt of India stretches from Rajasthan in the west to West Bengal in the east nearly covering 100 districts in eight states (Rajasthan, Gujarat, Chhattisgarh, Madhya Pradesh, Orissa, West Bengal, Maharashtra, and Jharkhand). The majority of people living in this belt are classified as Schedule Tribes (STs), the social group defined as *"such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purpose of this Constitution."* Even though there is no characteristic definition regarding tribal groups in India, it is widely accepted that the selection of the tribal community is based on their indications of primitive traits, distinctive culture, geographical isolation, shyness of contact with the community at large and backwardness (definition provided by Ministry of Tribal Affairs, Government of India). According to the 2011 Census, 8.6% of India's total population belongs to STs, and the majority of them reside in rural areas (90%), mostly in remote and inhospitable areas such as forests and hills. Due to the nature of tribal communities' habitation in forests and hilly tracts, this population has remained beyond the realm of the general development process, resulting in widening gaps in infrastructure and development facilities.

The Government of India has recognized this group as a historically disadvantaged population, and thus after independence, the government scheduled the tribal groups in the Constitution and provided special provisions for their welfare and development. According to the Constitution (Scheduled Tribes) Order 1950 lists, there are around 744 tribes across 22 states in its First Schedule. The Constitution of India has recognized 645 tribal communities that have developed their own unique culture; language; dress and recreation; food habit; health seeking behavior; economic activities; and religion, highlighting the importance of the tribal policies for social and economic development to be group-specific or region-specific, rather than generalized uniform policies.<sup>1</sup>

## GOVERNMENT SCHEMES AND POLICIES FOR TRIBAL COMMUNITIES

The Government of India has made affirmative policies, programmes and enacted laws for the welfare, development and protection of the tribal population. One of the most important Acts pertaining to the betterment of the tribal population is the Scheduled Tribes and Other Traditional Forest Dwellers Act of 2006. In addition, the Ministry of Tribal Affairs is responsible for the overall policy, planning and coordination of programmes for the development of the tribal population. The state governments receive funds from the Ministry under several schemes to promote income-generating activities for tribal members that are below the poverty line. Meanwhile, the Tribal Cooperative Marketing Development Federation provides marketing assistance and remunerative prices to tribal communities for their minor forest and agriculture produce. The Ministry has also developed Primitive Tribal Groups (PTGs), and considering the vulnerability of this group, several schemes are provided to cover housing, infrastructure, cattle development, social security and insurance for this population. Additionally, several centrally sponsored schemes strengthen the education among tribal youth. The Ministry of Rural Development has recently launched the National Rural Livelihood Mission (NRLM) scheme to promote enterprises in rural areas by delivering channels and setting up infrastructures that maximize economic growth for the poor. In order to ensure that vulnerable groups are included in this scheme, NRLM mandates that 50% of the beneficiaries come under Schedule Castes/Schedule Tribes (SC/STs) category. Additionally, many Non-government Organisations (NGOs), such as PRADAN, are also engaged in enhancing the tribal groups' livelihood capabilities by providing them with access to sustainable income-generating opportunities.

## PROFILE OF THE STUDY AREA

This baseline study was conducted in seven districts of five states: Chhattisgarh (Bastar, Kanker); Madhya Pradesh (Shahdol, Mandla); Orissa (Koraput); Rajasthan (Sirohi) and West Bengal (West Midnapur). The districts were selected for the study as PRADAN plans to expand in these districts in the near future.

As per 2011 Census, in our study region, more than 80% of the district population resides in rural areas that are predominantly inhabited by socially and economically weaker sections of the community. Additionally, 2011 Census indicates all these districts having a high concentration of tribal populations, except in West Midnapur (West Bengal), where the percentage of the tribal population is 16%. This is, however, more than the national rate of 8.6%. Our sample consists of 82% of tribes in Bastar (Chhattisgarh); 80% in Kanker (Chhattisgarh); 81% in Mandla (Madhya Pradesh); 68% in Shahdol (Madhya Pradesh); 51% in Koraput (Orissa); 79% in Sirohi (Rajasthan); and 64% in West Midnapur (West Bengal).

This study collected baseline data on economic conditions of inhabitants; community structure and infrastructure; demographic conditions; livelihood strategies of tribal inhabitants; role and condition of women; and women's participation in the community-based organisations. The socio-economic patterns across the districts varied depending on the characteristics and provisions of the government schemes in their respective states. Nevertheless, in all seven districts, inhabitants were largely dependent on agriculture and allied activities.

As per 2011 Census, the Work Force Participation Rate (WFPR) in the rural areas of these seven districts is higher than the national rural WFPR (Annexure 1-1). However, except for Sirohi (Rajasthan) and Kanker (Chhattisgarh), the rate of rural workers in the remaining districts falls below the national rate (70%), and the rate of rural marginal workers is significantly higher than the national rate (29%), indicating that the majority of inhabitants of these districts are marginal farmers or labourers.

In the year 2006, the Ministry of *Panchayat Raj* included all these seven districts in the country's 250 most backward districts (out of 640), and all received funds from the centrally sponsored scheme called Backward Regions Grant Fund Programme.<sup>2</sup> Additionally, four districts: Bastar (Chhattisgarh), Kanker (Chhattisgarh), West Midnapur (West Bengal), and Koraput (Orissa) are all within the country's 83 districts covered under the Security Related Expenditure scheme because of their violence profile due to Naxalite movement.<sup>3</sup>

## **RESEARCH METHODOLOGY**

In this comparative report, the data used comes from 3,220 household surveys across seven districts of five states. We collected data from approximately 155 villages and in each village, 20-22 households were randomly selected for the interviews. The fieldwork for these surveys took place between January 2013 and September 2013. It is to be noted that villages were selected from PRADAN's work area, where the majority of inhabitants are tribal populations, and therefore the findings might not represent the state of the entire district or state.

### **SAMPLING STRATEGY**

Given that the study was an impact evaluation and thus while considering the sample size, we considered the following factors: desired significance level (the norm is 5%); power of a test (the test being whether the programme had an impact or not); correlation between clusters; minimum detectable effect size and the number of clusters; and the population within each cluster.

Sample sizes were determined to yield a power of 0.8 or 8% error. An intra-cluster correlation of 0.018 (standard assumption, later corroborated by the data) was assumed for the sample estimation. This resulted in a sample of approximately 460 households per district, with 20-22 households sampled in each of the 21 villages selected in the district. In each district, the PRADAN team provided us the list of villages. The villages were categorized into two groups: treatment villages and control villages. Treatment villages were those where PRADAN was working at the time of survey and control villages were those where PRADAN planned to work in the next 0-10 years.

In order to have a treatment and control balance check, the study ensured that there was no difference between the two groups at a district-level. Thus, in each district, for each treatment village, the study considered two control villages with similar characteristics through propensity score matching. For the propensity score matching, based on Census and other secondary

data available, a set of indicators, such as, proportion of tribal population; road facilities; sex ratio; presence of primary and secondary schools; distance to the nearest maternal and child welfare clinic; and total village income, were considered. In order to get the representative data of the entire study region in each district, we collected household level data from randomly selected 21 villages in each district. It is to be noted that villages of any particular district might not be comparable to the villages of another district.

### **RESEARCH INSTRUMENT**

A structured questionnaire with closed-ended questions was used to collect household level data. The questionnaire was designed in such a way that allowed us to capture information about the demographic patterns across villages and blocks; existing livelihoods practices; challenges faced by rural people in accessing the government schemes and policies; and socioeconomic conditions of women. Additionally, Focus Group Discussions (FGDs) were conducted with the village authorities and leaders to understand the resources in the villages.

### **DESCRIPTION OF A HOUSEHOLD**

In rural households, more than one family living in the same household is common. They could be immediate families, tenants, or neighbors. For our study, a household was defined as a person or a group of persons that shared a housing unit; facilities and food (or the same kitchen); and the members were related either by blood or by marriage. Family members who had migrated for a long time were not included. Nonetheless, seasonal migrants were included, irrespective of their sending money or not. In addition, as many development programmes, including PRADAN's, aim to form SHGs, any household that did not have a woman who was less than 50 years was excluded from the study.

## CHARACTERISTICS OF RESPONDENTS

The survey was conducted with the chief decision maker or the head of the household, which was assigned to any respondent who claimed to be the head, except children (persons under 18). Typically, in rural areas, the oldest male in the household is designated as the head of the household regardless of whether he is the primary source of economic support. Thus, in all districts, almost all head of the households were male (Annexure 1-2), and the average age was 41 years. As many livelihood promotion programmes target women, we also interviewed wives of the chief decision makers. The average age of women was 35 years.

## HOUSEHOLD DEMOGRAPHY

### HOUSEHOLD SIZE, RELIGION, CASTE AND LANGUAGE

In our study region, the average family size of the household was between five and six people (Annexure 1-2). On an average, each household had two children (less than 18 years) and four adults, except Sirohi (Rajasthan), where the average number of children was three. There were 16,861 individuals in our study sample (50% male and 50% female), and the average age of the sample population was 26 years. The population size may be underestimated by the exclusion of those who had migrated at the time of the survey. While the respondents reported that they were Hindus and members of Scheduled Tribes, their castes and languages varied across the districts (Annexure 1-2). Many inhabitants in Bastar (Chhattisgarh) reported of belonging to *Madia* tribe, primarily speaking in *Halvi* and *Gondi*, whereas in Kanker (Chhattisgarh) inhabitants primarily belonged to *Gond* tribe, mainly speaking *Chhattisgiri*. People of Mandla (Madhya Pradesh) and Shahdol (Madhya Pradesh) identified themselves as belonging to *Gond* tribe. Likewise, there was a good mixture of *Gadba*, *Paraja* and *Rana* castes in Koraput (Orissa) and almost all spoke *Deshia* language. Residents of Sirohi (Rajasthan) belonged to *Garasiya* tribe and spoke the local *Marwari* language and in West Midnapur (West Bengal), people recognized themselves as *Adivasi*, and spoke *Santali*.

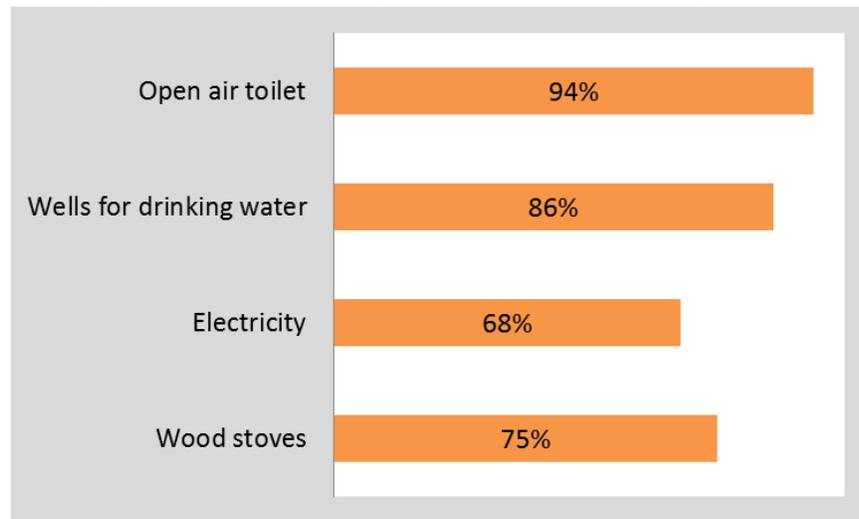
### HOUSEHOLD TYPE

Across the districts, almost everyone owned homes (99%), although the types of houses differed. For example, while houses built from mud walls (80%) and stone roofs (78%) were common in Bastar (Chhattisgarh), inhabitants of Kanker (Chhattisgarh) used houses of mud walls (93%) and roofing made of tiles (99%). Houses built with brick wall (83%) and tile roof (98%) was widespread in Mandla (Madhya Pradesh) whereas houses of mud walls (89%) and tile roofs (77%) were more regular in Shahdol (Madhya Pradesh). While the majority of houses in Koraput (Orissa) were constructed using brick walls (69%) and asbestos

roofs (57%), a small proportion of households were built using mud walls (27%) and tile roofs (38%). Houses with mud walls (48%) as well as stone walls (31%) using tile roofs (31%), and *kelu* cemented roofs (31%) were found in Sirohi (Rajasthan) whereas West Midnapur (West Bengal) had mud houses (96%) with thatch (41%), asbestos (27%), or tile roofs. The availability of electricity was common in the study area (Figure 1-1), except in Sirohi (Rajasthan) as only 32% of the households in this district reported to have electricity.

The sources of drinking water for the majority of inhabitants were either tube or open wells. A question on the travel time to the source of water was included to obtain an indirect measure of the availability of water. Almost all households reported that they could reach their source of water within 30 minutes.

**Figure 1-1: Proportion of households with basic facilities**



The majority of households did not have any toilet and inhabitants used open air to defecate and urinate, indicating inhabitants' poor access to adequate sanitation facilities. Additionally, no households across the districts used kerosene stoves to cook as women cooked using wood (as the majority had wood stoves). While the usage of wood for cooking represents the poverty level of the households, numerous scientific studies also report potentially serious adverse health effects related to breathing from the wood combustion.

## HOUSEHOLD ASSETS

Some academics and practitioners argue that possession, or lack of some consumer durable goods, can illustrate the well-being or poverty of the household. Although the justification of any durable goods as essential is dependent on the internal situation of the household as well as social, economic and physical environments of the community, nonetheless, previous research findings indicate that the poor manage to spend money to acquire essential durable goods. We asked questions on the availability of a variety of consumer goods (ranging from furniture to mobile phones, televisions, agricultural machineries). Around two of three households owned furniture and bicycles; more than half had at least one watch as highlighted in Figure 1-2.

Having access to a radio or a television exposes household members to innovative ideas and a means of transportation allows greater access to many services away from the local area. However, seemingly "non-essential" or "luxury" household items such as televisions, radios and vehicles were not so widespread in the tribal regions.

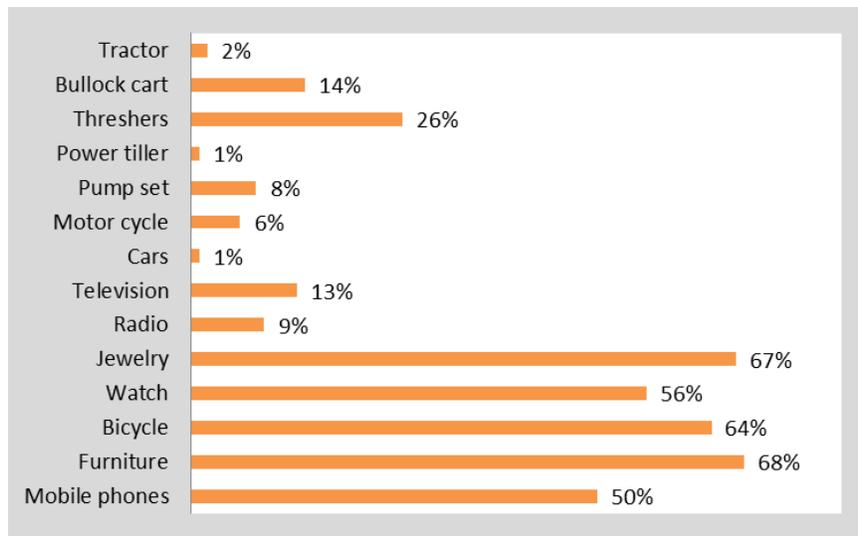
Recently, the United Nations came out with a report that said that 6 out of 7 billion people have mobile phones, but only 4.5 billion have a toilet.<sup>4</sup> This statement holds true to our findings as well. Half of the households had mobile phones. Today, many development experts argue that mobile phones could be an important development tool as they have the potential to break the rural-urban development gap by delivering information on economic and social issues. Further analysis is needed to understand what type of information can be conveyed to rural inhabitants by understanding the mobile phone usage patterns in the tribal regions.

Tribal communities have preserved their unique style of indigenous jewelry craft that is made of local materials in harmony with the local eco-system. The majority of households reported to have jewelry at home. It is to be noted that such

jewelry has a high traditional value amongst the tribal people and is a form of savings and investment for many rural households.

Lastly, the majority of households across the districts did not possess any agricultural machinery such as pump sets, power tillers, threshers, or tractors. Since most inhabitants in our study region were highly dependent on agriculture; yet few possessed these farm machineries, indicating farmers of the study region to be small or marginal farmers relying on primitive agricultural practices.

**Figure 1-2: Proportion of households with durable assets**



## MONTHLY EXPENDITURE

The study collected the expenditure data to understand the living standards of the inhabitants in the study region. According to the World Bank Report, consumption data may better reflect the well-being of the household.<sup>5</sup> World Bank defines that *"the actual consumption is more closely related to a person's well-being in the sense of having enough to meet current basic needs."* Additionally, as income flows in rural areas could be erratic and fluctuate during the year, and large shares of income are not monetized as households consume their own production, usage of consumption data could be helpful for researchers seeking to estimate the poverty level.

Our study collected weekly food consumption data, such as, how much households spent on food and other necessary items (e.g. kerosene, transportation) and temptation items (e.g. tobacco, liquor) in the previous week. Additionally, data on how much households spent on children's education; clothing and other accessories; and social functions in the previous year was collected. Based on this data and the average household size in each district, we calculated approximate monthly per capita expenditure and compared that with the Tendulkar Committee's State specific poverty lines for 2011-12.<sup>6</sup> We found that the majority of households came under the Below Poverty Line as highlighted in Table 1-1.

*Table 1-1: Monthly per-capita expenditure*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Average monthly per capita expenditure</b>	₹ 590	₹ 388	₹ 622	₹ 704	₹ 733	₹ 974	₹ 661
<b>Tendulkar Committee's state specific poverty lines</b>	₹ 738	₹ 738	₹ 771	₹ 771	₹ 695	₹ 905	₹ 783

## SUMMARY OF CHAPTER 1

**Extremely poor socio-economic status of the communities:** The average monthly per-capita expenditure data; ownership of durable goods; a means of transportation; agricultural practices; availability of electricity, water and sanitation facilities; and the quality of a households' walls and roofs provide valuable information on the welfare of the population. If we go by our data, the average monthly per-capita expenditure of the households was lower than Tendulkar Committee's state specific poverty lines. Furthermore, a large number of households did not have proper sanitation facilities; inhabitants traveled around 30 minutes to fetch drinking water; they could not purchase goods such as televisions, radios, or vehicles; lived in mud houses; and did not have agricultural machineries - all indicating the extremely poor socioeconomic status of the inhabitants.

**CHAPTER 2:**

**LITERACY**

**AND**

**EDUCATION**

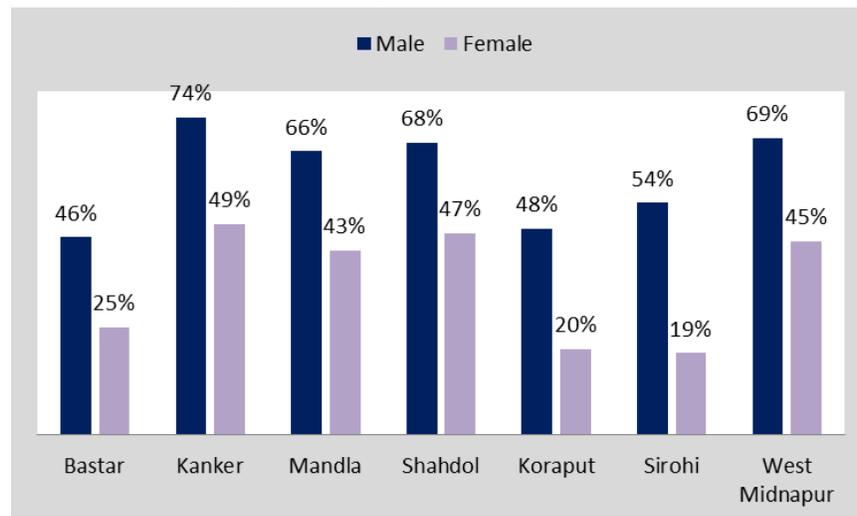
**MOSTLY, BOTH GIRLS AND BOYS GO TO SCHOOL IN TRIBAL VILLAGES;  
HOWEVER, GIRLS DROP OUT EARLY FROM SCHOOLS. FURTHERMORE,  
PARENTS HAVE LOWER ASPIRATIONS FOR GIRLS EDUCATION AND  
THEY INVEST MORE ON BOYS' EDUCATION COMPARED TO GIRLS.**



## LITERACY LEVELS OF MALES AND FEMALES

Lately, female literacy rate is a widely accepted proxy indicator of social development as it seeks to capture the degree of gender discrimination in the region. In our study region, we examined if males and females above the age of 12 could read and write. We chose the benchmark age of 12 because we assumed that all school-going children would be out of the primary school by that time, and thus they should be able to read and write. As seen in Figure 2-1, there was a significant gap in the ability to read and write between males and females across the districts.

