

11.

Annexure

A : Perspectives of Adivasi leaders, activists, scholars, social workers and intellectuals

About this section:



This section is based on the interviews with eminent personalities who are well-known in their respective areas of expertise and have particular views about the issues of Adivasis. In most cases, they belong to the Adivasi society and are actively involved in addressing the issues in their own ways. While selecting the interviewees a combination of maximum variation purposive sampling and a snowball or chain sampling (Patton 1990:182-183) was followed. The diversity was captured through an initial set of traits such as age, gender, tribe and professional background, political belief. An underlying hypothesis was that one could expect multiple and often conflicting perceptions, opinions and experiences across these traits.

Altogether 40 respondents were chosen – 20 each from the state of Jharkhand and Odisha; 37 are Adivasis. Among

those, majorities were from three tribes – Santhal with 11 respondents, Oraon - nine respondents, and Munda — eight respondents.

Three interviewees were from the Gond community. Apart from that, there was one interviewee each from Bhuiyan, Ho, Kandha, Pahariya, Paraja and Korwa community. There were 22 male and 18 female respondents.

As far as age is concerned, 18 of the interviewees were middle-aged followed by 14 youth and 8 veterans.

Respondents were from various occupational groups. However, most of them were community leaders or social activists. The names and a small introduction for each of the interviewees is given below:

S N	Name	Profession/expertise
1	Anil Gudiya	Tribal leader, Gram Sabha Manch
2	Anuj Lugun	Working as Assistant Professor at School of Indian Languages, Central University of South Bihar (CUB)
3	Archana Soreng	Member, Youth Advisory Group on Climate Change (established by the Secretary-General, United Nations)
4	Ashish Tigga	Journalist
5	Balabhadra Majhi	Political leader, MLA and former Minister for Tribal Welfare in the Government of Odisha
6	Biju Toppo	Film maker
7	Bitiya Murmu	CEO, Lahanti (CSO)
8	Chakradhar Hembram	Former Zilla Parishad member; State Joint Secretary of Biju Janata Dal(BJD), looking after tribal and minority affairs; former-Wildlife Warden, Department of Forests and Environment, Government of India; Forest & Environment activist; General Secretary, AISDCA (All India level Adivasi organization or would you like to give full form?))



S N	Name	Profession/expertise
9	Chami Murmu	Feminist activist and environmentalist
10	Dasari Mantri	Chairperson, Block Panchayat Samiti, Banspal
11	Dayamani Barla	Activist and political leader
12	Dr Nirad Chandra Kanhar	Tribal leader and veterinary doctor
13	Dr. Bipin Jojo	Academician
14	Dr. Sona Jharia Minz	Vice-Chancellor, Sidho Kanhu Murmu University Professor of Mathematics, JNU
15	Dr. Debasis Mardi	General Secretary, Biju Janata Dal, former Chairperson of Special Development Council, Mayurbhanj; Medical doctor
16	Father Nicholas Barla	Human rights activist; has represented India at UN meetings on indigenous issues
17	Grace Kujur	Poet; former Director of All India Radio
18	Gunjal Munda	Assistant Professor at the Central University of Jharkhand; social and cultural activist
19	Jacinta Kerketta	Poet
20	Jawra Pahariya	Community leader
21	Jyotsna Sheela Dang	Journalist at Prasar Bharti
22	Kanhai Singh	Tribal leader, Forest rights activist
23	Kariya Munda	Politician and the former Deputy Speaker of the 15th Lok Sabha, former Minister in the Government of India
24	Kiranbala Naik	Former Chairperson of Panchayat Samiti, Patna block (2007-2012), BJP State Executive member
25	Kumudini Banra	Academician
26	Laxmidhar Singh	Secretary, All India Ho Language Action Committee
27	Manik Chand Korwa	Tribal youth leader
28	Meri Marandi	Community leader
29	Mary Bina Surin	Currently Senior Manager Tata Trusts, Bhubaneswar; Ford Foundation Fellow; former Senior Manager, Odisha Tribal Empowerment & Livelihoods Programme (OTELP); former Regional Programme Manager, Heifer International, India
30	Akay Minz	State Programme Coordinator, National Health Mission, Department of Health, Government of Jharkhand
31	Narayan Murmu	Odisha Administrative Service (retired); former Programme Administrator, Integrated Tribal Development Agency, Kendujhar, Odisha
32	Ranendra Kumar (IAS)	Director, Dr. Ram Dayal Munda Tribal Research Institute, Ranchi; scholar and writer (fiction and non-fiction)
33	Sebati Singh	Founder Ideal Development Agency (IDA), Kendujhar, Odisha; worked on issues of sexual exploitation of tribal girls in mining areas; child rights, and livelihoods.
34	Shiv Sankar Mardi	Ho language teacher; political activist