**Figure 2-1: Proportion of males and females above aged 12 that reported they could read and write**



## AGE-WISE ABILITY TO READ AND WRITE

We further analysed the ability to read and write by categorizing respondents into three age-brackets as highlighted in Table 2-1. Findings suggest that the ability of middle-aged (25-50 years) and elderly (>50 years) respondents to read and write was significantly lower compared to the ability of the younger (<25 years) populations across the districts as shown in Table 2-1. This indicates that in tribal households, the young ones are possibly the first generation learners. What is interesting is that, even amongst younger generation, more males could read and write compared to females.

**Table 2-1: Age and gender wise ability to read and write**

		Baster	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>&lt;25 years</b>	<b>Male</b>	59%	73%	69%	73%	51%	52%	74%
	<b>Female</b>	45%	67%	63%	66%	37%	25%	65%
<b>25-50 years</b>	<b>Male</b>	31%	65%	52%	57%	37%	39%	67%
	<b>Female</b>	10%	34%	18%	22%	5%	8%	35%
<b>&gt;50 years</b>	<b>Male</b>	15%	43%	38%	28%	13%	24%	47%
	<b>Female</b>	3%	3%	5%	5%	1%	6%	10%

## PRESENCE OF EDUCATIONAL INSTITUTIONS

The village level study found that most villages across the districts had primary schools; however, only some had middle schools, few had high schools, and almost no village had any college within the village as shown in Table 2-2. We examined the distance to the school from a village, and found that the majority of students had access to school within 1 kilometer, mainly for students that were below 10 years of age as shown in Table 2-3. When it comes to students aged more than 11 years, not all had access to schools within a walking distance of 1 kilometer; nevertheless, most of them had schools within a walking distance of 3 kilometers.

*Table 2-2: Proportion of villages that had access to schools*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Primary school within the village</b>	100%	95%	95%	95%	68%	95%	47%
<b>Middle school within the village</b>	50%	43%	9%	43%	5%	50%	9%
<b>High school within the village</b>	5%	13%	0%	14%	0%	15%	5%
<b>College within the village</b>	0%	0%	0%	5%	0%	0%	0%

*Table 2-3: Proportion of children that had access to schools*

	Within 1 KM		Between 1 to 3 KM		More than 3 KM	
	Aged 6-10	Aged >11	Aged 6-10	Aged >11	Aged 6-10	Aged >11
<b>Bastar</b>	91%	61%	5%	19%	4%	21%
<b>Kanker</b>	88%	61%	7%	19%	5%	20%
<b>Mandla</b>	92%	39%	4%	23%	3%	38%
<b>Shahdol</b>	57%	56%	22%	25%	21%	19%
<b>Koraput</b>	51%	18%	11%	16%	38%	66%
<b>Sirohi</b>	84%	70%	10%	14%	6%	16%
<b>West Midnapur</b>	64%	49%	24%	30%	13%	20%

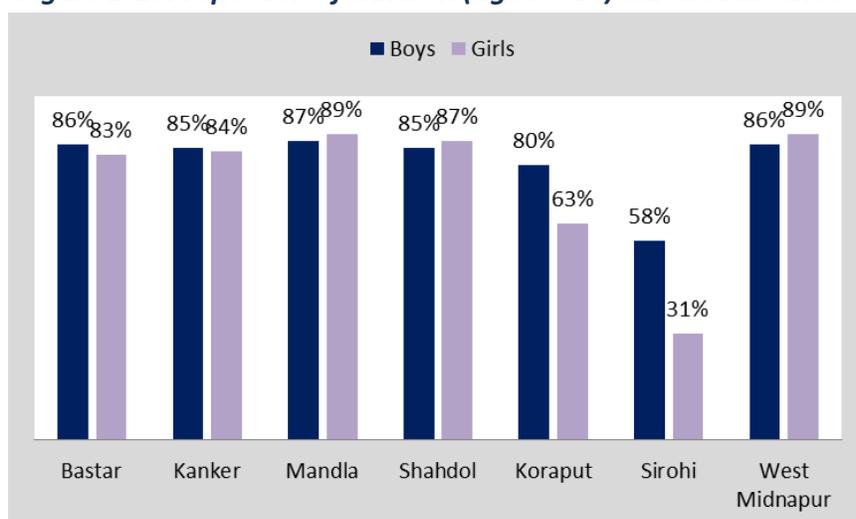
## CHILDREN'S EDUCATION

### ENROLMENT IN SCHOOL

Our study found an encouraging result of the majority of boys and girls between 3-18 years of age being enrolled in schools, except in Sirohi (Rajasthan) and Koraput (Orissa) as highlighted in Figure 2-2. In Koraput (Orissa), 80% of boys went to schools at the time of survey; however, only 63% of girls were enrolled. The ones who did not go were engaged in household activities (33%) and farm work (21%). Likewise, in Sirohi (Rajasthan), only one in three girls had an opportunity to go to schools. While parents reported that almost all boys that did not go to school were engaged in productive work, almost half of the girls (46%) who were not enrolled in schools were engaged in productive work. Another 41% of the girls that were not enrolled in schools helped family members with household chores, and 5% were engaged as child labourers.

Overall, barring Sirohi (Rajasthan) and Koraput (Orissa), the majority of boys and girls were enrolled at schools at the time of the survey. Perhaps the high penetration of primary schools in almost all villages in these districts explains the high proportion of children attending schools.

**Figure 2-2: Proportion of children (aged 3-18) enrolled in school**



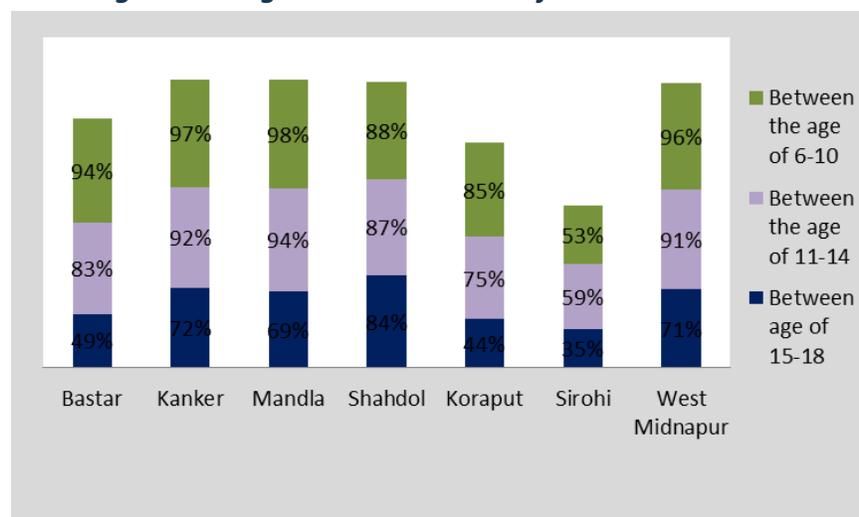
## SCHOOL ATTENDENCE

In all districts, the record of school attendance was satisfactory as, on an average, students (both girls and boys) went to school for 5-6 days in a week prior to the survey. The majority went to governments school (>75% for both boys and girls), and a small proportion of children (<8% in all districts) went to private school.

## SCHOOL DROPOUTS

Previous research has indicated students dropping out of school, particularly when they reach the secondary school. There are several reasons, including, girls getting married at an early age in rural India; the absence of secondary schools within the village; and unfriendly school environment such as lack of sanitation. In order to understand if children are dropping out of schools, we categorized children into three age groups: 6-10 years, 11-14 years and 14-18 years. We found decrease in the proportion of children enrolled in schools after the age of 15 as shown in Figure 2-3. In some districts, we found gender disparity in the school attendance, particularly in the age bracket of 15-18 years as highlighted in Table 2-4.

**Figure 2-3: Age-wise enrollment of children in school**



*Table 2-4: Age and gender wise enrollment in school*

		Baster	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>6-10 years</b>	<b>Boys</b>	94%	97%	99%	84%	87%	68%	95%
	<b>Girls</b>	94%	97%	98%	92%	83%	38%	97%
<b>11-14 years</b>	<b>Boys</b>	88%	91%	92%	86%	85%	73%	91%
	<b>Girls</b>	74%	93%	96%	88%	62%	43%	92%
<b>15-18 years</b>	<b>Boys</b>	56%	72%	68%	83%	61%	51%	70%
	<b>Girls</b>	42%	72%	71%	85%	29%	20%	72%

### YOUTH ACTIVITIES

We further examined the level of schooling that youth aged 19-22 years had attained in our study region. Across the districts, only 10% had attended high schools. There was a gender disparity in education amongst this group. For example, 15% of men had completed the high school compared to 6% women. Likewise, only 5% of men had graduated compared to 3% women. At the time of survey, only 13% of young people were students. Amongst young men, 19% were students, and 45% were engaged in income generating activities such as farm work. Amongst women, 7% were students, and 39% were engaged in income generating activities. At the time of the survey, 9% of men were married compared to 42% women.

## INVESTMENT IN EDUCATION

Our study found that across the districts, investment in education including clothes, books, uniform etc. was significantly higher for a male child compared to a female as seen in Table 2-5.

*Table 2-5: Investment in education*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
Boys	₹ 963	₹ 975	₹ 1,787	₹ 988	₹ 1,987	₹ 2,931	₹ 2,199
Girls	₹ 757	₹ 759	₹ 1,527	₹ 688	₹ 1,513	₹ 2,390	₹ 1,583

## PARENTS' ASPIRATIONS FOR CHILDREN'S EDUCATION

Across the districts, parents had higher aspirations for their sons' education compared to daughters'. For example, as highlighted in Table 2-6, more parents hoped their sons graduate or go to college compared to their daughters. Additionally, 35% of mothers believed that daughters should be less educated than sons, mainly because of girls getting married soon. The majority of mothers (71%) believed that girls should be married within the age of 15-19.

*Table 2-6: Proportion of parents that aspired their children graduate or go to college*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
Boys	41%	42%	34%	34%	43%	45%	45%
Girls	29%	30%	17%	12%	22%	19%	27%

## SUMMARY OF CHAPTER 2

**Low literacy levels amongst women:** The study found a substantial gap in the ability to read and write between males and females across the age group. Even compared to young males below the age of 25 years, lower proportion of young females were able to read and write.

**Girls' school attendance decreases as they age:** Largely, in all districts except Sirohi (Rajasthan), and to some extent Koraput (Orissa), both girls and boys had an equal opportunity to attend schools. In Sirohi (Rajasthan), many girls did not attend schools due to parents' perception that girls need to be engaged in productive work and stay home to help with household chores. The study found the disparity in the school attendance of girls and boys between 14-18 years of age in some districts, highlighting that many girls probably drop out early from schools.

**Gender disparity in education:** In all districts, the study found parents investing more on boys' education compared to girls. Additionally, more parents had higher aspirations about their sons' education compared to daughters'.

**Quality of education still a concern:** Even though primary enrollment of children seems by and large to be achieved in the study area, the quality of education might still be a concern. For example, in the beginning of 2014, Pratham Education Foundation published its Annual Status of Education Report (ASER), which states that almost half of Class V students in government schools still cannot read a Class II text. The report indicated a drastic improvement in the enrollment of children in elementary school in rural India, yet it also highlighted its concerns regarding the quality of education. In our study region, given that less than 10% of the villages had access to middle schools; many youths were not pursuing any education at the time of the survey.

**CHAPTER 3:**

**HEALTH**

**AND**

**HYGIENE**

---

**POOR SANITATION FACILITIES AND HYGIENIC PRACTICES HAVE RESULTED IN FREQUENT OCCURRENCES OF ILLNESS IN TRIBAL VILLAGES. DUE TO LACK OF HEALTHCARE SERVICES WITHIN THE VILLAGES, THE PREVALENT ILLNESSES ARE NOT CURED IMMEDIATELY.**

---



## ACCESS TO HEALTHCARE SERVICES

### PRESENCE OF MEDICAL INSTITUTIONS

Table 3-1 highlights the presence of medical institutions in villages of each district. While almost all villages had *Anganwadi* services, many villages did not have healthcare centers, government or private hospitals, and professional doctors within the villages. It is to be noted that healthcare facilities, such as *Anganwadi*, provide limited services. The difficulties of accessing these healthcare services may reduce the likelihood of seeking primary or follow-up care, resulting in rural residents going to hospitals only when the illness becomes extremely serious.

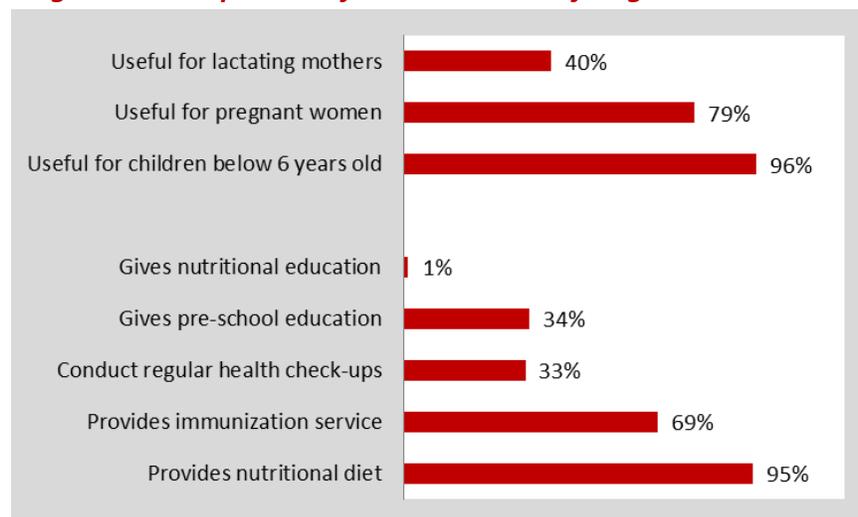
**Table 3-1: Proportion of villages that had access to healthcare services and the average distance to the nearest institution**

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Anganwadi services</b>	100%	95%	95%	100%	67%	100%	81%
		-	-	-	3 Km	-	2 Km
<b>Healthcare Center</b>	0%	19%	0%	25%	0%	5%	5%
	10 Km	6Km	8Km	9 Km	9 Km	8 Km	5 Km
<b>Government hospital</b>	0%	12%	0%	0%	0%	0%	0%
	26 Km	16 Km	34 Km	24 Km	12 Km	17 Km	12 Km
<b>Private hospital</b>	5%	0%	0%	0%	0%	0%	0%
	30 Km	22Km	38 Km	34 Km	14 Km	17 Km	43 Km
<b>Professional doctors</b>	5%	0%	5%	0%	0%	5%	5%
	11 Km	13 Km	16 Km	17 Km	12 Km	15 Km	12 Km

## ANGANWADI SERVICES

In order to enhance the health and nutrition of children aged 0-6 and mothers, the *Anganwadi* center (or courtyard shelter) was started in the year 1975 as part of the Integrated Child Development Services (ICDS) programme. Primarily managed by *Anganwadi* workers, this scheme provides outreach services to poor families in need of immunization; healthy food; and a learning environment for children and expectant/nursing mothers. In our study region, the majority of women (88%) knew about *Anganwadi* and 61% of women that knew about it reported of *Anganwadi* workers visiting them frequently. Almost all women were aware that *Anganwadi* provides care for newborn babies as well as ensures that all children below the age of six are immunized. Women were also aware that *Anganwadi* services could be useful for pregnant women. Additionally, the *Anganwadi* workers are also responsible for providing healthcare and contraceptive counseling, and nutritional education to mothers. Nearly no woman was aware of nutrition educational programme through *Anganwadi* services as shown in Figure 3-1. The majority did not know that *Anganwadi* provides health checkup and preschool education. These findings suggest that women possibly perceive *Anganwadi* as a source of supplementary nutrition for their children, not as a platform to learn about healthy lifestyle and welfare of their households.

**Figure 3-1: Proportion of women aware of Anganwadi services**



## HEALTH TREATMENT

We asked the kind of illnesses that households had been afflicted by in the previous year. The key illnesses that were reported by respondents were fever, diarrhea and body pain due to weakness. Almost all households (96%) encountered one of these top diseases, and in 47% of the households, these diseases occurred more than twice in the previous year. The inhabitants sought treatment almost every time (97%) the disease occurred; however, while 46% of the illnesses were treated immediately, 54% of the illnesses were treated when the disease was not cured at home or when the illness got critical. The health care providers that the inhabitants visited varied across districts as highlighted in Table 3-2.

The findings suggest that one in four illnesses (25%) that occurred in the previous year affected children that were less than 13 years of age. We further categorized diseases affecting boys and girls to understand if they were treated. Findings suggest that both boys and girls received equal healthcare treatment. The study also found the incidences of inhabitants visiting quacks when they fell sick.

**Table 3-2: Health care providers that inhabitants visited in the previous year**

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>PHC</b>	29%	30%	10%	29%	10%	7%	18%
<b>Dispensary</b>	30%	40%	15%	29%	5%	5%	32%
<b>Government Hospital</b>	11%	14%	16%	13%	45%	12%	19%
<b>Private Hospital</b>	12%	8%	51%	24%	33%	72%	10%

The majority of disease occurrences (86%) were cured using money arranged by the inhabitants. Most of the arrangements were through household savings (83%) across the districts. Very rarely, inhabitants had to sell their gold or land (1%) to cover the costs of the treatment. At times, inhabitants borrowed (7%) to

cover the cost. 10% of these diseases, when treated, were covered by the government's insurance scheme. The insurance coverage was high in Kanker (Chhattisgarh) and West Midnapur (West Bengal), and low in other districts as shown in Table 3-3.

**Table 3-3: Sources of money for covering the health expenses in the previous year**

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Own Savings</b>	92%	69%	91%	81%	86%	89%	81%
<b>Selling land or gold</b>	1%	1%	0%	1%	0%	1%	0%
<b>Loans</b>	2%	11%	4%	11%	12%	6%	7%
<b>Govt. Scheme</b>	5%	19%	6%	5%	5%	4%	21%

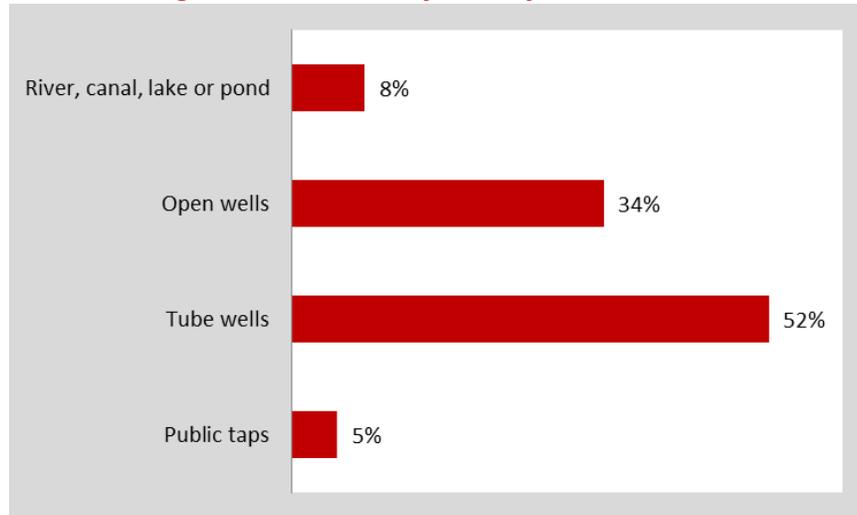
## **NUTRITION, WATER AND SANITATION**

The prevalence and spread of communicable diseases affect the poor households more than households that are better off, leading to the loss of workdays and resulting in the depletion of income and livelihoods. Such communicable diseases are mostly water-borne and depend on a number of health related factors, such as, living conditions of a household; hygiene and sanitation; and access to safe drinking water. The UNDP reports that some 1.5 million people die each year from diarrhea- related diseases, often connected to poor sanitation.<sup>7</sup> Most of these deaths could be prevented with proper sanitation; safe drinking water; and an improved way of life with good nutrition and clean hygienic lifestyle. In rural India, women are traditionally responsible for domestic water supply and sanitation, as well as maintaining a hygienic home environment. Thus, it is even more important for a woman to be aware of healthy lifestyle practices to keep herself and her family free of diseases.

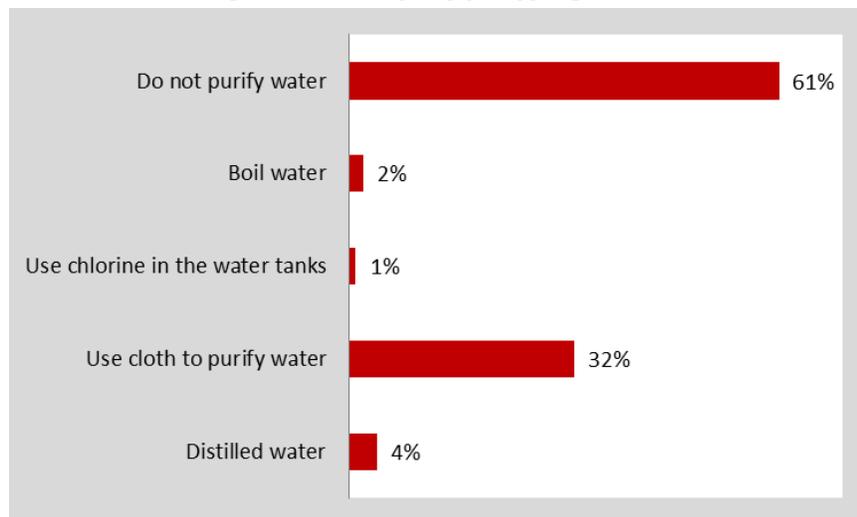
### **DRINKING WATER**

Adult women of almost all households (>90%) across the districts went to fetch water, and on an average, they spent less than 30 minutes (mostly between 15-30 minutes) to fetch water from different sources that varied amid the districts (Annexure 3-1). Regardless of the source of drinking water, it is the practice of not purifying water (or filtering it through a cloth to purify) before drinking that was notably alarming across the districts as highlighted in Figure 3-2 and Figure 3-3. It is to be noted that using cloth to purify water is the least effective method of purifying it.

**Figure 3-2: Sources of water for households**



**Figure 3-3: Ways of purifying water**



**SANITATION AND HYGIENE**

Data suggests an appallingly low access to toilet facilities in all districts (Annexure 3-2). Inhabitants of almost all households (93%) reported urinating or defecating in the open instead of using toilets connected to sewer lines. Worse, the majority of women washed hands with soap neither after using the bathroom (76%), nor before eating (90%). Lack of toilet facilities; presence of open ditches; and practices of unhygienic lifestyle by women creates unsanitary conditions, which contaminates water; breeds mosquitoes; and causes water-borne diseases. This could be the

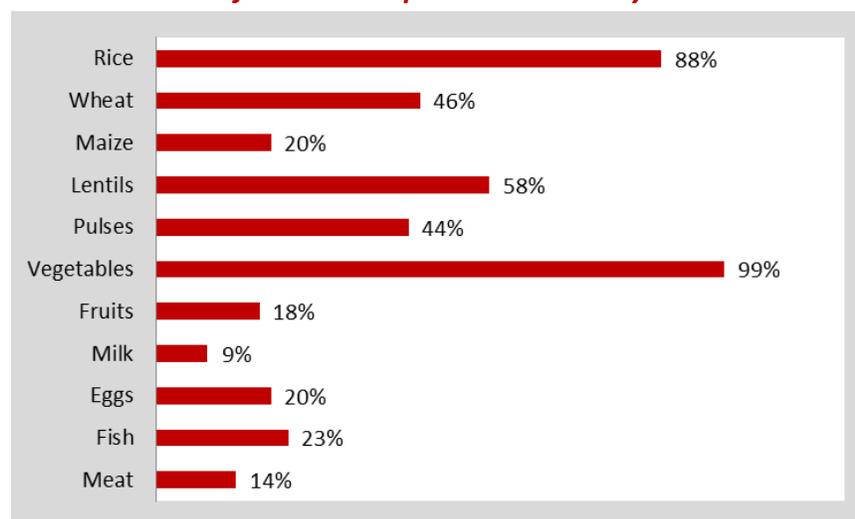
reason that fever, diarrhea, malaria, weaknesses and other ailments such as stomach pain, headache, tuberculosis, and typhoid were reported to be the top health household concerns by respondents.

### **FOOD AND NUTRITION**

In order to understand the perception of hunger from the respondents, we asked about a time when any member of the households had to stay hungry in the last 12 months due to food shortage. One in three households in Koraput (Orissa) and West Midnapur (West Bengal) suffered food inadequacy during monsoon season. It is to be noted that Koraput (Orissa) suffers from chronic drought conditions, a high level of food insecurity, and chronic income poverty resulting in absolute hunger.<sup>8</sup> Data shows that adult members of the households deliberately limited his/her own intake in order to ensure that children got enough to eat. Fortunately, in the remaining districts, only very few (8%) respondents reported food inadequacy.

The study collected data on food consumption to understand if inhabitants were taking nutritional foods. As highlighted in Figure 3-4, while many inhabitants consumed staple food such as rice, and vegetables, not many consumed protein-rich foods, a week prior to the survey.

***Figure 3-4: Proportion of households that consumed the type of food a week prior to the survey***



## REPRODUCTIVE HEALTHCARE

Reproductive healthcare and women empowerment are interrelated, especially in the remote villages where access to reproductive healthcare is scarce. Though life expectancy has improved in most regions in the past decade, the Infant Mortality Rate (IMR), which is strongly correlated to women's health, continues to be a problem. Given that infant mortality rate is one of the biggest concerns in rural India, our study attempts to understand women's reproductive practices and awareness. While a small proportion of the households (15%) across the districts reported that a baby was born in their households in the previous year, it is to be noted that almost half of the babies (47%) were delivered at home, attended only by family members or untrained birth attendants (85%). The practice of delivering at home was low in West Midnapur (West Bengal), and high in Bastar (Chhattisgarh) and Koraput (Orissa) as highlighted in Annexure 3-3. In addition, in all districts, a majority of women reported that pregnant women should eat the same (38%) or less (38%) than usual during pregnancy. This is specifically startling in Shahdol (Madhya Pradesh) where 63% women mentioned that pregnant women should have less than their usual diet. Our findings raise a serious concern about the care that a pregnant woman receives, and this probably explains (in part) the high infant mortality rates in these regions.

## REPRODUCTIVE RIGHTS

As reproductive health problems, including maternal mortality and morbidity, represent a major cause of death and disability for women in developing countries, reproductive rights have become a significant topic of concern in women's empowerment. The World Health Organization (WHO) defines reproductive rights as *"individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health."* Our study attempts to understand a rural woman's perception of her reproductive rights and if she had a choice for her own body and welfare. Remarkably, almost all women (93%) were aware of the technical means to control fertility, and almost half (49%) of those that were aware had used methods to prevent or plan pregnancies. Interestingly, half of the women who opted for planned pregnancy did not inform their husbands. Among those who used preventive methods, the majority of them (72%) opted for female sterilization. Given that many state governments encourage women with two or more children to undergo sterilization by offering payments or other incentives,<sup>9</sup> it is not surprising to see female sterilization as the most popular method to prevent pregnancies. Nevertheless, according to Human Rights Watch, there are disturbing incidents of states holding health workers under threat of salary cuts or firings if they miss sterilization targets, obstructing health workers from providing proper counseling and accurate information about contraception risk.<sup>10</sup> Moreover, a mainstream article has reported that the sterilizations of women are mostly done in unsanitary and unsafe conditions.<sup>11</sup> Further research is needed to understand the practices adopted by health practitioners in the sterilization camps and if women are provided with adequate information about sterilizations and contraceptive risks.

## SUMMARY OF CHAPTER 3

**Low access to healthcare services:** Not all villages had access to hospitals. While almost all villages had *Anganwadi*, it is to be noted that *Anganwadi* provides limited health services.

**Slow treatment of prevalent diseases:** The majority of the prevalent illnesses were not treated immediately. This could be due to the limited access to hospitals and healthcare services.

**Poor sanitation and hygiene practices:** Inhabitants used open air for toilets. Data suggests women did not practice washing hands with soap after using the toilet or before eating. Moreover, the majority of women did not purify drinking water. This could be the reason that fever, diarrhea, malaria, weaknesses and other ailments such as stomach pain, headache, tuberculosis, and typhoid were reported to be the top health household concerns by respondents.

**Lack of nutritional food intake:** Many inhabitants consumed staple food; however, not all consumed protein-rich food. Additionally, in some districts such as Koraput (Orissa) and West Midnapur (West Bengal), inhabitants reported incidences of food inadequacy during monsoon season.

**Debatable reproductive healthcare:** Almost half of the babies were delivered at home, attended only by family members or untrained birth attendants. Furthermore, a majority of women reported that pregnant women should eat the same or less than usual during pregnancy raising a serious concern about the care that a pregnant woman receives in tribal region.

**Good knowledge of reproductive rights:** Almost all women were aware of the technical means to control fertility, and almost half of them had used methods to prevent or plan pregnancies. Interestingly, half of the women who opted for planned pregnancy did not inform their husbands.

**Popularity of female sterilization:** Amongst those women that had used preventive methods to plan pregnancies, the majority of them opted for female sterilization. Thus, it is important to understand the practices adopted by health practitioners in the sterilization camps, and if women are provided with adequate information about sterilization and contraceptive risks.



# **CHAPTER 4: LIVELIHOODS**

THE MAJORITY OF TRIBAL POPULATIONS ARE DIRECTLY OR INDIRECTLY DEPENDENT UPON PRIMITIVE AGRICULTURAL PRACTICES. ADDITIONALLY, TRIBAL POPULATIONS INHABIT AREAS WITH VAST FOREST COVERAGE AND ARE THEREFORE DEPENDENT ON FORESTS FOR FOOD, FIREWOOD AND MINOR PRODUCE. TRIBAL INHABITANTS ARE MOSTLY ENGAGED IN LABOUR JOBS IN UNORGANIZED MARKETS AS WELL. IN GENERAL, THE TRIBAL HOUSEHOLDS HAVE ADOPTED A VARIETY OF LIVELIHOOD STRATEGIES TO MEET THE NEEDS.



## AGRICULTURE

It is a well-established statement that the majority of tribal populations in India are directly or indirectly dependent upon primitive agricultural practices. In accordance with 2011 Census, 84% of tribal workers in rural India are involved in agriculture. Despite such a huge proportion of the rural population in tribal districts engaged in agriculture, tribal farmers derive much less income as well as net returns from their agriculture due to smaller investments in agricultural assets and low access to agricultural technology and inputs from the state or private sector machinery.<sup>12</sup>

Our study found that 93% of households were engaged in agriculture in the previous year. Based on the reported data on the area of land that each household owned, the majority of inhabitants belonged to marginal or small farmers. We define "marginal farmers" as those farmers cultivating (as owner or tenant or sharecropper) agricultural land up to 2.5 acres. "Small farmers" includes those who are cultivating agricultural land between 2.5 and 5 acres.<sup>13</sup>

The average land holding and the average size of the agricultural land varied across the districts as shown in Table 4-1. The culture of sharecropping was not common, as only 7% of cultivators across the region reported about it. Except some in Sirohi (Rajasthan), almost all plots were reported to be rain-fed plots as shown in Table 4-1. A small proportion of farmers that managed to irrigate their plots used river, streams, canals and wells as a source of water. Nonetheless, an average area of irrigated land was less than 1 acre.

*Table 4-1: Engagement in agriculture*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Workforce engaged in agriculture Census 2011</b>	86%	92%	93%	85%	87%	74%	86%
<b>Households engaged in agriculture in our study region</b>	97%	94%	89%	92%	94%	89%	95%
<b>Rural marginal tribal farmers Census 2011</b>	51%	28%	46%	59%	50%	36%	54%
<b>Proportion of marginal families in our study region</b>	66%	26%	71%	83%	58%	88%	95%
<b>Average size of land</b>	3.44 acre	5.98 acre	3.09 acre	2.26 acre	4.48 acre	1.67 acre	1.27 acre
<b>Proportion of plots used for agriculture</b>	58%	54%	64%	65%	80%	60%	50%
<b>Average size of agricultural land</b>	2.93 acre	4.93 acre	2.86 acre	2.02 acre	3.85 acre	1.66 acre	0.93 acre
<b>Proportion of rain-fed agricultural land</b>	98%	90%	92%	86%	92%	35%	87%

## CROPS AND CROPPING PATTERNS

Our study indicates that the majority of farmers (90%) cultivated in the previous year, mainly in *Kharif* or monsoon season (89%), and some in *Rabi* or winter season (27%). The variety of crops varied across the districts as shown in Table 4-2.

*Table 4-2: Proportion of households that grew crops in the previous year*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Cultivated in the previous year</b>	95%	81%	89%	93%	94%	89%	88%
<b>Kharif Season</b>	95%	81%	88%	92%	93%	88%	87%
<b>Rabi Season</b>	3%	3%	70%	20%	16%	66%	12%
<b>Types of crops</b>	Paddy (94%)	Paddy (80%)	Paddy (79%)	Paddy (90%)	Paddy (86%)	Maize (83%)	Paddy (87%)
	Maize (9%)	Millets (15%)	Maize (36%)	Maize (27%)	Millets (81%)	Wheat (65%)	Vegetables (8%)
	Millets (7%)	Lentils (6%)	Peas (25%)	Vegetables (18%)	Oilseeds (24%)	Castor Seeds (14%)	Oilseeds (5%)
	Oilseeds (5%)	Maize (5%)	Millets (23%)	Lentils (14%)	Vegetables (21%)	Fennel Seeds (8%)	Peanuts (2%)
			Wheat (23%)	Millets (11%)	Medicinal Pipla Plant (13%)	Millets (13%)	Chick peas (1%)
			Oilseeds (19%)	Wheat (7%)	Cashews (12%)	Lentils (5%)	
			Vegetables (15%)		Maize (4%)	Chick peas (4%)	
			Chick peas (12%)			Vegetables (3%)	
			Lentils (7%)				

## PADDY CULTIVATION

Paddy was cultivated by 75% of the households in our study region. Most paddy cultivators reported that they used indigenous seeds (80%), and only a few cultivators purchased seeds. [It is to be noted that, many times, tribal farmers consider hybrid seeds as "desi" or "indigenous seeds."] Fertilizers were used by the majority of the cultivators (82%), and the type of fertilizer (organic, inorganic or mixture) varied as shown in Annexure 4-1. Across the region, some farmers also invested in fertilizers as highlighted in Annexure 4-2. While there is no common fertilizer dose in all regions, the Department of Agriculture has recommended the consumption of fertilizers for rice cultivation in all the states, and the dosage rate varies across India.<sup>14</sup> Likewise, there is a state-wise estimated consumption of fertilizers in all the states.<sup>15</sup> Assuming that farmers used fertilizers that they purchased in the previous year, we calculated the consumption of fertilizers by those farmers that purchased fertilizers and compared the data with the state-wise fertilizer consumption data. Data suggests that except in Mandla (Madhya Pradesh), farmers consumed more or less similar quantity of fertilizers as estimated by the Government as highlighted in Annexure 4-2. However, it is to be noted that many farmers used organic fertilizers in the previous year, and we do not have data from such farmers, therefore, our study cannot imply that all farmers applied an adequate dosage of fertilizers.

We compared the yield of paddy obtained from our data with official figures for the yield of paddy in each district as provided by the Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India (Agriculture Contingency Plan).<sup>16</sup> The productivity of paddy varied across the districts as shown in Table 4-3. On an average, paddy was cultivated in 1.85 acre of land, and the average production was 752 kilogram across the districts. Going by this calculation, the average productivity in tribal region was 1,034 kg/ha. [The study was conducted in the poorest region of the districts, and that possibly explains the low yield of paddy in our study region as compared to the official yield as stated by the Government.]

*Table 4-3: Productivity of paddy as reported by the cultivators*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Proportion of HHs</b>	94%	88%	79%	90%	86%	N/A	87%
<b>Govt's Official Yield</b>	1,284 kg/ha	1,284 kg/ha	696 kg/ha	817 kg/ha	2,288 kg/ha	N/A	2,063 kg/ ha
<b>Study Yield in Kharif season</b>	1,064 kg/ha	909 kg/ha	562 kg/ha	1,165 kg/ha	824 kg/ha	N/A	2,545 kg/ha

#### MAIZE CULTIVATION

Maize was cultivated by 24% of the households, mainly in Sirohi (Rajasthan) (83% of households grew maize in Sirohi); and some in Shahdol (Madhya Pradesh) and Mandla (Madhya Pradesh). However, the productivity of maize in Shahdol (Madhya Pradesh) and Mandla (Madhya Pradesh) was extremely low as compared to the official yield (the contingency plan of the Department of Agriculture, Government of India) as shown in Table 4-4. Very few cultivated in the remaining districts, thus, the data was not presentable for the comparison.

*Table 4-4: Productivity of maize as reported by the cultivators*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Proportion of HHs</b>	9%	5%	36%	27%	4%	83%	2%
<b>Govt's Official Yield</b>	–	–	1,179 kg/ha	868 kg/ha	–	1,902 kg/ha	–
<b>Study Yield</b>	–	–	253 kg/ha	549 kg/ha	–	1780 kg/ha	–

### MILLETS CULTIVATION

A group of highly variable small-seeded grasses called millets was cultivated in all the districts. In our study region, 21% of households had cultivated millets in the previous year. Nevertheless, the productivity of millets was extremely low in all the districts as highlighted in Table 4-5.

*Table 4-5: Productivity of millets as reported by the cultivators*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Proportion of HHs</b>	7%	15%	23%	11%	81%	8%	–
<b>Govt's Official Yield</b>	265 kg/ha	265 kg/ha	233 kg/ha	338 kg/ha	934 kg/ha	–	–
<b>Study Yield</b>	196 kg/ha	155 kg/ha	187 kg/ha	272 kg/ha	290 kg/ha	238 kg/ha	–

### WHEAT CULTIVATION

Wheat was cultivated by 14% of the households in our study region. Typically grown in *Rabi* season, wheat was mainly cultivated in Sirohi (Rajasthan), Mandla (Madhya Pradesh) and Shahdol (Madhya Pradesh). The productivity of wheat in Mandla (Madhya Pradesh) and Shahdol (Madhya Pradesh) was extremely low as shown in Table 4-6.

*Table 4-6: Productivity of wheat as reported by the cultivators*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Proportion of HHs</b>	–	–	23%	7%	–	65%	–
<b>Govt's Official Yield</b>	–	–	929 kg/ha	862 kg/ha	–	2,700 kg/ha	–
<b>Study Yield</b>	–	–	312 kg/ha	404 kg/ha	–	2,938 kg/ha	–

### OTHER CROPS

Apart from the above mentioned major crops, farmers also cultivated other crops. For example, different kinds of oilseeds were grown across the districts as highlighted in Table 4-2. Additionally, vegetables were also grown, particularly in *Rabi* (or winter) season. A few farmers grew chickpeas, spices, pulses and nuts. In Koraput (Orissa), 13% households grew medicinal *pipla* plant for cash income.

### AGRICULTURAL INPUTS FROM THE GOVERNMENT

In an attempt to keep farm costs low and production high, the Government of India has subsidized agricultural inputs such as fertilizers, irrigation, electricity and other subsidies to marginal farmers and farmers' cooperative societies. The Government of India pays producers of fertilizers directly so that they sell their fertilizer at lower-than- market prices. In addition, irrigation and electricity are also supplied directly to farmers at prices that are below the cost of production. With such schemes in place, it is expected that marginal farmers are taking full advantage by purchasing quality agricultural inputs to enhance agricultural production and productivity. However, not all farmers reported of receiving benefits from the government as only 12% farmers received the inputs from the government in the previous year.

### CROPS SALE

One of the primary livelihood strategies of the poor farmers is to sell crops that they have grown. Across the region, the proportion of farmers who sold their crops was low, indicating that most farmers practiced subsistence agriculture in order to serve the food requirements of the members of their households. The detailed information on the proportion of households that sold crops and average income from each crop is explained in Annexure 4-3. The proportion of households that sold at least one crop and the average income from selling crops in each district is explained in Table 4-7. In Sirohi (Rajasthan), the income from selling crops is high due to some farmers' engagement in selling castor and fennel seeds.