S N	Name	Profession/expertise
35	Shiwani Murmu	Community leader
36	Simon Oraon	Environmentalism; Padma Shree awardee
37	Sukeshi Oram	Former Chairperson TRIFED; Member, National Commission for Women; President of BJP Mahila Morcha, Odisha
38	Sumani Jhodia	Anti-liquor activist, Kshipur block, Rayagada district, Odisha
39	Tulasi Munda	Educationist; Padma Shree awardee
40	Umi Daniel	Aied et Action International

In Jharkhand, interviews were conducted face to face in Ranchi, Dumka, Simdega, Gumla, LITIPARA and Palamu. The interviews in Odisha could not be conducted face to face due to the second wave of the Coronavirus pandemic. In the online interviews, respondents were from Keonjhar, Mayurbhanj, Sundargarh, Phulbani and Mumbai.

With each respondent, an hour to hour-and-half long interview was undertaken. With the prior consent of the interviewees, the interviews were recorded. Subsequently, these interviews were translated and transcribed and subjected to content analysis. The transcriptions were further clustered under various analytical categories that emerged from the interviews and an overall trend, the similarities and differences within these categories were then analysed.

Are Adivasis different from non-Adivasis?



Adivasis are different from non-Adivasis in terms of their worldview. The worldview includes their perspectives about their life and ecosystem. It also includes the basic principles that structure their social relationships within the family, with their neighbourhood, own community, other communities, governance systems, gender relations or coping strategies.

Though various respondents shared various things, two aspects were mentioned by all: (1) non-hierarchical and mutual or symbiotic relationship among themselves and with all other elements and creatures in nature and (2) togetherness and sense of community.

Both these aspects are reflected in their language, dance, songs, paintings, livelihood practices and other aspects of their life. Akay Minz said, "Folklores and folksongs of

the Adivasi have taught them to love their water, forest and land; not to destroy those." Adivasi religious rituals basically connect them to nature and give them the reason to celebrate together. Anuj Lugun said, "The relation of Adivasis with the jungle is to live together. It is not about supremacy or about control." Archana Soreng said, "Every [Adivasi group] in Orissa, irrespective of language, culture and tradition, identify themselves as Adivasis. One thing that acts as a binding factor across all the communities here is the land and forest."

Human values like mutual support, collaboration and cooperation are the integral parts of their society. Not only in villages, one can see these in towns, universities, offices. Adivasis are more comfortable in groups, working in groups, helping each other. Biju Topno said, "If one wants to build a house, the entire village would help in building the house. If one wants to lay a thatch, everyone would come together to lay it. Everyone would together get wood and bamboo from the forests and then will make the house. The same happens during the transplantation. However, this is changing gradually."

This mutual help can be observed also in the form of offering food, clothes, shelters to the needy people in the community. On the contrary, the non-Adivasi have hierarchical worldview, where human beings are supreme and all other elements of nature are manipulated to serve the human species who among themselves are competitive and individualistic.

Most respondents added that Adivasis have their distinct communal identity and they prioritise communal wellbeing over individual progress. They are, in general, honest and trustworthy; they do not engage in the act of stealing, robbery and fraud.

Adivasis are reluctant to assert or come forward to claim benefits. For example, in a mixed population village,



electricity, drinking water, etc. will reach the Adivasi hamlet at last. They are less aggressive and persuasive. One of the respondents shared his observation that in the Indian Hockey team there were several Adivasis, but most of them were defenders; strikers were generally non-Adivasis. These attitudes are most of the time interpreted as laziness and foolishness by the non-Adivasis, said one of the interviewees.

A few of the interviewees, while differentiating Adivasis from non-Adivasis also talked about rituals such as 'bride price', which is given by a groom's family to the bride's family during the marriage. This is unlike dowry system in the non-Adivasi society, in which bride's family has to give dowry to groom's family in order to get their daughter married in that family. Some of them also mentioned 'bride price' as a progressive practice.

While talking about how both Adivasis and Dalits have been marginalised by the caste society, Sonajhariya Minz said, "Both Dalit and Adivasis were subjected to deprivation whereas Dalits were oppressed and Adivasis were marginalized. Adivasi went into isolation and stayed in isolation and suffered deprivation and marginalization. Dalits lived on the fringes of the villages and were oppressed by high caste, given inhuman treatment."

Are the two worldviews of Adivasis and non-Adivasis gradually coming closer? Well, most respondents do not think so! The majority of the respondents opined that Adivasi culture was changing because of domination of the non-Adivasi worldview which is accepted by the society at large as superior. This domination has been accelerated through the process of development and modernisation (we have talked about this later in the chapter). One of the respondents mourned that these two worldviews should have tried to understand each other and learn from each other, instead of one killing the other. The domination by the non-Adivasi has been traced back to the time of *Mourya* empire (320 BCE) by one respondent. Kautilya's Arthashastra has mentioned the small states of Tribes called *Gana-sangha* ruled by Tribal assemblies and it also suggests how to deal with those sanghas, through various injunctions and manipulating the noble leaders.