*Table 4-7: Proportion of households that sold at least a crop and average income from selling crops*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Proportion of HHs selling at least a crop</b>	29%	38%	14%	10%	49%	26%	32%
<b>Average income of those HHs that sold crops</b>	₹ 6,917	₹ 3,532	₹ 17,700	₹ 5,233	₹ 9,857	₹ 55,016	₹ 3,865

## LIVESTOCK

In rural India, livestock is an economic asset, and symbolizes investment and insurance for the poor. While the products (such as milk, eggs), or services (such as work, transport) or the live animals themselves can be used for domestic consumption and/or regular cash income, the livestock can also be sold in the event that a household faces a major expenditure or unexpected event.

The majority of households (88%) reported to have at least one piece of livestock at home. 63% of the households had bullocks across the region, and on average, these households had two bullocks. Goat rearing appeared prevalent in Sirohi (Rajasthan) and to some degree West Midnapur (West Bengal). 45% of households had goats, and on average, they had one goat. 58% of households had cows, and on average, these households had one cow. From our field observation, we learnt cows typically being used in the farm rather than for dairy production in the tribal region. 62% of households had hens, and on average, these households had 3-6 hens. The study found that tribal families occasionally kept buffaloes as only 27% of households had buffaloes at the time of survey, and on average, these families had one buffalo.

Overall, findings suggest owning livestock as an important trend in our study region. Further research is needed to understand the attributes affecting the way livestock assets and activities support livelihood strategies.

## FOREST-BASED LIVELIHOODS

### AWARENESS OF FOREST RIGHTS

Despite having distinct identities, unique cultures, and different ways of life, India's tribal communities share one commonality—their symbiotic relationship with forests. Many tribal populations inhabit in areas with vast forest coverage, and thus, there is a religious reverence and grateful recognition of the forests as their economy, culture and tradition are inextricably linked to the forests. Over the past century, the introduction of several forest-related decrees have legally enabled government to expropriate forest land to maximize profits, encourage conservation and discourage forest dwellers from using forest resources. This legal system caused the systematic marginalization of forest dwellers as they were deprived from using the forests, causing severe displacement and leading to the extreme poverty of this group.<sup>17</sup> After many social movements, the Forest Rights Act (FRA) was passed in December 2006 and enacted in January 2008. This act holds precedence over all other forest and wildlife-related laws, allowing forest -dependent communities to access forests. It permits cropping cultivated land in forested landscapes; collecting dry and fallen fuel wood and fodder for households; and collecting medical plants (by non-destructive ways) for sale.

In our study region, only 22% of women were aware of FRA. The awareness level was notably low in Kanker (Chhattisgarh), Bastar (Chhattisgarh) and Sirohi (Koraput) as highlighted in Annexure 4-4. Only 8% reported that their households had ever received *Ban Adhikari Patta*. Additionally, for any forest conservation effort, the role of women forest dwellers is imperative as they spend the maximum number of hours in the forests collecting wood and leaves. Only 26% women reported of their knowledge about forest conservation efforts initiated by the Department of Forest.

## DEPENDENCE ON FOREST

In rural areas, non-commercial fuel wood and animal waste continue to be the main source of energy. In the tribal region, women often enter forest areas in search of fuel wood. Additionally, tribal populations living in or near forest areas have an important relationship with forests as they depend on forest resources to meet their subsistence needs throughout the year. Table 4-8 highlights the average income that the tribal inhabitants made from selling forest produce in the previous year.

*Table 4-8: Proportion of households that sold at least one forest produce and an average income made from selling*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Proportion of HHs selling</b>	11%	73%	75%	92%	25%	17%	72%
<b>Average income of those HHs that sold forest produce</b>	₹ 1,031	₹ 3,767	₹ 1,950	₹ 3,069	₹ 1,913	₹ 4,654	₹ 9,583

## COLLECTION AND SALE OF FOREST PRODUCTS

We asked households to list their top three most important items collected in the previous year and it is shown in Annexure 4-4. The collection and sale of forest products varied as described in the subsequent sections.

**Collection of Wood:** Nearly all women went to forests to collect firewood (98%); however, very few sold it in the market, particularly in Sirohi (Rajasthan) and West Midnapur (West Bengal). 19% of women in Sirohi (Rajasthan) sold wood making an average income of ₹ 717, and 27% in Midnapur (West Bengal) making an average income of ₹ 1,665. In Sirohi (Rajasthan), 43%

reported of being harassed by officials while collecting wood. Likewise, 37% in West Midnapur (West Bengal) complained about elephants or animals chasing them and officials harassing them. Similarly, 50% in Bastar (Chhattisgarh) complained of harassment by insurgents, lack of resources to navigate forests, and harassment by officials. In Shahdol (Madhya Pradesh), 53% reported difficulties, mainly, harassment by officials and paying bribes. Almost no one complained of any difficulties in Mandla (Madhya Pradesh), Koraput (Orissa) and Kanker (Chhattisgarh).

**Collection of Leaves:** Chhattisgarh is a pioneer state producing *Tendu* or ebony leaves, accounting for 20% of the total *Tendu* leaves in the country.<sup>18</sup> Thus, it is not surprising that the majority of forest-going respondents collected leaves in both the districts of Bastar (66%) and Kanker (90%) of Chhattisgarh. More than half of those that collected leaves (54%) in Bastar (Chhattisgarh) reported facing difficulties while collecting or selling leaves and higher proportions of grievances were against harassment by insurgents (58%), and lack of resources to navigate forests (30%).

It is likely that households in Bastar (Chhattisgarh) collected leaves to make *beedi* (Indian cigarette filled with tobacco flake) or plate/bowls for household use. In Bastar (Chhattisgarh), almost no one sold leaves. It could be because, at the time of the survey, the villages where we conducted this study did not have the Chhattisgarh Minor Forest Produce Cooperative Federation that provides pre-determined payments to *Tendu* leaf collectors.<sup>19</sup> Registered collectors of *Tendu* leaves are eligible for bonus and group insurance facilities. On the other hand, almost all households collected and sold leaves (99%) in Kanker (Chhattisgarh) in the previous year. On an average, they spent 7 days in the forest to collect leaves in the month of May, and made an average income of ₹ 3,269 from selling leaves.

The majority of forest-going respondents in Mandla (87%) and Shahdol (78%) districts of Madhya Pradesh also reported of collecting *Tendu* leaves. On average, women reported spending 7-8 days primarily in the month of May in the forest collecting leaves. All sold leaves in the previous year to village cooperatives,

making an average annual income of ₹ 1,694 in Mandla (Madhya Pradesh) and ₹ 1,891 in Shahdol (Madhya Pradesh). It is to be noted that the state of Madhya Pradesh is one of the biggest *Tendu* leaves producing states in India, accounting for 25% of the total annual *Tendu* leave production in the country.<sup>20</sup>

Collection of leaves was relatively low in Koraput (Orissa) (50%). It is noteworthy that the Orissa Forest Department Corporation claims Orissa as the third largest producer of *Kendu* leaves after Madhya Pradesh and Chhattisgarh, and includes Koraput district as one of the districts that have maximum *Kendu* leaves growing areas.<sup>21</sup> Yet, selling of leaves was almost negligible (1%) in our study region. No one reported of facing any difficulties while collecting or selling leaves.

Almost half of the forest-going households collected *Sal* (48%) and other leaves, including *Kendu* leaves (33%) in West Midnapur (West Bengal). Impressively, the majority of the collectors (89% *Sal* leaves, 77% other leaves) sold leaves, making an average income of ₹ 6,096 from selling *Sal* leaves and ₹ 5,787 from selling *Kendu* leaves in the previous year.

**Collection of Mahua:** The collection of *Mahua* or *Madhuca longifolia* was low in Bastar (Chhattisgarh) (13%); nonetheless high in Kanker (Chhattisgarh) (76%). Likewise, *Mahua* collection was found to be popular in Mandla (Madhya Pradesh) and Shahdol (Madhya Pradesh). While 60% of forest-dependent households in Mandla (Madhya Pradesh) reported collecting *Mahua* in the previous year, a staggering 89% collected *Mahua* in Shahdol (Madhya Pradesh). *Mahua* was not collected in Koraput (Orissa) and Sirohi (Rajasthan), and a small percentage (10%) of forest-dependent households in West Midnapur (West Bengal) collected it.

Mainly collected in the months of March and April, the majority of *Mahua* collectors ( Bastar - 64%, Kanker-97%, Mandla- 67%, Shahdol- 95% and West Midnapur- 86%) sold their products primarily in a *haat*, a weekly market in the village. The average annual income from *Mahua* varied across the districts. For

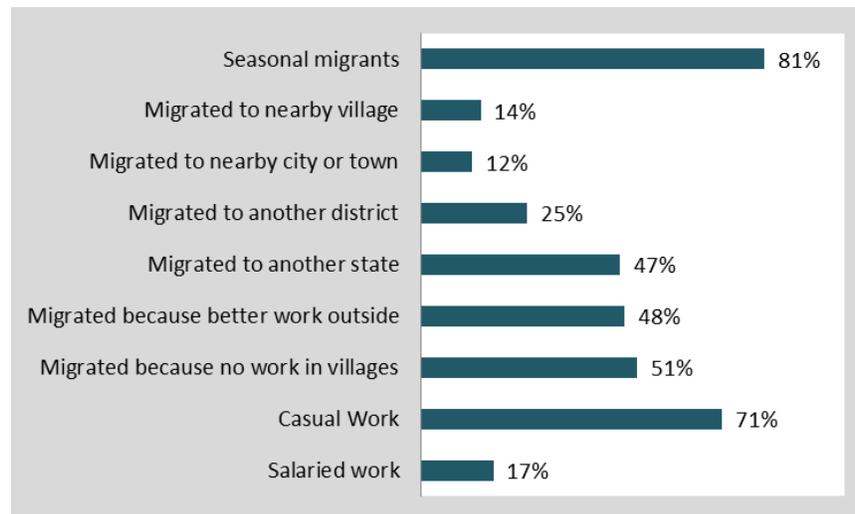
example, sellers of Bastar (Chhattisgarh) made an average income of ₹ 678 in the previous year; sellers in Kanker (Chhattisgarh) made ₹ 974. Likewise, sellers in Mandla (Madhya Pradesh) and Shahdol (Madhya Pradesh) made an average income of ₹ 454 and ₹ 1,651 respectively. A small proportion of households in West Midnapur (West Bengal) made an average income of ₹ 1,431.

**Other Forest-based Produces:** Other produces such as *neem* (Indian lilac), *char*, cashews and mushrooms were collected and sold by inhabitants. While 42% of forest dwellers collected *neem* in Bastar (Chhattisgarh) in the months from February to April, no households sold it. 17% of households in Kanker (Chhattisgarh) listed *char* as one of the most important collected items in the months of March and April, and almost all (97%) sold it in the village market, making an average income of ₹ 838 in the previous year. In Koraput (Orissa), 26% reported collecting cashews between the months of March and May, making an average income of ₹ 1,800. Likewise in West Midnapur (West Bengal), 13% collected mushrooms, making an average income of ₹ 506 in the previous year.

## MIGRATION

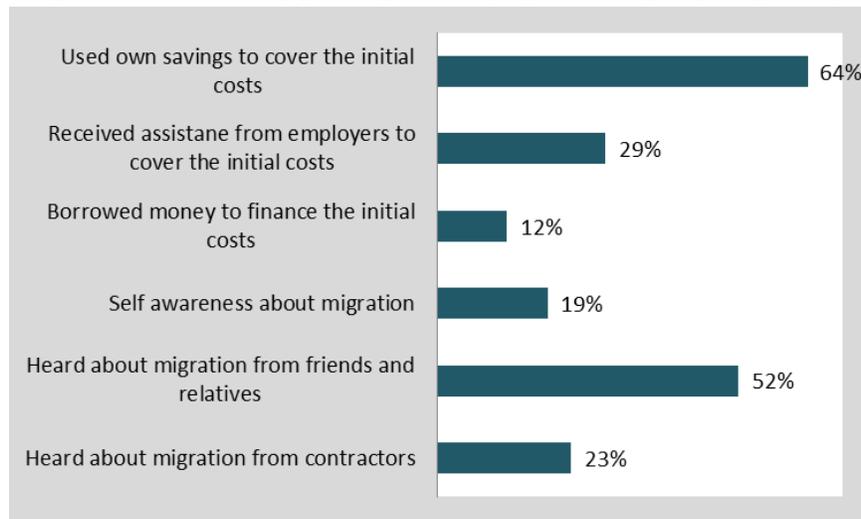
In many rural villages, a majority of people depending on rain-fed agriculture do not find work throughout the year. Under such circumstances, while some inhabitants depend on other livelihoods strategies such as labour jobs within the villages, and forest-based activities, some inhabitants migrate during off-seasons. In 21% of the households, at least one member had migrated in the previous year. While migration was relatively low in Kanker (Chhattisgarh), Bastar (Chhattisgarh), Koraput (Orissa) and Sirohi (Rajasthan), the migration trend was more evident in Mandla (Madhya Pradesh), Shahdol (Madhya Pradesh) and West Midnapur (West Bengal). The majority of these migrants were seasonal (81%) and interstate migrants, who migrated mainly due to lack of work opportunities in villages as shown in Figure 4-1. Most of them worked as casual workers.

**Figure 4-1: Profile of migrants (in percentage of migrants)**



Migrants' families reported that the migrated members learned about work opportunities from relatives and friends (Figure 4-2). In some districts, particularly in Bastar (Chhattisgarh), Kanker (Chhattisgarh), and Koraput (Orissa), many migrants learned from contractors who visited villages to recruit workers for projects outside the villages.

**Figure 4-2: Planning for migration (in percentage of migrants)**



While the reason for a household member to migrate could be to make money, there are initial expenses associated with migration, such as travel and living costs during the period of job search or unemployment. To offset these costs, the majority of migrants used their own savings (64%). In some cases, particularly in Kanker (Chhattisgarh), Bastar (Chhattisgarh) and West Midnapur (West Bengal), migrants' costs were financed by employers. At times, though not prevalent, migrants borrowed money to finance their trips as highlighted in Figure 4-2.

As reported by the family members, the average monthly earning of these migrants was ₹ 4,456. As most of the migrants were seasonal, the trend of bringing money home with themselves was popular. However, if migrants were not traveling to their native villages, many relied on their friends or other people to send money. Very few opted for formal mechanisms of remittance such as money orders or banks, highlighting the low usage of safe and cheaper remittance systems among these migrants.

## ENTERPRISES

Many households in rural areas have a diversity of livelihood activities, small and micro enterprises being one of them, which provide additional income and employment to the households. Nevertheless, households having enterprises in tribal regions seem uncommon. For example, in Bastar (Chhattisgarh), a small proportion of households (16%) reportedly had an enterprise, primarily local liquor brewing and petty shops. In Kanker (Chhattisgarh), only 19% of households reported to have an enterprise, mainly petty shops. The presence of entrepreneurship was relatively insignificant in Mandla (Madhya Pradesh), Shahdol (Madhya Pradesh) and Koraput (Orissa). Compared to these districts, Sirohi (Rajasthan) fared better as 24% of households owned enterprises, mainly goat farming and poultry. Lastly, a staggering 68% of the households in West Midnapur (West Bengal) reported owning a business. The majority of these households were engaged in *babui* rope making.

The majority of enterprises sold their products in the local market within villages across the districts. In Sirohi (Rajasthan) and West Midnapur (West Bengal), produce from one of three enterprises (32% in Sirohi and 36% in West Midnapur) were sold to middlemen. Lack of capital, and raw materials were some key difficulties that a majority of entrepreneurs faced across the districts. In Sirohi (Rajasthan), where many entrepreneurs were involved in livestock enterprises, their biggest problem was wild animals eating their livestock. In West Midnapur (West Bengal), many reported that they faced problems with the availability of raw materials (56%), quality of materials (39%) and lack of market to sell products (37%).

The low participation of respondents in non-farm enterprises in these districts is not surprising as most of the households were the poorest families who lived in subsistence income. This is the group that has limited access to alternative sources of capital, impeding any opportunity to diversify their enterprises. Typically, such families lack collateral and thus fail to get loans from formal institutions for investment in enterprises.

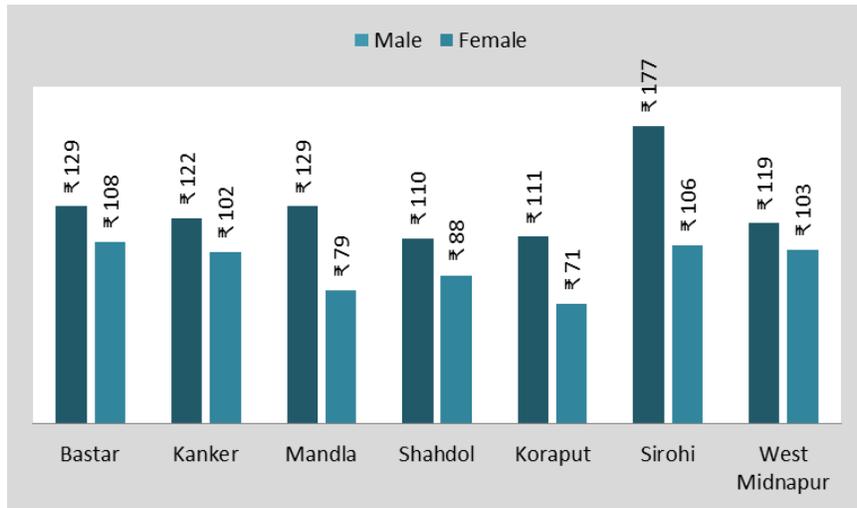
## WAGE EMPLOYMENT

### WAGE FOR LABOURERS AND GENDER DISPARITY

It is a well-established fact that many households with no or very little land (marginal farmers) work as labourers in villages. In our study region, at least a member of almost all households (92%) worked as a labourer in the previous year. A small proportion of workers were in salaried government or private jobs (6%). Otherwise, the majority of workers were engaged as wage labourers in an unorganized market. The participation in agricultural labour was significantly lower compared to non-farm, including National Rural Employment Guarantee Scheme (NREGS). At least one member was engaged in NREGS work in 42% households, casual non-farm work in 56% households and casual farm work in 32% households. On average, 2 to 3 members from a household worked as casual labourers in the previous year.

Casual labourers of an unorganized market are the most vulnerable as they are deprived of the benefits of labour enactments and are restricted to casual employment with inconsistent and lower wages.<sup>22</sup> In order to have a uniform wage structure and to reduce disparity in minimum wages across the country, the Government of India has set National Floor Level Minimum Wage at ₹ 115/day.<sup>23</sup> In our study region, on average, while labourers were paid more or less in this range; however, there was a significant gender disparity in wages across the districts. On average, daily wage for men for all types of work (salaried or labour jobs) was more than that of women, as shown in Figure 4-3. Worse, women across the districts received less than the government's official fixed minimum wage of ₹ 115/day.

**Figure 4-3: Gender-wise average daily wage rates**



Our study found that the difference in wages was rooted not only in gender, but also in the type of work as highlighted in Figure 4-4. Nonetheless, it is noteworthy that NREGS wage payment had been remarkably fair as regards to gender-based payment. On an average, across the districts, NREGS payment was essentially the same for both men and women. This result is encouraging for the NREGS scheme, which dictates that women and men are paid an equal wage.

**Figure 4-4: Gender pay gap**



## PAYMENT TO FARM AND NON-FARM LABOURERS

While nominal farm wages in India has increased by 17.5% per annum, it is still the lowest paid job in India.<sup>24</sup> Our study findings support the claim that a farm- based job was the least paid labour job compared to non-farm. In Bastar (Chhattisgarh), workers from non- farm labour received 94% more income than farm labourers. Even in Kanker (Chhattisgarh), Mandla (Madhya Pradesh) and Koraput (Orissa), non-farm labourers were paid 70% higher wages than farm labourers. Nonetheless, the wage gap between farm and non- farm labourers was low in West Midnapur (West Bengal) and Sirohi (Rajasthan). It is worth mentioning that a small proportion of male agricultural workers made an average daily income of ₹ 204 in Sirohi (Rajasthan); however, in the same district, women farm labourers were paid ₹ 92/day only. While only 8% of total workers were agricultural labourers in Sirohi (Rajasthan), it could be possible that, farmers were ready to pay higher wage to a small group of available labourers.