However, some respondents hold another view which claims that Adivasis and non-Adivasis have been learning from each other for a long time, and it is difficult to say who has influenced whom. One of the respondents, Karia Munda said, "There was one more distinction that Adivasis worship nature and their lives are dependent on nature. In many cases, Hindus also worship nature, but make them

into idols of different names, like Varun, Agni. There are some differences and similarities in prayers and rituals but it is difficult to say who had influenced whom."

The extent of change in culture, beliefs and values varies from tribe to tribe. One person said that the tribes like Gond and Bahtudi have assimilated with the mainstream society (non-Adivasi) whereas a few tribes are still rooted in their old traditions. Gond and Bathudi tribes practice idol worship and follow Hindu deities, whereas most of the other tribes practise both animism and totemism.

Gunjal Munda said that mixing with non-Adivasis, even if wanted, would not be so easy. He recalls, "In my school, no one said that some of us were different because we were Adivasis, but it was visible automatically. The Adivasi children would sit on one side and the others on the other, this was the case in the playgrounds too". Mary Surin attributed this to language, "There is a communication gap between Adivasis and non-Adivasis - the major challenge is the language". According to her Adivasi dialects and languages are hardly understood by non-Adivasis and this creates distinction from early childhood.

Are all Adivasi groups similar?

There are 32 different Adivasi groups in Jharkhand and 62 in Odisha. Some are called major tribes because they are large in numbers; such as Santhal, Oraon, Munda, Kandh, Kharwar, Gond, etc. The major groups are mostly dependent on settled agriculture and forest gatherings for their livelihoods. Whereas the smaller groups are artisans; some of the smaller groups practise shifting cultivation. One respondent mentioned that a middle class among Adivasis has gradually emerged in the cities. These comprise academicians and government officers including people working as officers/managers in public sector banks.

Some respondents see the heterogeneity in the following aspects:

- Adivasis in central India are divided into two major language families – Dravidian (e.g. Gond, Kurukh) and Austroasiatic (e.g. Santhal, Munda).
- Rituals, songs, dress, dance vary among these Adivasi groups.
- Adivasis are divided into three categories according to their religious beliefs. A section of the population follows the older traditions, another section is Christian and a third section is tilted towards

Hinduism. "The literacy percentage is higher among the Christians because when people got converted, they were given the opportunity in modern education. Others, on the other hand, were introduced to modern Education much after the independence of India," said Karia Munda. Others too shared similar views.

- There is some discrimination even within an Adivasi group in terms of which clan was the first one to come to a particular village. Those who came later have lower social status in that village as compared to the ones who came first.

However, the common thing that makes them one group is that they live in harmony with nature. The collective ethos that all the Adivasi groups uphold through their collective actions in agriculture or collecting forest produce, dancing and singing together, etc., is another common trait among Adivasis. Non-hierarchy has also been mentioned as a common value among various Adivasi groups.

However, Karia Munda says, "We have several different *samajs* (society) like Oraon, Munda or Santhal *Samaj*. This category of Tribe or Adivasi is made from the administrative point of view." Bitiya Murmu also said similar things - "Intermingling was not encouraged earlier due to territoriality of tribes. So, eating together or inter-marriages were discouraged". Within some tribes, there are issues of untouchability, as mentioned by some respondents. Mundas are considered untouchables by Bhuiyans in Odisha. Bhuiyan tribe does not eat food served by the Munda community. If someone from the Bhuiyan community visits any Munda house they would change their clothes before entering back to their own house. Similarly, the Gond tribe would avoid feasting together with the Juanga tribe.

Though all said that Adivasi was not a homogeneous category, many of them said that as far as political issues were concerned, Adivasis, especially in Jharkhand, remained united, by and large. These political issues are related to access and control over forests, land rights, resistance against land acquisition, demanding separate Adivasi columns, etc. In all these incidents they tried to portray one identity as Adivasi. "Jharkhand movement happened because we could go beyond the factional identity and connect to the larger identity as Adivasis," said Biju Toppo.

There are differences between men and women within the household, though women in Adivasi society enjoy more freedom compared to non-Adivasi women in non-

Adivasi society, according to the respondents. This aspect is discussed in chapter on Women in Livelihoods.

Throughout the report we have used the term Adivasi, tribe and ST interchangeably to denote all the people who belong to different Adivasi groups.

Does the new generation hold this worldview?

Interviewees mostly said that the new generation does not fully own this worldview. Exposure to the cities, modern technology and mainstream education are seen as the drivers of this change.

The younger generation of Adivasis, in most cases, do not speak in the Adivasi language, which is the carrier of the Adivasi worldview. Gunjal Munda said, "There is a perceived prestige associated with non-Adivasi languages. Therefore, speaking Adivasi languages does not seem to be prestigious". Nowadays almost every family has smartphones which are playing a major role in shaping young minds. Hindi or English is the medium through which contents are conveyed on the phone. So, the inferiority complex related to the Adivasi language is penetrating. Further, the Adivasi languages are not getting a space in formal education or in offices. People are ought to switch over to non-Adivasi languages and with that, the basic values are also eroding.