Additionally, the number of workdays was also high in non-farm work compared to farm work. For example, on an average, a non-farm labourer from our study region received 68 days of work, making an average annual income of ₹ 8,290 in the previous year (average daily wage for a non-farm labourer was ₹ 122). At the same time, average number of workdays available to a farm labourer was 44 days, and on an average, a farm labourer made an income of ₹ 3,603 in the previous year (average daily wage for a farm labourer was ₹ 81). The results clearly indicate that a labourer in a rural village can make more money being a non-farm worker than a farm one.

NREGS is seen as the Government's effort to provide labour jobs to rural labourers. Nonetheless, our study found that, on average, NREGS provided 26 working days only at an average daily wage of ₹ 111. This implies that a NREGS worker made an average income of ₹ 2,878, which was less than what an agricultural labourer made in the previous year.

*Table 4-9: Proportion of household engaged in casual job and average household income from each type of work*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>NREGS work</b>	42% ₹ 4,640	92% ₹ 6,353	24% ₹ 4,536	30% ₹ 3,857	17% ₹ 2,150	16% ₹ 5,408	72% ₹ 2,769
<b>Casual Non-Farm work</b>	59% ₹ 9,858	22% ₹ 6,429	59% ₹ 9,305	79% ₹ 11,125	60% ₹ 6,473	72% ₹ 34,195	44% ₹ 12,398
<b>Casual Farm work</b>	10% ₹ 4,819	56% ₹ 1,901	30% ₹ 3,475	33% ₹ 3,415	13% ₹ 4,345	7% ₹ 10,071	76% ₹ 10,139

## INCLUSIVE ANNUAL HOUSEHOLD INCOME

As highlighted in the previous sections, the households in the tribal region had adopted a variety of livelihood strategies to meet their needs. While almost all households were engaged in agriculture, not all sold crops to generate income. However, the majority of households received income from wage employment. At the same time, households received income from selling forest produce as well. Table 4-10 highlights the average household-level annual income generated through these different activities in the previous year, as reported by the respondents.

*Table 4-10: District-level average income generated from each activity in the previous year, as reported by respondents*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Selling Crops</b>	₹ 1,912	₹ 4,315	₹ 843	₹ 396	₹ 4,757	₹ 13,544	₹ 1,173
<b>Selling forest produce</b>	₹ 114	₹ 2,762	₹ 1,461	₹ 2,811	₹ 483	₹ 791	₹ 6,922
<b>Wage work</b>	₹ 14,983	₹ 19,882	₹ 13,833	₹ 16,393	₹ 7,433	₹ 32,465	₹ 22,802
<b>Estimated total income</b>	₹ 17,010	₹ 26,960	₹ 16,137	₹ 19,601	₹ 12,672	₹ 46,800	₹ 30,898

## SUMMARY OF CHAPTER 4

**Low sale of crops:** Across the surveyed area, only one in three farmers sold crops, indicating most farmers practiced subsistence agriculture in order to serve the food requirements of the members of their households.

**Ownership of livestock:** Findings suggest that owning livestock is an important trend in our study area. It is to be noted that livestock serves as an investment and insurance for the poor.

**Dependence on forest for wood:** Nearly all women collected wood from the forest however; not all sold it. Particularly in Bastar (Chhattisgarh) and West Midnapur (West Bengal), women reported of problems of harassment by officials or insurgents, or chased by wild animals while collecting wood.

**Limited income from forest produce:** The states of Chhattisgarh, Madhya Pradesh and Orissa are the largest producers of *Tendu* leaves, yet, not all could make an income out of it. While many women in Kanker (Chhattisgarh), Mandla (Madhya Pradesh) and Shahdol (Madhya Pradesh) sold leaves to the cooperative societies, no one from Bastar (Chhattisgarh) and Koraput (Orissa) reported selling leaves. Likewise, data suggests that very few forest-dependent households sold other forest produces.

**Migration:** Migration was most evident in Mandla (Madhya Pradesh), Shahdol (Madhya Pradesh) and West Midnapur (West Bengal). Almost all were seasonal migrants. To offset their initial migration costs, the majority used their own savings and seldom borrowed money. Migrants hardly used formal channels to remit money.

**Enterprise:** There was a low participation in non-farm enterprises, possibly because the inhabitants had limited access to alternative sources of capital, impeding any opportunity to diversify their enterprises.

**Gender-wise wage disparity:** Across the districts, women were paid less than men, and worse, they received less than the official minimum daily wage. The study found wage disparity across different sectors, except NREGS. However, NREGS did not provide enough number of workdays to the inhabitants.

**CHAPTER 5:  
DOMESTIC VIOLENCE  
AND  
INTRA HOUSEHOLD  
RESOURCE ALLOCATION**

IN TRIBAL AREAS, WOMEN ENDURE ABUSES AND REFUSE TO PROTEST. ONE MAJOR REASON THAT WOMEN TOLERATE VIOLENCE COULD BE DUE TO THEIR LACK OF FINANCIAL DECISION-MAKING AUTONOMY IN THE HOUSEHOLD.



## DOMESTIC VIOLENCE

One major barrier that prohibits women's health, dignity, security and autonomy amongst poor households of India is the societal tolerance of violence against women. Under Indian law, the act of domestic violence towards women is a human rights violation (Domestic Violence Act 2005), yet it is prevalent in all castes, socioeconomic classes, and religions.<sup>25</sup>

In our study region, the majority of women (82%) refused to justify a man's act of beating his wife. After much probing, around half (42%) of the women reported that they were violently abused by their husbands in the last 12 months, mainly due to alcohol consumption by the husbands, or when women refused to do too much work. The study found women hesitating to report domestic violence in all districts, and it could be possible that respondents under-reported the events of domestic violence for our study as well.

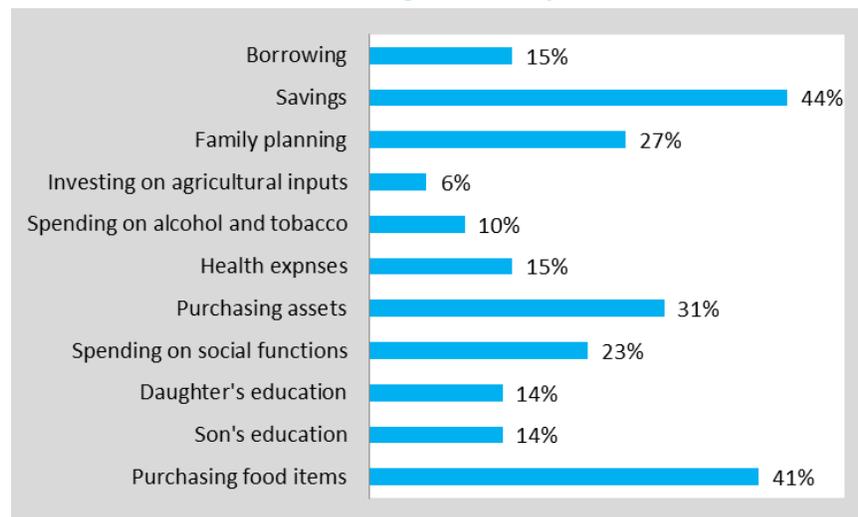
Many abused wives (72%) chose not to protest violence because they did not want others to know about their household disputes. Amongst the minor proportion of women that protested, they informed their family members and friends; not institutions such as SHGs, police or other NGOs.

## ECONOMIC ABUSE

As indicated in the previous section, many women hesitated to report incidences of domestic violence. One major reason that a woman might tolerate the violence could be her lack of financial decision-making autonomy in the households, and limited access to resources. In our study area, nearly all women (91%) reported that their names were not included on the land title deed. Additionally, while more than half of women had separate source of income (mainly through labour jobs), they could not make any financial decision on their own.

Research findings from several countries including India have shown that when women control more household income either through their own earnings, savings, or through cash transfers; children benefit because of increased spending on food and education.<sup>26</sup> Previous research has also found that a woman's decision-making autonomy has a positive effect on enrollment of her children, mainly a daughter's education.<sup>27</sup> Likewise, a woman's financial decision-making power of her family's healthcare is significantly important for the better health outcomes of her family, particularly children. However, in our study region, women did not have any decision-making autonomy on these household matters as shown in Figure 5-1.

*Figure 5-1: Proportion of women that had financial decision making autonomy*



Alarmingly, three in four women reported that they could not make any financial decision regarding family planning, raising a serious concern regarding women's reproductive rights and health in the tribal region.

In most parts of rural India, women play key role in agriculture by working along with men in production of crops right from the soil preparation until post-harvest activities. It is estimated that women are responsible for 70% of actual farm work,<sup>28</sup> yet, almost no woman had any say on agricultural-related financial decision making in our study region. While women could not make decisions on borrowing, almost half of the women reported to have decision-making autonomy when it comes to savings decisions.

Overall, our findings raise a serious concern about the lack of women's active involvement in decision-making process as it is considered essential for the well-being of the households. Some argue that economic abuse is in itself a form of domestic abuse as husbands might undermine their wives' ability to become financially independent, particularly by restricting mobility and decision-making ability.

## UNPAID WORK OF WOMEN

While women in our study area reported that they were abused for not working enough, the reality is that women traditionally work more than men do, especially in unpaid but necessary labour. Activities such as household maintenance and childcare are some examples. Such activities by women are mostly ignored and thus not acknowledged in a country's Gross Domestic Product (GDP). According to International Labour Organization (ILO), *"If household work was included in national accounts worldwide, the total world value of GDP worldwide would grow by between 25-30% and the total participation rate of time spent on labour (whether paid or unpaid) by women and men would then be found to be more or less equal"*.<sup>29</sup> Our research attempts to understand how much time a woman spent on paid or unpaid labour by utilizing a time-use survey to record respondent's activities in the previous day. Figure 5-2 illustrates an average time taken doing each activity, as reported by women. The data suggests that almost all women spent a large portion of their time doing household activities that are not considered "economic".

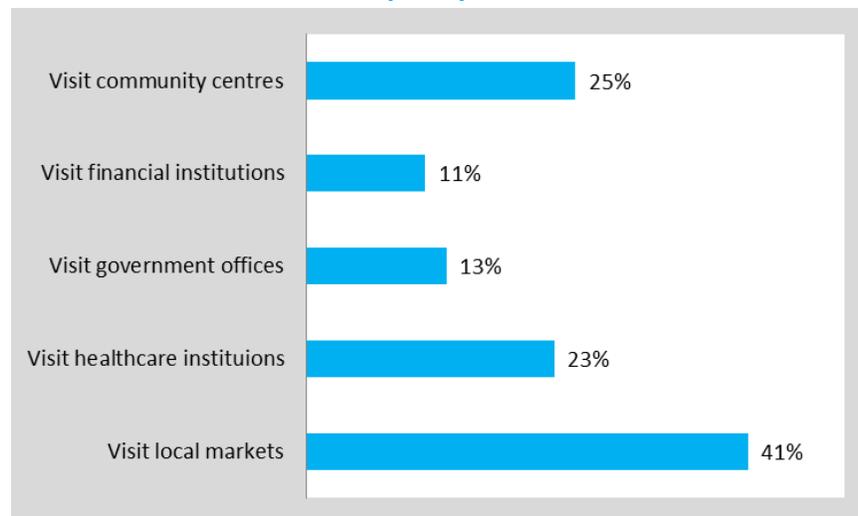
**Figure 5-2: Average time women spent on each activity on a day**



## WOMEN'S MOBILITY

Our study attempts to understand if a woman faced any restriction on her mobility by asking if she could visit different places without anyone's permission or without being accompanied by a family member. Figure 5-3 illustrates that a staggering proportion of women across the districts faced restrictions in mobility. For example, the majority of women were not permitted to visit places, including healthcare services, without being accompanied by someone else, primarily their husbands. These findings noticeably underline how this appalling restriction on a woman's mobility possibly restricts her ability to enhance the well-being of her house.

*Figure 5-3: Proportion of women that could visit the places without prior permission*



## SUMMARY OF CHAPTER 5

**Disapproval of domestic violence:** Contrary to a popular belief that women perceive abuses to be justified in rural areas, the majority of women refused to justify a man's act of beating his wife.

**Refusal to protest or report the violence:** The study found women hesitating to report domestic violence across the districts. Amongst those that reported, they chose their family and friends to report, not institutions such as SHGs, NGOs or police.

**Prevalence of economic abuse:** Nearly all women had limited financial decision-making autonomy on any household related matters such as children's education, family health expenses, agriculture, family planning and borrowing of money. Almost no women had their names included on the land title deed. What is appalling is that even though many women reported to have a separate source of income, they had limited power to make any financial decision.

**Unpaid work of women:** Almost all women spent a large portion of their time doing household activities that are not considered 'economic'; yet, they were abused for not doing enough work.

**Restriction in mobility:** Women were not permitted to visit places including healthcare services, without being accompanied by someone else, primarily their husbands. This appalling restriction on a woman's mobility possibly restricts her ability to enhance the well-being of her house.



**CHAPTER 6:**

**SOCIAL INSTITUTIONS**

**AND**

**GOVERNMENT SCHEMES**

FINANCIAL INSTITUTIONS ARE NOT EASILY REACHABLE IN THE TRIBAL VILLAGES. PERHAPS THAT EXPLAINS THE LOW USAGE OF BANKING SERVICES DESPITE INHABITANTS' HAVING SAVINGS ACCOUNTS. ALMOST ALL INHABITANTS SAVE, HOWEVER, THEY USE INFORMAL CHANNELS TO SAVE. MULTIPLE BORROWING IS PREVALENT IN THE TRIBAL REGION. DESPITE KNOWLEDGE OF GOVERNMENT SCHEMES, NOT ALL USE THE SERVICES.



## **ACCESS TO FINANCIAL SERVICES**

The poor face more risks such as agricultural losses due to poor weather, natural disasters, serious illness, death and occupational uncertainties than the well off. At the same time they are more vulnerable to the same risks because of their economic circumstances. Respondents, across the districts, were subjected to different events such as crop loss; death of livestock; loss of employment; and serious illness in the previous year. The gravity of such losses was critical in some districts. For example, 71% of households in Koraput (Orissa) reported that their families lost crops in the previous year. Likewise, 60% of households in West Midnapur (West Bengal) reported that their families dealt with serious illness. Such consequences result in the poor spending high proportions of household savings, borrowing money or selling assets, which could push them into deeper poverty and long-term debt.

As the poor have a higher occurrence of shocks (unexpected events resulting in unexpected costs), access to efficient financial services, including credit, deposits, insurance and other risk management services, has become extremely important. Evidence suggests that lack of access to financial services amongst the low income and poor households generate persistent income inequality as well as slower economic growth due to their dependence on limited savings, earnings and informal credit.

### **BANKING SERVICE**

The majority of households (75%) had at least one bank account. A small proportion of households that did not have any bank account referred to their inability to save, and households' options using other savings mechanisms as the reasons for not holding any account. Since the majority of respondents had NREGS job cards and NREGS make payments through banks and post offices, it is likely that it has enabled inhabitants to have bank accounts. Nonetheless, formal institutions were not easily reachable in most of the villages as shown in Table 6-1.

**Table 6-1: Proportion of villages that had financial institutions within the villages and average distance to the nearest institutions**

	Bastar	Kanker	Koraput	Mandla	Shahdol	Sirohi	West Midnapur
<b>Post Office</b>	12% 6 km	13% 4 km	1% 7 km	9% 7 km	5% 5 km	29% 6 km	1% 7 km
<b>Public Bank</b>	5% 10 km	0% 13 km	0% 16 km	0% 10 km	0% 11 km	0% 13 km	0% 16 km
<b>Grameen Bank</b>	0% 11 km	0% 15 km	0% 11 km	5% 12 km	0% 11 km	0% 13 km	0% 11 km
<b>Private Bank</b>	0% 39 km	0% 56 km	0% 25 km	0% 17 km	0% 11 km	0% 14 km	0% 25 km
<b>Cooperative Bank</b>	10 % 25 km	0% 17 km	0% 15 km	0% 25 km	0% 11 km	5% 13 km	0% 15 km
<b>Agri-Credit Society</b>	15% 16 km	0% 12 km	10% 15 km	5% 9 km	0% 12 km	6% 11 km	10 15 km
<b>Non-agri Credit Society</b>	0% 27 km	0% 13 km	0% 17 km	0% 24 km	0% 15 km	0% 12 km	0% 15 km

## **SAVINGS BEHAVIOUR**

Previous research findings indicate that poor households save based on their income levels, and they usually save in small amounts throughout the year, withdrawing savings for lumpy and large expenditures for life events and emergencies. This evidence is supported by our findings as the majority of respondents (86%) reported that they saved in the previous year, overwhelmingly for three specific reasons: consumption smoothening; health and other emergencies; and investment in farm. Despite having access to bank accounts, the majority of the respondents across the districts (53%) stated that they saved at home. Only 29% reported to save in banks. While saving at home does not cost anything and saves the time involved with visiting the formal institutions, this mechanism of saving leaves the money open to various risks, such as theft, loss, and devaluation. In our study region, some respondents failed to save in the past year, particularly because of their households' excessive expenses.

## **URGENT NEED OF CREDIT**

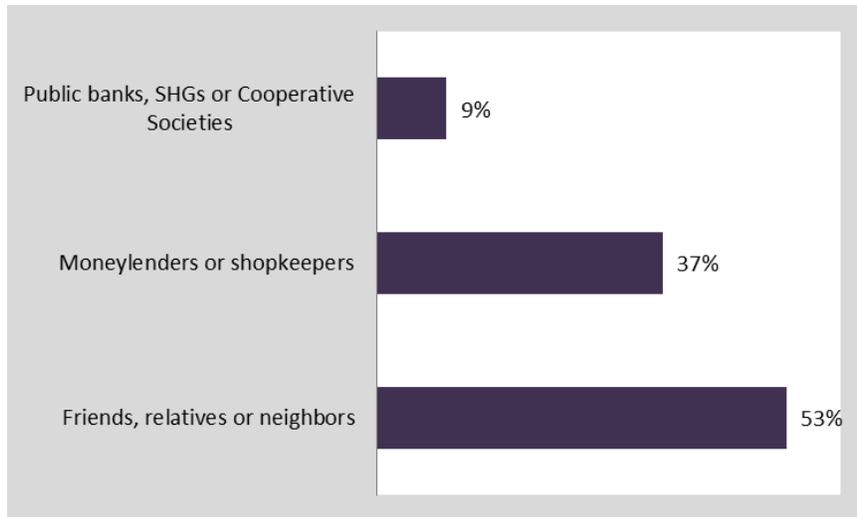
Many times, a poor man opts for more than one loan due to his inability to obtain sufficient credit from a single source during urgency. Our findings support this, as multiple borrowing was extremely prevalent across the districts with a majority of respondents taking more than one loan due to an urgent need for money as shown in Figure 6-1.

Figure 6-2 illustrates how poor people relied on their social capital for loans during times of crisis. Invariably, informal borrowing amongst friends and relatives with zero or nominal interest rates was incredibly strong. Only in West Midnapur (West Bengal) and Shahdol (Madhya Pradesh), were the majority of loans taken from moneylenders and shopkeepers. Borrowing from formal institutions was significantly low across the districts.

**Figure 6-1: Proportion of households with loans**



**Figure 6-2: Sources of loans**



The top purposes of credit were for household consumption (purchasing food, clothes); investing in agriculture; covering health expenses; and paying for various social functions. A small proportion of loans were taken for paying fees for education and repairing houses.

## INSURANCE

The Government of India has designed and offered several insurance products for the poor, some important one being, *Rashtriya Swasthya Bima Yojana* (RSBY) to provide health insurance and *Aam Aadmi Bima Yojana* (or *Janashree Bima Yojana*) to provide life insurance to the poor households. Only 43% of households across the districts reported to be insured. Particularly in Kanker (Chhattisgarh), 87% of the households reported to have insurance, with almost half of the insured households having more than one policy. 67% of policies in Kanker (Chhattisgarh) were reported to be of no cost. Approximately half the households in West Midnapur (West Bengal) and Koraput (Orissa) reported to have insurance schemes, mostly health insurance. Only one-third households in Bastar (Chhattisgarh), Mandla (Madhya Pradesh) and Shahdol (Madhya Pradesh) were insured at the time of survey. It is worth mentioning that most of the households in Shahdol (Madhya Pradesh) and Mandla (Madhya Pradesh) were involved in the collection of *Tendu* leaves from the forest. Government of Madhya Pradesh provides accident insurance to the *Tendu* leaf collectors. Sirohi (Rajasthan) fared the worst as only 12% of the household had insurance, mostly life insurance, and the majority of these policies in Sirohi (Rajasthan) were purchased for more than ₹ 1,000 for one year of coverage.

While almost all the reported policies were government-sponsored, further research is necessary to understand how efficiently the claim is processed.

## **PARTICIPATION IN SELF HELP GROUPS (SHGs)**

Promoted by the government and non-government agencies alike, SHGs provide a platform for a group of women to voluntarily come together, save small amounts and mutually contribute to a common fund to meet their needs based on mutual help. Even though SHGs are considered a village-based financial intermediary, the roots of the creation of SHGs lie in the core principle of social and economic development. SHGs can also be community platforms from which women develop leadership abilities by being active in village affairs, stand for local election or take action to address social issues. With this backdrop, our study attempts to understand if the poorest women in tribal region were aware of the SHGs and if they were participating in it

The awareness of SHGs was exceptionally high amongst women as 75% of them reported of knowing about its concept. However, it is to be noted that awareness of SHGs was found to be relatively low in Sirohi (Rajasthan) (46%). Despite knowledge about SHGs, only 31% of women (41% of those that knew of SHGs) were SHG members. We tried to understand why women chose not to be part of SHGs, despite having knowledge. The study findings conclude that, across the districts, a woman's belief that she did not have enough money to save dissuaded her from joining the group while her expectation to attain financial support from the group persuaded her to join the group. Furthermore, during meetings, most of SHG members reported that they customarily discussed personal finances. These findings raise a concern that if SHGs are perceived solely as a financial intermediary, would they be able to cater to the poorest of the women, who are hesitant to join the group due to their inability to save regularly.

## WOMEN'S POLITICAL PARTICIPATION

Political participation refers to the voluntary activities of citizens in the selection of leaders and formation of public policies. In India, both men and women have inherent right to participate in politics as it is considered an important aspect of democratic government. Our study found that the majority of women (87%) had voter cards and the majority of women voted in all *Gram Panchayat* (71%), Member of Parliament (67%) and Member of Legislative Assembly (65%) elections in the previous terms. Across the districts, amongst those women that voted, the majority (58%) reported they were not influenced by their husbands in making their decisions to vote for their candidates.

Besides voting in the general election, active political participation of women at a village level has been viewed as essential in promoting women's consciousness and development at the local level. Our study findings suggest that access to a voter's card and participation in elections did not necessarily increase the awareness as well as participation in *Gram Sabha* (or village meetings). Only 51% of women were aware of *Gram Sabha* (village meetings), and only 12% of them reported of attending at least one meeting in the previous year. Worse, even among those few attendees, 68% neither raised nor supported any issues raised by others.

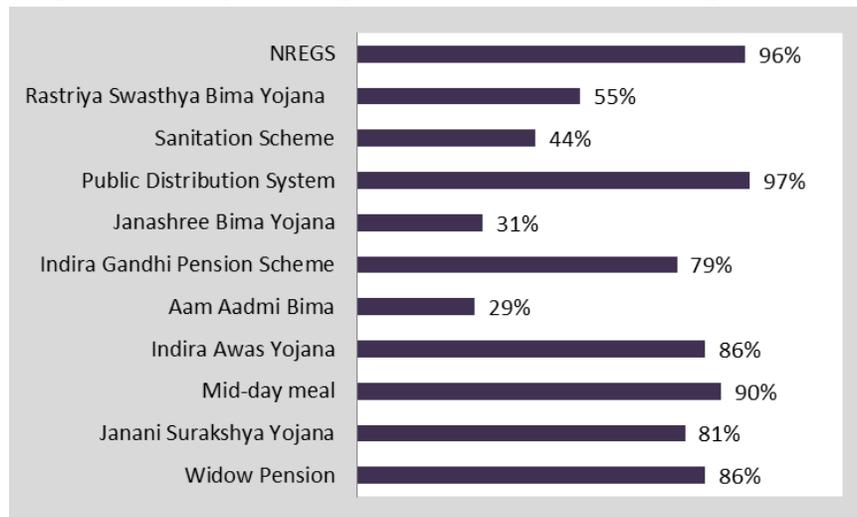
While these findings that the majority of women exercise their political rights by voting are encouraging, it is still worth mentioning that many women had not attended any local political meetings in their own villages. This brings about the argument that autonomy of women is not only about exercising their political right but also using it by actively participating in the political framework.

## PARTICIPATION IN GOVERNMENT SCHEMES

The Government of India has implemented several social security schemes to promote employment and livelihoods in rural India. One of the prominent government programmes is the National Rural Employment Guarantee Act (NREGS), an employment scheme that provides 100 days of guaranteed employment per financial year to all employment seekers in rural India. Likewise, the Public Distribution System (PDS), a scheme that operates through a network of fair price shops to maintain price stability and equitable distribution of essential commodities to consumers of weaker sections, is also popular in rural areas. The government has also provided a number of insurance and pension schemes such as *Rastriya Swasthya Bima Yojana* (RSBY), *Janashree Bima Yojana*, *Aam Aadmi Bima Yojana*, Indira Gandhi National Old Age Pension Scheme (IGNOPS), and widow pension scheme. Implemented under the purview of National Rural Health Mission (NRHM), *Janani Suraksha Yojana* aims to reduce maternal and neo-natal mortality by promoting institutional delivery amongst pregnant women. Children of rural areas are also served through a mid-day meal scheme that provides lunch to students on working days in school. All above mentioned schemes are exceptionally advantageous to the poor, and thus, our study attempts to understand if women had knowledge of them and if the eligible households had benefited from them.

Almost all women were aware of NREGS, PDS, mid-day meals, and widow pension scheme as shown in Figure 6-3. In addition, the Indira Gandhi Pension scheme was also relatively familiar amongst women. The knowledge of RSBY varied across the districts. While women of West Midnapur (West Bengal), Koraput (Orissa) and Kanker (Chhattisgarh) knew about it, women in other districts, particularly Sirohi (Rajasthan) did not know about this scheme. Except for West Midnapur (West Bengal) and to some extent Koraput (Orissa) and Shahdol (Madhya Pradesh), the sanitation scheme did not seem popular. Insurance schemes such as *Janashree Bima Yojana* and *Aam Aadmi Bima Yojana* were less known amongst women across the districts.

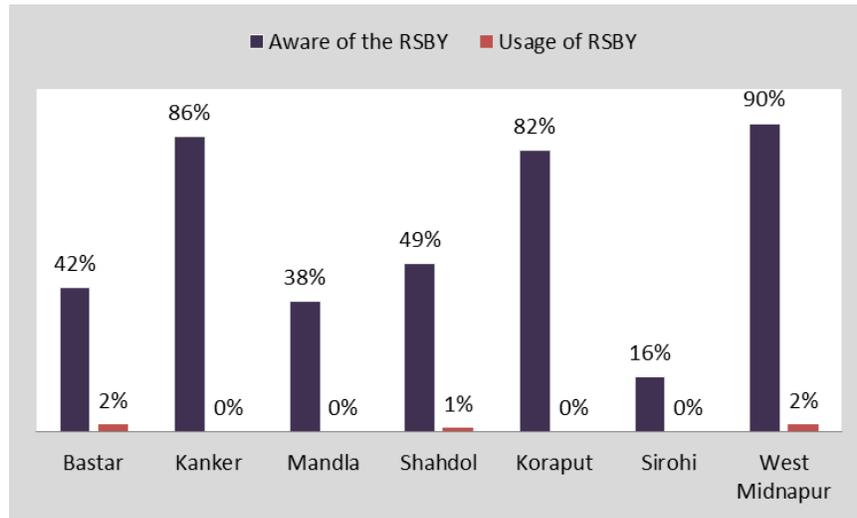
**Figure 6-3: Proportion of women that were aware of schemes**



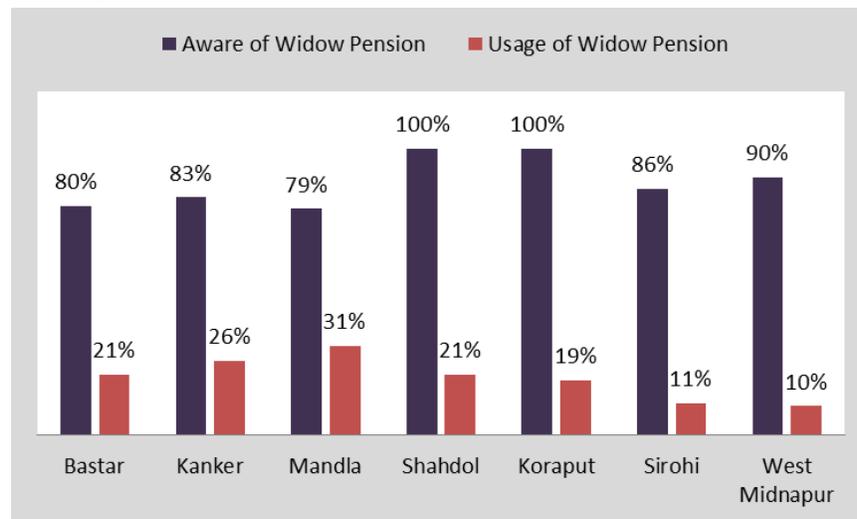
While the households' participation in NREGS (73%) and PDS (77%) was high, participation of eligible households in social security schemes was low. For example, the health insurance RSBY that is being implemented in some of these districts aggressively, as stated on its official website, was not being used by the masses (only 16% reported of using RSBY). We also queried those who visited hospitals for the treatment of any illness in the previous year, to understand if they used RSBY. As highlighted in Figure 6-4, while the level of awareness amongst such households varied across districts, hardly anyone utilized the scheme. Further research is needed to understand if respondents might actually be using RSBY but are perhaps not aware of the name of the scheme.

We further examined a sub-group of those households where at least one member was more than 65 years of age. Only 6% of such households had ever participated in any pension scheme. However, it is to be noted that the number of such households was low in our region; hence, this finding might not be the representative of the entire study area. Likewise, amongst those households that had at least one widow member within the age group of 24-64 years, the knowledge about widow pension scheme was exceptionally high as highlighted in Figure 6-5. However, less than one in three of such households had ever received the benefit of the scheme.

**Figure 6-4: Awareness and usage of RSBY amongst those households that visited hospitals in the previous year**



**Figure 6-5: Awareness and usage of widow pension scheme amongst those households that had at least one widow member**

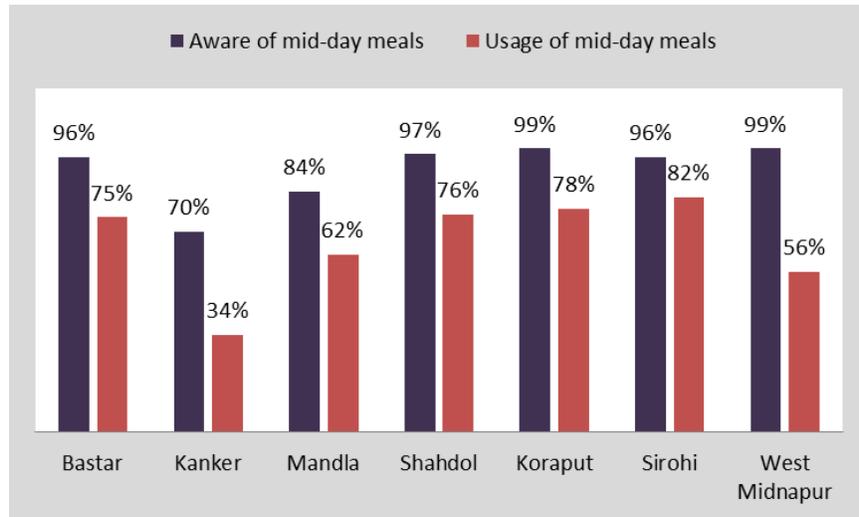


Amongst those households where at least one child was enrolled in school, almost all knew about mid-day meals, and the majority had participated as well. However, in Kanker (Chhattisgarh), even amongst such households where at least one child was going to school, the participation was low as highlighted in Figure 6-6.

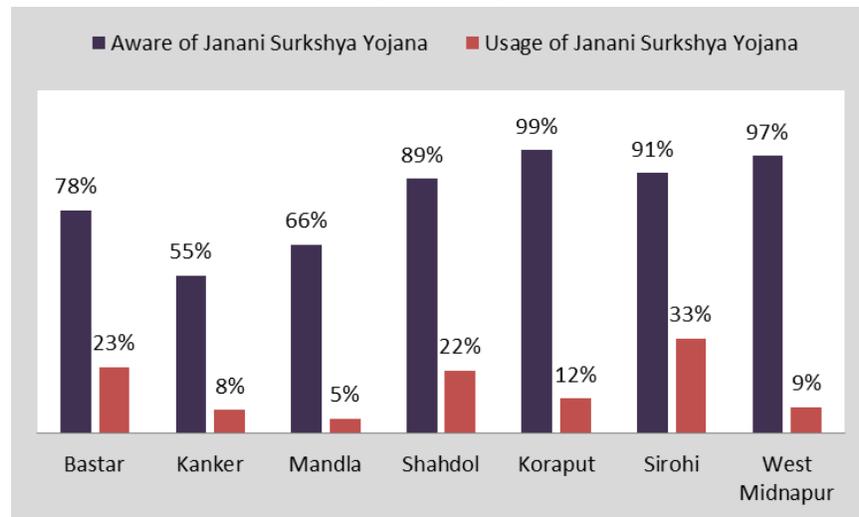
The National Rural Health Mission promoted scheme, *Janani Surakshya Yojana (JSY)*, was also widely unused in these districts. As highlighted in Figure 6-7, amongst those households where at

least one baby was born in the previous year; even though household members were aware of the scheme, not all used it.

**Figure 6-6: Awareness and usage of mid-day meal amongst those households that had at least one school-going child**



**Figure 6-7: Awareness and usage of Janani Surakshya Yojana amongst those households where at least a baby was born in the previous year**



Overall, data clearly suggests, even amongst those households that were eligible to participate, despite awareness, participation was low. Those respondents who had not participated in any of the government schemes referred to their inability to get the cards due to lack of enough documents; their belief that the government did not give work; their unawareness about the schemes; and their unavailability due to lack of time as reasons for not participating. Lastly, in all districts, women that used any government scheme rated it highly, indicating that the poor value all social security schemes provided by the government.

## PERFORMANCE OF NATIONAL RURAL EMPLOYMENT GUARANTEE SCHEME (NREGS)

Through NREGS, rural households are entitled to 100 days of employment on public works at the statutory minimum wage. According to the salient features of the scheme, any job card holding rural household can apply for employment if they are willing to do unskilled manual work. Once the *Gram Panchayat* issues a dated receipt of the written application for employment, employment is provided within 15 days, and if not, a daily unemployment allowance in cash has to be paid. In our study region, the majority of households (85%) had NREGS job cards, and 65% of those with job cards asked for NREGS jobs in the previous year. Nonetheless, not all received the requested number of workdays. Except Sirohi (Rajasthan), where the average number of workdays was 59, in other districts, the average number of workdays was less than 30. Worse, in most districts, workers were paid less than the government notified state-wise daily wages for NREGS as shown in Table 6-2.<sup>30</sup>

*Table 6-2: Average daily wage of NREGS*

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Government notified state daily wage</b>	₹ 132	₹ 132	₹ 132	₹ 132	₹ 126	₹ 133	₹ 136
<b>Average daily wage in the study region</b>	₹ 129	₹ 130	₹ 120	₹ 100	₹ 85	₹ 78	₹ 133

Findings suggest that most of those who received less than ₹ 130 did not realize that their payment was less than the standard statutory minimum wage. Another alarming result is that, except in West Midnapur (West Bengal) and to some extent Koraput (Orissa), the majority of workers did not receive their payments on time.

## PERFORMANCE OF PUBLIC DISTRIBUTION SYSTEM (PDS)

Promoted by the Government of India, and operated under the joint responsibility of the Central and the State governments, the Public Distribution System (PDS) is an Indian food security system created to distribute subsidized food and non-food commodities to the poor population through a network of public distribution shops or fair price shops. With a network of more than 5.06 lakhs of fair price shops, intended to serve more than 330 millions poor per year,<sup>31</sup> this system is considered the world's largest food distribution system. In the year 1997, the government launched a targeted mechanism (Targeted Public Distribution System) by issuing ration cards to families that fall under the Below Poverty Line (BPL) classification. In addition, to make this targeted mechanism more robust towards the poorest of the BPL families, the Government launched *Antyodaya Anna Yojana* (AAY) in the year 2000. Families that come under AAY scheme are eligible for food grains at a highly subsidized rate of ₹ 2 per kg for wheat and ₹ 3 per kg for rice, and can purchase up to 35 kg per family per month. According to the Department of Food, Civil Supplies and Consumer Affairs, all primitive tribal households are eligible for AAY scheme.

We asked women respondents if they purchased food grains or other items from PDS a month prior to the survey. The purchases of commodities varied across the districts as shown in Table 6-3.

Our findings suggest that the average purchase of food grains in all districts was less than the benchmark of 35 kg/ month. Nonetheless, it is safe to imply that Bastar (Chhattisgarh) and Kanker (Chhattisgarh) fared the best, as a larger proportion of population had access to food grains, and at the same time, they were also getting larger quantities of food grains (>30 kg/month). The Chhattisgarh Public Distribution System (Control) order, 2004, shifted the management of ration shops from private dealers to community-based organisations such as *Gram Panchayats*, SHGs and cooperatives.<sup>32</sup> It is worth

exploring if this reformation of PDS in Chhattisgarh led to the positive findings in these districts.

**Table 6-3: Proportion of households that purchased commodities from PDS in the previous month and average quantity of the commodities**

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Food grains</b>	84%	73%	50%	34%	80%	63%	97%
	35 kg	32 kg	33 kg	27 kg	27 kg	24 kg	26 kg
<b>Salt</b>	84%	59%	20%	48%	1%	6%	2%
	2 kg	2 kg	4 kg	2 kg	-	-	-
<b>Sugar</b>	80%	61%	30%	46%	48%	37%	14%
	3 kg	3 kg	2 kg	1 kg	3 kg	-	-
<b>Kerosene</b>	80%	75%	48%	69%	56%	33%	96%
	3 litre	3 litre	2 litre	2 litre	2 litre	3 litre	3 litre

## SUMMARY OF CHAPTER 6

**Low usage of banking services:** Although the majority of the households had at least one bank account, possibly due to their involvement with NRGES, none of the villages had any financial institution within the village. Almost all saved; however, they chose to keep money at home.

**Prevalence of multiple borrowing:** Multiple borrowing from the relatives, friends and moneylenders was prevalent. Respondents borrowed for household consumption; investing in farm; covering health expenses; and paying for social functions such as marriage, funerals and festivals.

**Unsatisfactory participation in SHGs:** Although many women were aware of SHGs, the participation was very low, mainly due to women's beliefs that they could not save regularly.

**Low participation in village-level political framework:** The majority of women exercised their political rights by voting, however, many were not aware of village meetings, and even amongst those that knew, many chose not to participate in any local political meetings.

**Low participation in government schemes:** Overall, women were aware of popular schemes such as NRGES, PDS, mid-day meals, and other social security schemes. While the participation in NREGS and PDS was high, other social security schemes had a low number of beneficiaries. Data suggests that even amongst those households that were eligible and aware of certain government schemes, many did not participate. Respondents reported that their inability to get cards due to the lack of documents, belief that government did not give work and unawareness about the scheme as some barriers for not participating.

**Unsatisfactory performance of NREGS:** Most had NREGS job cards, however, not all received 100 days of work in the previous year. Moreover, workers were paid less than the government notified minimum wages. In districts other than West Midnapur (West Bengal) and Koraput (Orissa), many complained that they did not receive their payments on time.