The modern education system promotes individualism and competition which is another reason for the erosion of the Adivasi value system. It is also a reason for reduced interest in learning their own language. The texts and the teaching involve mostly non-Adivasi language. Even if anyone is interested in learning the language, there will hardly be any scope. Apart from Santhali, no other Adivasi language comes under the scheduled languages of India.

However, another section of interviewees shared that the Adivasis needed to change and adopt a few things from the mainstream (non-Adivasis). One of them says that Adivasis have to be educated through the formal education system otherwise in a changing world they will face more deprivation. Kiranbala Nayak said, "Adivasi should adopt the entrepreneurial mindset of non-Adivasis. Adivasis must strive to assimilate with mainstream society to keep up with the larger development process. But this assimilation process must not be forced upon the Adivasis; instead, it should be voluntary."



The transition is leaving the Adivasis in between – from a situation where they used to depend fully on nature for their daily life to a situation in which they are dependent on mainstream materials, knowledge and systems. But, the mainstream cannot afford to provide all that is needed by the Adivasis. Mary Surin said, “they [Adivasi] are being advised to take modern medicines when they lack hospital facility, connectivity to reach the hospitals and inability to pay for the medicine. At the same time, they are not fully dependent on their traditional system of medicine, which they have started to doubt being so much influenced by the external world.”

Declining access to forest

All respondents shared that due to various historical reasons Adivasi villages were set up in and around forests and therefore forest is the lifeline of Adivasi communities. Their agriculture is thus shaped by the presence of forest in the upper catchment. A variety of food come from the forest and at the same time the fertility of the farmland and conservation of water also is greatly facilitated by the existence and quality of the forest. A good forest always meant good agriculture. Therefore, Adivasis always wanted their forests to be diverse and protected. The way Adivasis gather forest produce ensures perpetual forest rejuvenation. They collect the *Kandhmool* (tubers), but leave the root system intact so it grows again. They collect dried branches; not the green ones. Adivasis also collect construction material from the forest, but its quantity is regulated by their village panchayats.

Adivasis have a spiritual connection with the forest. A part of the forest is considered a sacred abode of God/Goddess.

The interviewees clearly mentioned that the Adivasis are the preservers and protectors of forests. Two of them also said that at times the illegal felling of trees takes place with the help of some Adivasi villagers. Though these Adivasi villagers get a very small amount of money in return, because of their involvement in this matter the administration and forest department, many a time, blame the Adivasis for felling.

Nevertheless, almost all said that forests are conserved by Adivasi people and not by the forest department. The forest department is governed by ‘consumerist’ perspectives. The trees which provide food, fodder, fuel, medicine and many other things essential for Adivasis to sustain their lives are cut by the forest department through a system called *Koop Katai*. These are then replaced with trees of commercial (timber) value. The new trees which

are being planted in the forests are not indigenous to these regions and may destroy the ecological balance. Due to the depletion of natural flora, animals such as elephants enter the residential areas in search of food. Sumani Jodhia regrets, “The composition of the forest has been changed a lot. Earlier we used to get forest products like honey, bamboo, sal seeds etc but nowadays we are not getting all these from forests. Earlier we used to get medicinal plants for fighting Malaria but it's not available these days. We used the bark of trees to treat malaria. Earlier there were sambar deer, barking deer, spotted deer, peacock etc in our forests. After the intervention of industry, the rapid destruction of forests, mining has caused the extinction of indigenous natural flora and fauna.”

Under the administration of forest department, villagers have lost their full access and right to the forest. Though the Forest Right Act, 2005, gives access rights to the Adivasis, the same are not implemented on the ground.

Some interviewees further said that the Individual Forest Right (IFR) is creating further divisions in Adivasi society. It is promoting individualism and weakens the collective ethos. Jyotsna Sheela Dyang narrated a story – “The community-based forest rights have not been provided in large scale, particularly in the Adivasi areas of Jharkhand. There was a programme for celebrating the completion of one year tenure of the Jharkhand government, in which I was the emcee. When I was announcing the names for *vanpatta*, I saw that many individuals came to receive it on stage. It was awarded by the state government to individuals and not to the entire villages or communities. After a month of this programme, I went to talk to the Adivasi people who received individual *vanpatta*. To my surprise, I saw that individual *vanpatta* received by one or two families were kept as a secret from the rest of the village. These schemes by the government are damaging the integrity, unity and community-based feelings in the Adivasi people. It can even be seen that individuals who are receiving *vanpatta* are aligned to a particular political party.”