**THE WAY FORWARD**

**FOR THE BETTER FUTURE OF THE TRIBAL POPULATIONS, THE GOVERNMENT AND NON-GOVERNMENT AGENCIES NEED TO FOCUS ON PROMOTING GIRLS' EDUCATION, EDUCATING WOMEN TO LEAD A HEALTHY LIFESTYLE, ADDRESSING GENDER BASED ABUSES, AND PROMOTING ECONOMIC GROWTH OF WOMEN.**

## KEY STUDY FINDINGS

This section highlights the key findings of the overall study and based on those research findings, we recommend the initiatives that government or non-government implementing agencies could consider in the coming years. The key takeaways of the study are:

1. Many women in the region are illiterate, and many never attended schools. Even though girls are going to school, they drop out of school by the age of 13-14 years. At the same time, when it comes to investments in education, a male child has more advantages.
2. Women do not practice washing hands with soap after using the toilet, or before eating. Furthermore, they do not purify drinking water. This could be a contributing factor in the high prevalence of water-borne diseases in the region.
3. The villages do not have access to the healthcare service providers within the villages. Even today many babies are born at home, primarily attended by untrained birth attendants. Additionally, a majority of women believe that pregnant women should eat the same or less than usual during pregnancy, which raises a serious concern about the inadequate prenatal, natal, and post-natal care that a mother and her infant baby are receiving in the tribal region.
4. Women are in grave condition due to the social and economic structures. They are quietly working, starting from collecting wood from the forest; managing household chores; bearing and raising children to bringing income by working as labourers in farm or non-farm activities; yet, their contributions are not fully recognized. They neither have any status in the household, nor separate social security. They face abuses, restrictions in mobility, and wage disparity.

5. The majority of tribal populations residing in rural areas are directly or indirectly dependent upon primitive agricultural practices and forests for their livelihoods. At the same time, they make income from labour jobs in an unorganized market.
6. The current practices of agriculture in the tribal region are not economically sustainable, particularly because the yields for many agricultural commodities are low compared to developed nations. For example, the productivity of rice across the districts was lower than what the Government has estimated, and very few rice cultivators sold rice.
7. Tribal households are not engaged in non-farm enterprises, possibly because the inhabitants have limited access to alternative sources of capital, impeding any opportunity to diversify their enterprises.
8. Women perceive SHGs solely as a financial intermediary, and thus some women, who perceive they cannot save, opt not to be part of SHGs. This raises a concern if SHGs are missing their purpose of providing a community platform where women can come together to address social or community issues.
9. Tribal inhabitants have formal savings accounts; nonetheless, not all use them. One reason could be the lack of presence of bank branches within or near the villages.
10. Despite awareness about the government-promoted social security schemes, and in some cases, despite being eligible to participate in these schemes, not all inhabitants are participating in them.

## KEY RECOMMENDATIONS

While robust livelihood interventions such as a farm-based extension programme to increase the productivity and variation of crops; promotion of skill development and business trainings; and employment opportunities to improve the economic growth of households (including women) are needed in our study region; nonetheless, the design and delivery of such interventions require infrastructure, resources and the systematic involvement of local government. In our study region, we found women to be in grave condition due to the social and economic structure. For example, women do not have access to basic human necessities such as sanitation and healthy lifestyle; they face restrictions in mobility; and they tolerate domestic and economic abuses. Thus, even though women play a large role in rural development, society in general, and even women themselves, have greatly undervalued and ignored the role of women in the prosperity of their communities. Acknowledging this, IFMR has focused the recommendations on services and interventions that practitioners and policymakers could adopt in building women's self-confidence and dignity, and gradually prepare them participate in the development process.

Based on our study findings, we have selected five pressing issues pertaining to the situation of women, and focusing on these issues, we have provided recommendations, supplemented with cases and scientific evidences (these recommendations are solely made by IFMR, and not necessarily endorsed by PRADAN).

### I. PROMOTING GIRLS EDUCATION

Lately, the female literacy rate is a widely accepted proxy indicator of social development as it seeks to capture the degree of gender discrimination in the region.<sup>33</sup> By and large, the results indicate that though both girls and boys get equal opportunities to attend schools; nonetheless, gender discrimination in education still exists in rural regions. Many researchers argue that because women have fewer opportunities in the labour market,

there is a perception that they do not need a formal education, resulting in parents' lower aspirations for their daughters than their sons.<sup>34</sup> Studies indicate that many times, parents and students are not aware how much more children could earn with more schooling. A study in Madagascar concluded that providing information on returns of children's higher education is the most cost-effective programme to increase school attendance.<sup>35</sup> If parents', particularly mothers', attitudes towards their daughters' education play an important role in their daughters' future, then it is extremely important to campaign about the importance of educating the girls and its future incentives in the villages.

Many times, parents reason that girls have family responsibilities such as taking care of younger siblings or helping mothers in household chores, which was found in our study as well. To address these concerns, BRAC Schools in Bangladesh, started providing flexible schools, that run for two hours a day, six days a week and the times were set by local parents. The school calendar was also adapted to fit local considerations such as agricultural seasons etc. Today, 1.2 million students are enrolled in BRAC schools and 70% of children in non-formal primary and basic education for older children are female.<sup>36</sup> Such a model can be operated in tribal regions as well.

Additionally, evidence shows that cash and in-kind contribution to girls and families for the purpose of education has a positive impact on girls' education compared to boys. For example, there has been a dramatic rise in girls' enrollment - nearly double the national average- after the Female Stipend Programme was introduced in Bangladesh.<sup>37</sup> The Government of India's Department for the Welfare of the SC/ST/OBC/Minorities offers a number of scholarship schemes.<sup>38</sup> There are schemes such as *Balika Samridhi Yojana* (BSY) that promotes the birth of female children by providing grants to the families, and allowing a female child receives a scholarship. Information about such schemes should be provided to parents to encourage children's education, particularly girls.

Another reason why students miss classes is due to illness. According to the World Health Organization, intestinal worms are particularly concentrated among school-aged children, making them tired, malnourished and anemic; resulting in the loss of school days. Recently, academics have conducted several experiments on deworming drugs, and they have concluded that deworming programmes not only increase school attendance, but are also extremely cost-effective, buying approximately 14 additional years of education per \$100 spent.<sup>39</sup> In India, Deworm the World has been collaborating with several state governments and NGOs to run school-based deworming programmes. Local implementing agencies working in tribal regions can collaborate with the local government and Deworm the World, and run such a programme.

Lastly, to promote girls' school attendance, it is extremely important that sanitation and hygiene at schools be improved. UNICEF reports that many girls drop out of school due to a lack of latrines and safe water for drinking in schools.<sup>40</sup> It is reported that the lack of sanitation and hygiene facilities in schools has a stronger negative impacts on girls than on boys. Particularly, girls drop out of school at the onset of menstruation due to lack of toilet facilities in schools. A study conducted in Kenya to understand the effect of the provisions of water treatment and hygiene promotion showed a 58% reduction in the odds of absence for girls. The study concluded that water and sanitation improvements could improve school attendance for girls compared to boys.<sup>41</sup>

## II. PROMOTING HEALTHY LIFESTYLE

Lack of sanitation and hygiene results in huge human and economic costs, and causes gender and other societal inequalities. In our study region, almost all women reported using open air to urinate or defecate. Worse, more than half of women reported that they did not wash hands with soap after using the bathroom, or before eating. Many women did not purify drinking water. Lack of toilet facilities, presence of open ditches and

practices of unhygienic lifestyle by women creates unsanitary conditions, and causes water-borne diseases.

First, NGOs and local bodies should focus on educating women about healthy lifestyle practices. Previous findings suggest that a simple act of washing hands with soap can significantly cut the risk of diarrhea by 30-50%.<sup>42</sup> WHO reports that hygiene interventions including hygiene education and promotion of hand washing could reduce diarrheal cases by 45% and improvements in drinking-water quality through household water treatment could reduce diarrhea episodes by 39%.<sup>43</sup> If SHGs could support hand washing movement in a big way, it could significantly reduce the incidences of water-borne diseases. In India, several NGOs have already started using SHG federations to reach out to the community to create awareness about proper hygiene and sanitation. For example, in the state of Uttarakhand, a federation of SHGs developed low-cost hand wash soaps made up of soap nuts, cow-dung, apricot and orange peel. The federation promotes its product amongst its members for hand washing.<sup>44</sup>

Second, evidence shows that there are severe detrimental health impacts among girls and women due to lack of suitable sanitation facilities. The Government of India has taken an initiative to provide proper sanitation facilities to all the citizens of rural India with a goal to eradicate the practice of open defecation by 2017, through the Total Sanitation Campaign (TSC).<sup>45</sup> Our study found that the majority of respondents did not know about this government-led scheme, which is a demand-driven and community-led programme. If this scheme is available in the study region, implementing agencies could work with the local government to understand if this scheme can be implemented. Additionally, SHG leaders can be informed about these schemes so they can discuss with their *Gram Panchayat* leaders to implement such schemes in the villages.

Third, data suggests inadequate nutritional care amongst women and children. Malnutrition, due to inadequate dietary intake, is closely linked to the major causes of death and disability worldwide. Factors such as household food security, maternal and

childcare, health services and the environment also cause the malnutrition.<sup>46</sup> The study indicates that women could not make decision on purchasing food items on their own. One in three women faced food shortages and invariably skipped or reduced meals. Worse, more than half the women perceived that women should eat less than their usual diet during pregnancy, raising a serious concern about the nutritional care that a woman and her children are receiving in tribal region. While several nutrition interventions are critically needed in the region, at the same time, women need to be informed about the existing government-promoted services that provide nutritional care to women. For example, *Anganwadi* is available in all tribal villages; however, not all knew about its nutritional education service. Many were not aware that the services are made available to nursing mothers as well. At the same time, women need to be educated with repetition and persistence of messages on how the nutrition knowledge and understanding could benefit women and their families, particularly children.

Finally, implementing agencies working in tribal region should focus on the reproductive care that women are getting. While many women in our study region were aware of mechanisms to plan and prevent pregnancies, at the same time, many of those who were aware had opted for female sterilization. What is startling is that many women reported of not informing their husbands. Today, many state governments encourage women with two or more children to undergo sterilization by offering payments or other incentives. However, there are disturbing news of health workers not providing proper counseling and accurate information about contraception risk, and the sterilizations of women being done in unsanitary and unsafe conditions. We recommend further exploration of the practices adopted by health practitioners in the sterilization camps in the tribal region. It is important to understand if women are provided with adequate information about sterilizations and contraceptive risks.

### III. ADDRESSING GENDER-BASED ABUSES

One major barrier that inhibits women's health, dignity, security and autonomy is the societal tolerance towards violence against women. Research indicates that the degree of women's economic dependence is associated with the severity of the abuse they suffer.<sup>47</sup> What is an interesting finding in our study region is that, contrary to the popular belief that there is a widespread acceptance amongst married women that beating of wives by husbands is justified under some circumstances, the majority of female respondents refused to justify a man's act of beating his wife. This is an encouraging finding as it is a suitable time to raise awareness amongst women (possibly using SHGs as a platform) that domestic violence is an extreme violation of women's human rights and has serious psychological consequences for both women and children.

Some NGOs have approached both men and women to discuss domestic violence by presenting it as a crisis in the family life. The message stresses that violence at home not only affects the life of the husband and wife but also future generations. This strategy has worked, as this message does not pinpoint any targeted population, particularly men. Some interventions have tailored messages and developed materials that are meaningful to the targeted populations. For example, in order to create awareness against domestic violence amongst the rural Native Americans in USA, NGOs used native symbols such as eagle feathers that are considered sacred by the native people.<sup>48</sup> The same intervention also used radio as a medium to raise awareness of the dangers of domestic violence.

Even though the relationship between women's economic status and abuse is well established, not much rigorous evidence is found to understand women's access to finance in relation to fight against abuses. Nonetheless, experts highlight the importance of the financial products for the abused women, as these women are the ones that face negative economic consequences.<sup>49</sup> A study conducted with domestic violence survivors found women impacted by intimate partner violence are

capable of successfully saving when given the opportunity, and concluded that financial education is the key factor in improving savings outcomes.<sup>50</sup> At the same time, evidence indicates that those who benefit least from the microfinance are those who are abused within the households.<sup>51</sup> For example, in some microfinance programmes, abused women could be progressively excluded because of such programmes' strategies to target women who are easily accessible and able to repay loans. Furthermore, women's groups such as SHGs might also be unable to bear the extra work involved in contacting the most disadvantaged. Thus, while designing any women welfare programme, implementing agencies need to design a strategy that ensures the participation of the most disadvantaged women.

#### **IV. PROMOTING ECONOMIC GROWTH OF WOMEN**

Experts argue that if the outside option for women improves (e.g. improvement in the labour market opportunities for women), the intra-household allocation of resources to women may also improve. Achieving women's economic growth requires sound public policies, a holistic approach and gender-specific interventions.

The government has acknowledged the critical role of women in sustainable development and thus provides alternatives and opportunities to women that can improve women's options outside the household through several schemes, such as National Rural Livelihood Mission (NRLM). Such community-driven livelihoods intervention operates on the principle of women taking control of the development process, resources and decision-making authority. A study conducted in Bihar analyzing how women are participating in such a scheme found that provisions of well-designed interventions do not guarantee participation.<sup>52</sup> The study highlighted that women's cultural beliefs, perceived opportunity cost of the intervention, and handholding support women receive from the implementing agencies directly influence women's decision to participate in economic development process. Thus, local government and non-

government agencies could play a key role in informing women about such programmes and encourage them to participate.

Research has indicated that formal savings products could help women save more effectively, which in turn help women's economic activities.<sup>53</sup> Today, many state governments have adopted the default savings options by mandatorily delivering all wages to participants of government schemes and programmes through formal savings accounts. Additionally, government allows SHGs to mobilise savings. Despite these efforts, institutional savings by women in India is low. Thus, service providers can provide savings products that have been tested in other countries to enhance savings behavior. For example, an experiment found that commitment savings products and default savings options may help reduce frivolous and temptation spending.<sup>54</sup> Another study found that for clients who may be inattentive to savings needs, or are overly optimistic about their future savings, specific reminders associated with expenditure are effective.<sup>55</sup> For example, in Peru, clients who received specific reminders (such as saving for children's education) to save resulted in increased savings by 6% compared to those who received no reminders. Comparatively, non-specific reminders (such as asking women to save without any specific goal) had no significant impact on savings.<sup>56</sup> Studies also show that the adoption of the product only increases if there is a strong relationship between the client and the channel used for information dissemination. For example, a study found that an endorsement by trusted local NGOs increased the use of a financial product by 10%.<sup>57</sup> Thus, service providers can design the savings products that are compatible with the savings needs of women and take advantage of the relationship with existing SHGs to deliver and market the savings products.

Lastly, all state governments in India have been assisting their citizens in cases of unemployment, old age, sickness and disablement by transferring cash to households that come under Below Poverty Line (BPL). The government also provides some social security schemes targeting women. Our results found that women's participation in the above mentioned women-oriented schemes was minimal. Women cited their inability to get cards

due to lack of enough documents, and their belief that government does not support them as reasons for not participating in these schemes. Thus, government and non-government implementing agencies can inform women about the benefits of such schemes, and encourage women leaders to work with the local government to implement the schemes in their villages.

## V. INVOLVING WOMEN IN FARM INTERVENTION

Previous studies have indicated that women's empowerment in agriculture is positively associated with per adult equivalent calorie availability and dietary diversity.<sup>58</sup> In our study region, women had no agriculture-related financial decision autonomy despite their active engagement in farming. Nearly no women had their names included on the land title deed. Development experts have acknowledged that inequality in participation between men and women manifests itself in lower agricultural productivity, food insecurity and reduced rural economic development. In India, both governmental and non-governmental bodies are targeting women from marginal families as the beneficiaries as well as an important part of the decision-making bodies of farm-related extension programmes. Yet, despite women being actively engaged in farm work, and government's rigorous efforts to introduce innovative agriculture initiatives that women could adopt, the adoption has not been satisfactory. Constraints to the adoption of innovation involve factors such as a lack of credit; limited access to information; aversion to risk; inadequate farm size; inadequate incentives; insufficient human capital; lack of labor; and chaotic supply of complementary supply.<sup>59</sup> At the same time, decisions to adopt any farm intervention are influenced by the degree of handholding support they receive from the implementing agencies. For example, in Bihar, Bihar Rural Livelihoods Project (BRLP) is aggressively promoting its System of Rice Intensification (SRI) amongst SHG members. A study found that a woman who is frequently visited by Resource Persons assigned by the Project is three times more likely to re-apply the technique compared to the one who is not visited.<sup>60</sup> Thus, we recommend that any livelihoods promotion programme invest on

enhancing the quality of Resource Persons who would provide technical support to women farmers. Such Resource Persons should be provided with robust trainings, capacity building support and timely remuneration to encourage the performance.

Second, in our study region, the majority of farmers reported the usage of indigenous seeds for cultivation. The survey did not directly verify the source of the seeds, but most likely, these seeds came from previous stock of produce. Progressive farmers, particularly women, could be identified and trained for developing and supplying high quality seeds. These women farmers could help establish seed banks that cater to the local needs. At the same time, in our study region, the use of chemical fertilizers was found to be below the state and national averages. Increasing fertilizer usage to recommended levels will help farmers increase yields substantially. However, indiscriminate and unbalanced fertilizer application can lead to soil salinity and destruction of soil quality.<sup>61</sup> On a pilot basis, implementing agencies can support soil testing and test-based fertilizer application for farmers or SHG members in several *Panchayats*. NGOs working in the tribal region can start an initiative to help interpret the soil test reports (or soil health cards). Most of the time, soil test reports are sent to farmers directly and they are not aware of the interpretation. Department of Agriculture has come up with the manual for the interpretation of the soil test. NGOs can partner with the local Department of Agriculture and Cooperation to understand how soil test reports are interpreted, and provide support to farmers for soil interpretation and implementation in the region.

# ANNEXURE

**Annexure 1-1: District-wise proportion of workers as per Census Data 2011**

<b>Total Workers (Rural)</b>	<b>India</b>	<b>Bastar</b>	<b>Kanker</b>	<b>Mandla</b>	<b>Shahdol</b>	<b>Koraput</b>	<b>Sirohi</b>	<b>Midnapur</b>
<b>Persons</b>	41 %	53 %	54 %	55 %	50 %	53 %	43%	43%
<b>Male</b>	53%	58%	59%	58%	56%	57%	51%	59%
<b>Female</b>	30%	49%	48%	53%	45%	49%	34%	27%
<b>Main workers</b>	70%	51%	72%	56%	44%	53%	72%	58%
<b>Marginal workers</b>	29%	49%	28%	44%	56%	47%	28%	42%
<b>Literacy rate</b>	68%	50%	69%	65%	64%	43%	50%	78%
<b>Male</b>	77%	62%	79%	77%	75%	55%	66%	86%
<b>Female</b>	58%	39%	59%	54%	53%	32%	33%	70%

**Annexure 1-2: District-wise household characteristics**

	<b>Bastar</b>	<b>Kanker</b>	<b>Mandla</b>	<b>Shahdol</b>	<b>Koraput</b>	<b>Sirohi</b>	<b>Midnapur</b>
<b>Male HOH</b>	99%	93%	95%	98%	98%	97%	92%
<b>Avg age of HOH</b>	39 yrs	43 yrs	39 yrs	39 yrs	37 yrs	41 yrs	48 yrs
<b>Avg age spouse</b>	34 yrs	37 yrs	35 yrs	34 yrs	32 yrs	36 yrs	38 yrs
<b>Family size</b>	5 ppl	6 ppl	5 ppl	5 ppl	5 ppl	5 ppl	6 ppl
<b>Religion</b>	Hindu: 97%	Hindu: 98%	Hindu: 94%	Hindu: 98%	Hindu: 98%	Hindu: 98%	Hindu: 98%
<b>Caste/ Tribe</b>	Madia 54%	Gond 63%, Halba 18%	Gond: 74%	Gond: 28%, Pav: 15%, Baigya: 13%	Gadba: 28%, Paraja: 23%, Rana: 23%	Garasiya: 40%, Bheel: 15%	Advasi: 50%, Santal: 13%
<b>Caste category</b>	SC: 4% ST: 82% OBC: 13 %	SC: 6% ST: 80% OBC: 14 %	SC: 2% ST: 81% OBC: 16 %	SC: 7% ST: 68% OBC: 21 %	SC: 13% ST: 51% OBC: 24 %	SC: 8% ST: 79% OBC: 8 %	SC: 18% ST: 64% OBC: 7 %
<b>Primary language</b>	Halvi : 58% Gondi: 36%	Chhattis : 63% Gondi: 29%	Hindi: 58% Gondi: 41%	Hindi: 99%	Deshia: 97%	Sthaniya Marwari: 92%	Santali : 62% Bengali: 35%