There are provisions for Community Forest Rights (CFR); the administration shows huge reluctance to give CFR. Adivasis who do shifting cultivation in jungle believe that lands belong to their community. Once a family is given Individual Forest Rights (IFR), it's expected by the administration that this family will do farming there only. But, as a traditional practice, farmers shift to other plots for greater productivity and crop rotation. IFR restricts this. Many villages applied for community forest rights and *patta* and even if those were sanctioned, in reality, those were only rights for conservation. Villagers did not

have any right of using and rejuvenate the forest as per their needs. All the interviewees said that if acts were implemented in their true spirit, it would transform the lives of Adivasis. Moreover, if forest land is acquired for other development purposes, the cultivators won't get any compensation. In the case of CFR, such issues won't arise.

Disappearing traditional knowledge and skills

Because of their close connection and dependence on nature, Adivasi people possess intricate knowledge about its conservation. This knowledge and skill has helped them in hunting animals and gathering food, fodder, fuel, medicine from the forest. Their knowledge of the farm-forest ecosystem has helped them to maintain soil fertility in their farmland by channelling humus-rich rainwater from the forest to the farmlands and using forest produce for crop protection.

They have a deep knowledge of natural cycles and seasons and their agricultural practices are guided by those. They are conscious of regenerating flora and fauna. The custom of *shikar* (hunting) is prohibited during the breeding season; their practices of harvesting forest produce help regeneration; the custom of shifting cultivation rejuvenates soil. Part of this knowledge has been transformed into Adivasi art, literature or folk tales, said one of the respondents.

However, loss of access to forests and more dependence on chemical-based agriculture has made this knowledge redundant, opined many interviewees. This knowledge is oral and transferred through songs, folklores, etc. As the young generation progressively forgets the Adivasi language, this knowledge is also on the verge of extinction. Moreover, in the modern education system, there is no place for traditional knowledge.

Modern farming practices make Adivasis more vulnerable

Adivasi agriculture is changing its character. Earlier Adivasis used to cultivate as per their consumption needs. Both agriculture and forest used to play a vital role in Adivasi livelihoods. With declining access to the forest, agriculture has got affected to a great extent. Further, as animal herd size is shrinking in Adivasi areas, cow dung is becoming scarce to be used as manure.

In this situation, a small section of interviewees said that the Adivasi farmers have learnt chemical and modern technology-based agriculture in order to increase production and income from their farmlands. They need access to capital, knowledge and advanced technology in order to reap the benefit of chemical-based agriculture. Merry Surin said, "Adivasi way of doing agriculture is the traditional way they have been doing agriculture. But, with time the technology has come in. If they are introduced to technologies that reduce their hassle, they will adopt them. Modern agriculture has brought benefits to them. The only change which has been negative with the change in technology or the modern mode of agriculture is the use of pesticides."

However, the majority of the interviewees do not think this is a solution. According to them, chemical-based modern agriculture will destroy the soulful relationship with land and soil. Through modern agriculture, promoted by extension workers of Govt. and NGOs, one or two crops are replacing a wide range of locally suitable nutritious crops. Many varieties of local paddy, millets are rare or totally extinct now. This is making Adivasis more vulnerable in an agro-climatic zone where rainfall is too erratic. However, this section of respondents also critiqued the Government's effort to convert Adivasis as organic producers and take their products to cities for urban people's consumption. They think that rather than teaching Adivasis about organic farming, Government and NGOs should learn sustainable farming from the Adivasis.

Another group of interviewees expressed that a middle path needs to be taken. Farm mechanization and irrigation systems are needed for Adivasi areas, but, the use of pesticides and fertilizers are of deep concern to the same group of respondents. Two interviewees mentioned the System for Rice Intensification (SRI) introduced by NGOs as a boon to the Adivasis.

Some mourn about the loss of pleasure they used to derive from agriculture. In the monsoon season, they used to enjoy the beauty of rain, ploughing and singing together while working on the fields. Presently, machines have replaced community-based farming. "The joy one felt with each raindrop is put aside by new technologies," says Manikchand Korwa.

Individual land ownership has also been identified as one of the reasons for declining community-based farming practices. In the late 19th century and early 20th century, during the land settlement, individual ownership was externally imposed by surveyors who didn't have any idea



about tribal conventions of community ownership of land by the clans.. Since then, commented one interviewee, the sense of community ownership of land is fading away.

The household targeted government schemes are also seen as responsible for the decline of community-based farming. Such approach has benefited only a few, and has created the tension in the village. The *Pancha* system through which Adivasi villagers used to work in each other's fields to share labour has now become defunct as some villagers have many tools and they can manage without any assistance from other villagers, explained Bipin Jojo.

'Development' projects made things worse for Adivasis

The development efforts in terms of mining, dam construction or even modern agriculture have been seen by most of the interviewees as processes responsible for making Adivasis more vulnerable. Due to massive mining works in parts of the Central Indian Plateau, land quality is getting deteriorated. The flora and fauna of the place are also getting damaged because of mining. The Adivasis had no option but to work as labourers in mines or migrate to cities in search of unskilled jobs. Huge forests were also destroyed for mining. This has also impacted Adivasi livelihoods.

In fact, many said that the modern development paradigm had affected the Adivasi society. The collective ethos is decreasing as a result of the individual-centric approach of Government programmes and schemes. The traditional social justice system of Adivasi society has been replaced by modern systems such as gram sabha, police and court; but those did not take into consideration the Adivasi values and Adivasis still cannot consider these as their own.

Adivasi villages have been highly regarded for their cleanliness. Recently, toilets were constructed in Adivasi villages under Swachh Bharat Mission (SBA) in such a way that there was no proper sewerage system. This made their village unclean, says one of the interviewees.

Further, dowry system has started creeping in Adivasi society due to its exposure to other non-Adivasi communities in towns, use of smartphones, internet and TV. Earlier, living together (*dhuku*) was an accepted custom; but now marriage is more accepted and those customs are looked down upon.

Development has been described by Bipin Jojo as a clash of the two worldviews. The world view of modernity is considered superior to the Adivasi worldview. This notion leaves no room for exchanging views and learning from each other. Dayamani Barla said that the old concept of a village as a unit is getting diluted by the formation of smaller groups like SHG within the village. Bitiya Murmu said, "Leaving our values behind and moving forward in the name of development will be dangerous for our society." Sonajhariya Minz said, "I would like to say that perhaps the health condition of those who have tried to preserve the Adivasi food habits is better from those who were deprived of this kind of food habit."

However, a few interviewees, such as Meri Marandi and Shiwani Murmu also said that the modern development system brought some good changes as well, such as awareness about alcoholism and reducing the Mahajan Pratha. Some held views that the development process should continue. Kiranbala Nayak said, "I will say that we are nature admirers, tribes are nature admirers, we have distinct culture and tradition. Still, Adivasi community should learn from mainstream society to acquaint itself with the other society as Adivasis cannot stay in forests forever; worship nature forever; or draw the sustenance from forest produce alone forever. She opined the need for an arrangement to assimilate Adivasi with mainstream society. Government interventions should reach every marginalized Adivasi population. We, as the Adivasi community, cannot be a part of development if we would not mix with them."

Forced Migration

Adivasi people mostly depend on forest, agriculture and allied activities for livelihoods. However, this cannot give them food and income for the entire year. Generally, Adivasi youth migrate to big cities in search of jobs and exposure to the outer world. This migration starts at the age of 14 to 16, without acquiring any skill. Most of them start their career as unskilled labour and remain so until they reach their 40s when they stop migrating. Anuj Luun sees this as a larger capitalist process for producing cheap labour. He said, "We need cheap labour who will be in our control and work. So, the Adivasis and their lands were considered not the best for doing agriculture. This is a big discourse if we want to go deep into it."

Narayan Murmu says, "Actually whoever has studied till 9-10th standard are not engaged in agricultural activity and instead migrate as wage labourers. From my area

alone, boys who fail matric, move to Surat, Bangalore, some become security guards. They need some money to sustain agriculture as well. They move out seasonally, come back and spend the money earned on agricultural operations. This is not true that they have already forgotten agricultural operations. As far as vegetable cultivation is concerned, irrigation facility does not exist in our areas. Without irrigation, vegetable cultivation is not done properly. Even if we do, Adivasi areas do not have marketing, cold storage and transport facilities."

While describing the process of industrialisation in Adivasi area, Sumani Jodhia said, "The establishment of industry created employment opportunities for educated people. People are coming from Bhubaneswar, Jajpur, Delhi for jobs whereas our indigenous people are still unemployed. At the same time, the establishment of industry and mining sites has destroyed our forest. Where would we make the forest again? The bauxite mining and all are going on for a while polluting the river – which is a major source of water for us."

A similar view was expressed by Bipin Jojo, "The Adivasi youth from the industrial fringe areas are neither illiterate nor properly educated. So, neither do they want to go back to their parental occupation like agriculture nor can they get a job in the industry or office. As they do not even have the required technical training or skills to get some industry or some government/private job. Given the kind of materialistic aspiration they now have, they find it best to go to either Mumbai or Karnataka, Tamil Nadu, Kerala, Maharashtra, Goa or Delhi."

Umi Daniel said, "Government has not provided adequate options to them. The government said you go and join skill development training. At the skill development centres, young people are taken away from the regular schooling and higher education and pushed into the cheap labour." However, Tulasi Munda thinks that skill-building is necessary along with school education. She said, "Every work today is done with machinery. Suppose there is a construction of a pond, 100 people used to earn a livelihood from that, but now one machine does the work for one pond. Earlier, several people were engaged in road works, but now even that is done by machines. So, after being educated too, many Adivasi people need training and because of lack of training, they won't get work. It is the days of machines."