**Annexure 3-1: Knowledge of Anganwadi service and its functions**

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Aware of Anganwadi</b>	89%	87%	92%	97%	98%	54%	98%
<b>Anganwadi workers visit homes</b>	68%	66%	61%	55%	72%	71%	40%
<b>Go to Anganwadi</b>	71%	75%	55%	54%	74%	51%	60%
<b>Satisfied with Anganwadi</b>	72%	55%	43%	46%	60%	49%	81%
<b>Raised issues</b>	3%	3%	1%	6%	5%	0%	6%
<b>Anganwadi provides supp nutrition</b>	82%	99%	99%	98%	93%	95%	99%
<b>Provides Immunization</b>	53%	55%	82%	88%	79%	94%	41%
<b>Provides health checkup</b>	25%	27%	24%	44%	66%	28%	15%
<b>Provides preschool education</b>	12%	6%	22%	56%	75%	45%	22%
<b>Provides nutritional education</b>	3%	12%	7%	20%	27%	6%	1%
<b>Anganwadi for children below 6</b>	90%	98%	99%	99%	99%	80%	99%
<b>For pregnant women</b>	58%	72%	92%	93%	83%	89%	72%
<b>For lactetic mother</b>	22%	6%	74%	47%	69%	59%	7%

**Annexure 3-2: Health, Hygiene and Sanitation**

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	West Midnapur
<b>Adult female fetching water</b>	91%	90%	93%	92%	90%	90%	96%
<b>Fetching time (&lt; 30 mins)</b>	80%	86%	81%	97%	93%	85%	95%
<b>Sources of drinking water</b>	Tube well (72%) Open well (15%)	Tube well (84%)	Open well (38%) Tube well (35%) Public Tap (21%)	Open well (76%) Tube well (21%)	Tube well (56%) River, canal, lake, pond (30%)	Tube well (53%) Open well (40%)	Open well (45%) Tube well (42%)
<b>Do not purify water</b>	53%	89%	30%	59%	67%	50%	78%
<b>Boil water</b>	2%	2%	0%	1%	10%	0%	1%
<b>Usage of cloth</b>	28%	4%	64%	40%	24%	48%	17%
<b>Open air toilet</b>	99%	98%	99%	83%	97%	83%	98%
<b>Hand wash after bathroom</b>	42%	31%	14%	6%	15%	41%	20%
<b>Hand wash before eating</b>	14%	7%	5%	1%	9%	22%	6%
<b>Top 3 health concerns</b>	Fever (43%) Chest Pain (14%) Stomach problem (12%)	Weakness body pain (31%) Fever (23%) Blood pressure and TB (20%)	Weakness body pain (27%), Fever (28%) , Stomach pain (17%) Blood pressure, TB (18%)	Fever (43%) TB, malaria (18%) Weakness body pain (16%)	Fever (69%) Stomach pain, headache, Typhoid (19%) Diarrhea, malaria (10%)	Fever (51%), Weak body pain (19%)	BP, TB, malaria (29%), Period problems (19%) Body pain stomach pain (15%)

**Annexure 3-3: Reproductive practices**

	<b>Bastar</b>	<b>Kanker</b>	<b>Mandla</b>	<b>Shahdol</b>	<b>Koraput</b>	<b>Sirohi</b>	<b>West Midnapur</b>
<b>Child birth last year</b>	18%	17%	11%	13%	15%	25%	10%
<b>Home delivery</b>	68%	44%	51%	38%	59%	40%	27%
<b>Untrained birth attendant during delivery at home</b>	84%	83%	81%	91%	87%	89%	79%
<b>Food consumption during pregnancy</b>	More (19%) Same (40%) Less (41%)	More (14%) Same (48%) Less (38%)	More (15%) Same (52%) Less (32%)	More (8%) Same (29%) Less (62%)	More (36%) Same (31%) Less (32%)	More (30%) Same (45%) Less (25%)	More (45%) Same (22%) Less (33%)
<b>Awareness of pregnancy prevention methods</b>	84% (Female Ster – 63%, pills 29%, Male Ster 18%)	93% (Female Ster – 92%, pills 25%, Male Ster 18%)	91% (Female Ster - 65%, pills 48%, rhythm method – 27%)	99% Female Ster 98%, male Ster 93%, pills 66%)	95% (Female Ster 91%, male Ster 83%, pills 76%)	86% (Female steriliza- tion, Pills 76%, injections (39%)	100% (Female steriliza- tion 93%, pills 88%)
<b>Used any pregnancy prevention</b>	47%	53%	44%	61%	45%	17%	71%
<b>Discuss with spouse</b>	64%	19%	14%	53%	50%	34%	87%
<b>Top pregnancy prevention method</b>	Female Steriliza- tion (64%)	Female Steriliza- tion (85%)	Female Steriliza- tion (79%)	Female Steriliza- tion (77%)	Female steriliza- tion (76%)	Female steriliza- tion (60%)	Female steriliza- tion (58%)

**Annexure 4-1: Proportion of farmers that used the types of seeds, fertilizers and pesticides for paddy cultivation**

		Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	Midnapur
<b>Seeds</b>	<b>Desi</b>	91%	62%	94%	72%	84%		87%
	<b>High Yield</b>	8%	34%	5%	24%	4%		11%
	<b>Hybrid</b>					12%		
<b>Fertilizers</b>	<b>Usage</b>	83%	88%	52%	86%	75%		98%
	<b>Organic</b>	54%	0%	26%	72%	8%		7%
	<b>Inorganic</b>	7%	31%	49%	15%	57%		22%
	<b>Both</b>	40%	35%	22%	12%	34%		71%
<b>Pesticides</b>	<b>Pests</b>	34%	53%	54%	53%	49%		87%
	<b>Problems Usage</b>	31%	49%	17%	35%	45%		87%

**Annexure 4-2: Purchase of seeds and fertilizers**

	Bastar	Kanker	Mandla	Shahdol	Koraput	Midnapur	
<b>Purchase of agricultural inputs</b>	Seeds: 9%	Seeds: 25%	Seeds: 5%	Seeds: 30%	Seeds: 11%	Seeds: 26%	
	Fertilizer: 23 %	Fertilizers: 60%	Fertilizers:3 4 %	Fertilizers: 27 %	Fertilizers:6 5 %	Fertilizers: 93%	
	Irrigation 2%	Irrigation: 7%	Irrigation: 2%	Irrigation: 2%	Irrigation: 8%	Irrigation: 15%	
<b>Costs of seeds for one acre of land</b>	Rs 536 for Rice	Rs. 497	Rs 421 for Rice	Rs 1,532 for Rice	Rs 614 for Rice	Rs. 84 for Millet	Rs 825
<b>Quantity of fertilizers for one acre of land</b>	101 kg/ acre for Rice	44 kg/acre	26 kg/ acre for Rice	41 kg/ acre for Rice	22 kg/ acre for Rice	16 kg/ acre for millet	60 kg/ acre or 149 kg/ ha
<b>Costs of fertilizers for one acre of land</b>	Rs. 804 for Rice	Rs. 1314	Rs. 561 for Rice	Rs. 935 for Rice	Rs. 1,090 for Rice	Rs 1,087 for millet	Rs. 1,591
<b>State-wise estimated Consumption as per the Govt data</b>	94 kg/ha	94 kg/ha	81 kg/ha	81 kg/ha	58 kg/ha	168 kg/ha	
<b>Consumption of fertilizers in the study region</b>	89 kg/ha	108 kg/ha	52 kg/ha	101 kg/ha	54 kg/ha	186 kg/ha	

**Annexure 4-3: Crops sale**

		<b>Bastar</b>	<b>Kanker</b>	<b>Mandla</b>	<b>Shahdol</b>	<b>Koraput</b>	<b>Sirohi</b>	<b>Midnapur</b>
<b>Paddy</b>	HHs that sold	23%	32%	7%	8%	4%	-	30%
	Average quantity	515 kg	1,020 kg	272 kg	345 kg	264 kg	-	359 kg
	Price	Rs. 10/kg	Rs. 12/kg	Rs. 9/kg	Rs. 10/kg	Rs. 10/kg	-	Rs. 9/kg
	Average Income	Rs. 5,150	Rs. 12,240	Rs. 2,448	Rs. 3,450	Rs. 2,640	-	Rs. 3,231
<b>Maize</b>	HHs that sold	3%	5%	1%	-	2%	7%	-
	Average quantity	379 kg	1,804 kg	97 kg	-	380 kg	2,334 kg	-
	Price	Rs.6/kg	Rs. 10/kg	Rs. 12/kg	-	Rs. 7/kg	Rs. 10/kg	-
	Average Income	2,274	Rs. 18,040	Rs. 1,164	-	Rs. 2,660	Rs. 23,340	-
<b>Millets</b>	HHs that sold	1%	-	1%	-	6%	-	-
	Average quantity	34 kg	-	78 kg	-	71 kg	-	-
	Price	Rs. 6/kg	-	13/kg	-	Rs. 12/kg	-	-
	Average Income	Rs.204	-	Rs. 1,014	-	Rs. 852	-	-
<b>Oilseeds</b>	HHs that sold	2%	-	3%	-	18%	12%	-
	Average quantity	23kg	-	50 kg	-	70 kg	1001 kg	-
	Price	Rs. 7/kg	-	Rs. 26/kg	-	Rs. 47/kg	Rs. 58/kg	-
	Average Income	Rs. 161	-	Rs. 1,300	-	Rs. 3,290	Rs. 58,058	-
<b>Wheat</b>	HHs that sold	-	-	2%	1%	-	6%	-
	Average quantity	-	-	220 kg	75 kg	-	675 kg	-
	Price	-	-	Rs. 12/kg	Rs.11/kg	-	Rs. 14/kg	-
	Average Income	-	-	Rs. 2,624	Rs.825	-	Rs. 9,450	-
<b>Vegetable</b>	HHs that sold	-	-	2%	1%	15%	1%	2%
	Average quantity	-	-	58 kg	92 kg	568 kg	600 kg	70 kg
	Price	-	-	Rs 6/kg	Rs. 11/kg	Rs. 10/kg	Rs. 29/kg	Rs. 11/kg
	Average Income	-	-	Rs 348	1,012	Rs. 5,680	Rs. 17,400	Rs. 770

		Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	Midnapur
<b>Others</b>	HHs that sold					Medicinal Plant 12%	Fennel Seed 7%	
	Average quantity					58 kg	578 kg	
	Price					Rs. 233/kg	Rs 70/kg	
	Average Income					Rs. 13,514	Rs. 40,460	
	HHs that sold					Cashews 9%		
	Average quantity					133 kg		
	Price					Rs. 83/kg		
	Average Income					Rs. 11,039		
	HHs that sold					Almonds 2%		
	Average quantity					259 kg		
	Price					Rs. 27/kg		
	Average Income					Rs. 6,993		

#### Annexure 4-4: Collection and selling of forest based produce

	Bastar	Kanker	Mandla	Shahdol	Koraput	Sirohi	Midnapur
<b>Top 3 forest produce collected</b>	Leaves	Leaves	Leaves	Mahua	Leaves	-	Leaves
	Neem	Mahua	Mahua	Leaves	Mango		Mushroom
	Mahua	Char	Char	Tori	Cashews		Mahua
<b>Top sold products</b>	Mahua	Leaves	Leaves	Leaves	Cashews	-	Mahua
		Mahua	Mahua	Mahua			Leaves
		Char	Char	Mustard			
<b>Knowledge about Forest Rights</b>	18%	9%	25%	38%	25%	15%	56%
<b>Received Ban Adhikari Patta</b>	4%	27%	4%	15%	4%	2%	3%
<b>Aware of any forest conservation efforts</b>	21%	30%	37%	25%	37%	3%	51%

# REFERENCES

- 
- 1 C.J. Sonowal, 2008. Central of Social Exclusion and Inclusive Policies,  
2 Tata Institute of Social Sciences, [Indian tribes and issue of social inclusion and exclusion](#)  
3 National Institute of Rural Development, Ministry of Panchayati Raj,  
4 [A note on the backward regions grant fund programme](#)  
5 Press Information Bureau, Government of India. Ministry of Home Affairs  
6 [Districts covered under Security Related Expenditure \(SRE\) Scheme](#)  
7 UK Mail Online article, 2013  
8 [Six of the world's seven billion people have mobile phones but only 4.5 billion have toilets](#)  
9 World Bank, Poverty Reduction and Equity, Poverty Analysis, Measuring Poverty,  
10 [Defining Welfare Measures](#)  
11 Government of India, Planning Commission, [Press Notes on Poverty Estimates, 2011-12](#),  
12 July 2013, Table 1 , Page. 5  
13 UNICEF, World Health Organization. [Diarrhoea: why children are still dying and what can be done](#)  
14 Government of India, Planning Commission, State Government of Orissa,  
15 [Human Development Report, Orissa 2004](#)  
16 Bloomberg News, [Women in India targeted for Sterilization in population fix](#)  
17 Human Rights Watch, July 2012, [India: Target-driven sterilization harming women](#)  
18 Bloomberg Business week, June 2013, [Inside India's female sterilization camps](#)  
19 Phansalkar, Sanjiv, Verma, Shilpa, 2004, Economic and Political Weekly Improved Water Control as  
20 [Strategy for Enhancing Tribal Livelihoods practices](#)  
21 Reserve Bank of India, Circular, RBI/ 2007-2008/330, RPCD. No. PLFS BC 72  
22 [Union Budget-2008-09- Agricultural Debt Waiver and Debt Relief Scheme](#)  
23 Department of Agriculture and Cooperation, National Informatics Centre [Rice in India, a status paper](#)  
24 Department of Agriculture and Cooperation, Ministry of Agriculture, Page 270 Government of India,  
State of [Indian Agriculture 2011-12](#)  
Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India  
[The Contingency Plan for all districts of India.](#)  
UNDP Report (2012), Recognition of Community Rights under Forest Rights Act in Madhya Pradesh and  
[Chhattisgarh, Challenges and Way Forward](#)  
Chhattisgarh State Minor Forest Produce (Trading and Development) Co-operative Federation  
[Nationalized Minor Forest Produce](#)  
Chhattisgarh State Minor Forest Produce (Trading and Development) Co-operative Federation Ltd.  
[Auctions/ Tender Notice](#)  
Madhya Pradesh State Minor Forest Produce, Trading and Development Cooperative Federation Ltd.  
[Tendu Patta](#)  
Orissa Forest Development Corporation, Products, [Kendu Leaves](#)  
Labour Bureau, Ministry of Labour and Employment, Government of India,  
[Wage Rates in Rural India \(2009-2010\)](#)  
Press Information Bureau, Government of India, Ministry of Labour and Employment ,  
Implementation of [National Floor Level Minimum Wage](#)  
Gulati, Ashok, Jain, Surbhi, and Satija, Nidhi. 2013. Discussion Paper no. 5,  
Commission for agricultural costs and prices, Department of Agriculture and Cooperation,  
Ministry of Agriculture, ""Rising farm wages in India- [the Pull and Push factors](#)

- 
- 25 Fernandez, Marilyn. "Domestic Violence by Extended Family Members in India  
Interplay of Gender and Generation." *Journal of Interpersonal Violence* 12 (1997). 18 Mar. 2013.
- 26 World Bank. *World Development Report, 2012, Gender Equality and Development*, ISBN: 978-7-302-29916-5
- 27 Luz, Luciana, Agadjanian, Victor. 2012. Centre for Population Dynamics  
Arizona State University, [Women's decision-making autonomy and children's schooling in rural Southern Mozambique](#).
- 28 Chayal, K, Dhaka, B.L, Poonis, M.K., Tyagi, V.S. and Verma, S.R. 2013.  
[Involvement of farm women in decision-making in agriculture](#)
- 29 International Labor Organization, [Remuneration for women's work: A curious paradox](#)
- 30 National Rural Employment Guarantee Act, Government of India  
[State wise notified wages for MGNREGA \(Rs./ day\)](#)
- 31 Department of Food and Public Distribution, Ministry of Consumer Affairs,  
Food and Public Distribution, [Targeted Public Distribution System \(TPDS\)](#)
- 32 Puri, Raghav. 2012. *Economic and Political Weekly*, Volume XLVII No 5.  
[Reforming the Public Distribution System: Lessons from Chhattisgarh](#).
- 33 United Nation, [Social Indicators](#)
- 34 Duflo, Esther. 2011. The National Bureau of Economic Research, NBER Working Paper  
[Women's Empowerment and Economic Development](#)
- 35 Nguyen, Trang. 2008. Information, Role models and perceived returns to education.  
[Experimental evidence from Madagascar](#).
- 36 UNICEF Report, 2005. [Strategies for girls' education](#)
- 37 Khandker, Shahidur R., Mark M. Pitt, and Nobuhiko Fuwa, 2003,  
[Subsidy to promote girls' secondary education: the female stipend program in Bangladesh](#).
- 38 Government of India, Department for the Welfare of the SC/ST/OBC / Minorities.  
[Scholarship Schemes \(2013-14\)](#)
- 39 J-PAL Policy Bulletin. March 2012. [Deworming: A best buy for development](#)
- 40 UNICEF, Water, Sanitation and Hygiene, [Water, sanitation and hygiene in schools](#).
- 41 Freeman, M.C., Greene, L.E., Dreibelbis, R., Saboori, S., Muga, R., Brumback, B.,  
and Rheingans, R. 2012. [Assessing the impact of a school-based water treatment, hygiene and sanitation programme on pupil absence in Nyanza Province, Kenya](#)
- 42 Fewtrell, Lorna, and Joh M. Colford, Jr. 2004 The World Bank Report.  
[Water, sanitation and hygiene: interventions and diarrhea. A systematic review and meta-analysis](#)
- 43 World Health Organization, Water, Sanitation and Health (WSH).  
[Water, sanitation and hygiene links to health. Facts and figures](#). 2004.
- 44 Solution Exchange, an initiative of UN country team in India.  
Environment and Water Community. [Role of SHGs in promoting hand-washing experiences](#).
- 45 Government of India, Central Rural Sanitation programme, Total Sanitation Campaign,  
June 2010. [Guidelines](#)
- 46 World Health Organization (WHO), Malnutrition  
[Maternal, newborn, child and adolescent health](#)
- 47 Sanders, C. K. 2011. National Online Resource Center on Violence against Women.  
Asset Building Programs for Domestic Violence Survivors
- 48 National Resource Center on Domestic Violence. Cangleska, Inc. and South Dakota  
Coalition against domestic violence and sexual assault. [Raising public awareness on domestic violence in Indian Country](#)

- 
- 49 Sanders, C. K. 2011. National Online Resource Center on Violence against Women.  
Asset Building Programs for Domestic Violence Survivors
- 50 Sanders, Cynthia K. 2010. Centre for Social Development  
[Savings outcomes of an IDA Program for survivors of domestic violence.](#)
- 51 Linda Mayoux, [Microfinance and the empowerment of women.](#)
- 52 Kc, Deepti and Kalrav Acharya. 2014.  
[Increasing women's participation in community based livelihoods intervention](#)
- 53 Dupas, P and J Robinson. 2010. *NBER*, Working Paper No. 14693.  
[Savings constraints and microenterprise development: evidence from a field experiment in Kenya'](#)
- 54 Karlan, Dean, and Jonathan Murdoch. 2009. Financial Access Initiative  
[Access to Finance: Ideas and Evidence The Economics of Saving](#)
- 55 Karlan, Dean, Margaret McConnell, Sendhil Mullainathan and Jonathan Zinman, 2011  
Getting to the Top of Mind: [How Reminders Increase Saving](#)
- 56 Mullainathan, Sendhil and Eldar Shafir. 2009. Financial Access Initiative  
[Savings Policy and Decision-making in Low-Income Households](#)
- 57 Cole, Shawn, Xavier Giné, Jeremy Tobacman, Petia Topalova, Robert Townsend, and  
James Vickery. 2010. [Barriers to household risk management: evidence from India.](#)
- 58 Malapit, Hazel Jean, Suneetha Kadiyala, Agnes R. Quisumbing, Kenda Cunningham, Parul  
Tyagi. 2013. IFPRI Discussion Paper 01313.  
Women's empowerment in agriculture, production diversity and nutrition. Evidence from Nepal
- 59 Feder, Gershon, Richard E. Just and David Zilberman,  
Economic Development and cultural change, 1985.  
Adoption of Agricultural Innovations in Developing Countries: A Survey
- 60 Kc, Deepti and Kalrav Acharya. 2014.  
[Increasing women's participation in community based livelihoods intervention](#)
- 61 Government of India, [Ministry of Agriculture State of Indian Agriculture 2012-13](#)