A large number of Adivasis migrate every year from Odisha, Jharkhand, Bihar, West Bengal, etc. One interviewee mentioned a recent study done by the Ministry of Adivasi Affairs, in four states - Jharkhand,

Madhya Pradesh, Chattisgarh and Orissa, which shows that in Odisha, out of every 10 Adivasi households, from nine households at least one member migrates. There are incidents of trafficking both from Jharkhand and Odisha.

Akay Minz said, "A lot of problems come with migration. From a village in Raidih block of Gumla district of Jharkhand, boys used to go to Gujarat for work in the diamond cutting centres in Surat and girls to Mumbai. One doctor at CHC was tracking these people and asked them to get tested before going and upon returning to the village. He tracked them for two years. When they left everyone was fine; but when they returned five of them were HIV positive: three men and two girls. Also, people who migrated for road construction and mining in Uttarakhand, developed lung-related problems."

Unfair market

Markets used to be and still are a place for socialisation and cultural exchange for Adivasis. Many marriage relations used to initiate from the marketplace. The market also used to be a place for the exchange of news. Most respondents said that the Market was gradually becoming alien to the Adivasis. Anuj Lugun said, "Formal markets have ruined the traditional haat which was a cultural exchange place aside from commerce."

Fr. Nicolas Barla said, "post-1990 most of the transactions started happening through money - fully replacing the traditional barter system. Adivasis are still not adept at negotiating the price of their products and selling them at a price that the customer and traders (usually Non-Adivasis) offer. These markets are now controlled by middlemen and non-Adivasi traders. These unfair markets are the grounds of exploitation of Adivasis."

Education

Teaching in a language other than the mother tongue is identified as a major hinderance in the education of Adivasi children. Adivasi children find it very challenging to study with medium of languages other than their own. Government schools have failed so far in Adivasi areas, language has remained the main barrier for the children to learn. Bipin Jojo said, "I am for local language or mother tongue to be used at primary level, whether it is Kui, Mundari or Santhali or Sundargarhi or Sambalpuri. I think that helps in comprehension. And gradually you can bring in other languages. But for comprehending the concept,



it is better to teach a child in his or her mother tongue.” This is visible in the missionary schools where teachers are recruited from local areas, they speak in Adivasi languages, unlike the government teachers. Jyotsna Sheela Dyang said, “The teachers in the government schools mainly belong to the non-Adivasi areas. Whereas the teachers in the missionary schools are locals. They connect very well with children. Education creates awareness about the conservative rules and the superstitions within the society; even it creates political awareness.

The school and college curricula also don’t have any relation to Adivasi life and culture. Hence it does not resonate with Adivasi students. Almost 70% of school dropouts among Adivasis are from class 1st to class 10th. Adivasi culture and values should be part of school curricula, said many respondents.

Mid-day meal schemes function irregularly due to frequent outages of stocks. Teachers remain absent or they do not teach and do some other works. Schools remain shut.

According to one respondent, through the government skill-building programme, a pool of cheap labour is getting created among the Adivasis. He gave examples of the private security agencies or the garment factories where these skilled Adivasi people are getting employed with low remuneration and unhygienic working condition. However, the majority said that Adivasis have to be imparted technical skills so that they keep pace with the technological advances and grab opportunities. Otherwise, they will be further deprived in a technology-driven world.

Women’s position in Adivasi society

Although women are better placed in the Adivasi community as compared to the women in non-Adivasi communities, the Adivasi societies in Central India are patriarchal. The manifestation of patriarchy is different in Adivasis society; however, it is getting more and more influenced by mainstream societies.

While expressing how Adivasi women are in a better position, respondents gave several examples. Adivasi languages do not segregate based on gender. Adivasi society has no taboo accepting girls who had eloped or were raped, unlike the non-Adivasi societies. Adivasi men have no issue marrying girls who are more educated than them. Adivasi women do not have to observe *Purdah*.

The mobility of Adivasi women in the market and other places is not restricted. In the case of marriage, the girl’s consent is necessary. Widow remarriage in Adivasi society is a socially accepted practice. Ranendra Kumar said, “In patriarchal society, motherhood is glorified but women are demeaned. In Adivasi society, the female body is not highlighted rather their brains and hearts are given importance. This is also the philosophy of feminism.”

Women participate in livelihood activities, and in most cases do most of the household work. But, there are some other restrictions on Adivasi women — like, they are barred from undertaking roof thatching, ploughing, holding an arrow, etc.

Women do not have ownership rights on ancestral land. They have either a right to manage the land and its produce or the right to get a share of the produce of the land in certain circumstances. Most of the interviewees think that women should have land rights. Women do not participate in the traditional governance system, in general. Witch-hunting is another practice that is still rampant in Adivasi villages.

Some interviewees also consider women’s huge workload as a manifestation of gendered discrimination. Akay Minz said, “In Adivasi communities, women have so much freedom. The women can be bread earners of the household; but isn’t that an exploitation? She is a bread earner, she is a homemaker, she also tends to children, so it has gone from positivity to negativity.” Shivani Marandi said, “Women from non-Adivasi groups do not have to opt for job or work because the men in the household look after the financial matters. Whereas, Adivasi women are forced to go outside to seek work. Our men drink alcohol and remain at home. So, this is a good thing about non-Adivasi people.”

Women generally do not own land. And some respondents said that this practice is for saving lands from going out of the clan’s ownership. Most respondents think that women need to have land rights and ownership to become financially independent. The Chhotanagpur Tenancy Act and Santhal Pargana Tenancy Act recognise traditional inheritance laws of Adivasi. As these traditional laws are not written, the oral interpretation given by male patriarchs in the village is followed depriving the women. Women also do not participate in the traditional local governance system.

Some interviewees identified Self Help Group (SHG) as a key factor towards women empowerment in the Adivasi areas. Women are now sitting in village meetings. They

can comfortably talk to the bankers and police without any fear. With the help from SHGs, Adivasi people are getting loans. Meri Marandi said, "If I were not a part of a women self-help group, I would not have received this kind of education. Earlier, women would stay shy in their own groups. Now, with the introduction of Mahila Mandal, people are now generating change in the society. So, this has been a huge boost to our community now. Also, people are now more aware of their land rights and protest to save their rights. I am sure that more and more changes will happen like it is happening presently." Chami Murmu said, "Earlier only men used to make decisions about the rituals and everything, but today women are also sitting in the groups and discussing relevant issues. They are given recognition for their suggestions. Women are also elected in different developmental committees."

However, an interviewee said that women are getting further depoliticised because of the state-sponsored Self Help Group (SHG) programme. Women now do not want to participate in any discussion related to displacement, rights violations, etc.

Most of the interviewees said that violence against women is less in Adivasi society as compared to mainstream society. Dowry related violence is almost absent among Adivasis. However, witch hunting – an extreme form of violence against women exists in Adivasi society. Many interviewees said that witch-hunting happens with those women who have got ancestral property.

Conclusion

Since independence, government and non-government organisations have been working towards the well-being of Adivasis. On the other hand, dispossession and displacement have continued to be major issues facing Adivasis. Mainstream development programmes have failed to recognize the socio-cultural distinctiveness of this group and have followed the 'one shoe fits all' approach. Manik Chand Korwa said, "Development should meet the needs and perceptions of the Adivasi people. Progressive acts such as PESA or FRA needs to be implemented in the right spirit. Adivasis' dependence on forests for livelihoods can be further strengthened by regulating prices of non-timber forest produce. At the same time, quality education can provide more opportunities for the younger generation and help them get remunerative and dignified employment in the cities."

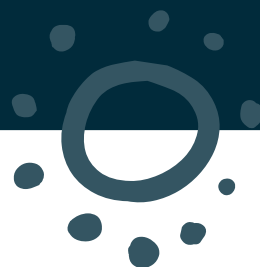
In designing developmental interventions, the questions raised by Dayamani Barla are quite insightful – "What kind of developments and investments shall we do? Is it to save the water bodies? Are we going to conserve our water bodies? Or to save our traditional and agricultural systems, shall we invest? Or shall we invest to save our language and culture? How are we going to save the language and culture of this region when we are unable to save our land and rivers?"





Annexure

B : Salient points made in Focus Group Discussion



Issues relating to Adivasi identity and homogeneity



The youth shared that though their interaction with the external (largely non-Adivasi) world has increased, they were cognizant and proud about their distinct Adivasi identity. They were also of the opinion that mainstream culture is yet to influence the Adivasi culture. In this regard, they were of the opinion that low education and hence low exposure was in some sense acting as a safeguard in this regard. The youth focused on three cultural traits: religious festivals, music and attire. With respect to festivals, they shared that while festivals like *Poush Parav* and *Kali Puja* were celebrated by both non-Adivasi and Adivasi communities, there were festivals like *Sarhul* and *Bandana* which are exclusive to Adivasi community. According to the group while they do participate in different festivals, their attachment and enjoyment were most for festivals like *Sarhul*. The use of traditional musical instruments like *Dhamsa* was still a compulsory part of the marriage rituals, and most of the youth are familiar with such instruments. With regard to attire, the women pointed out that though there was mixing of styles, but the traditional way of wearing a sari still continues. The traditional style of painting on house walls was vibrant. Other dimensions of culture they discussed were the music, the various musical instruments and the dance forms of the different Adivasi communities.

But some members also accepted that changes are taking place in the society – albeit at a slow rate. The general interest in attending one's festivals was waning among youth. Some Adivasi youth are exploring fusion between tradition and modernity. One participant remarked, "we are transforming and modernising our traditional dance performances like the *Pata*, *Bhuwang* and *Jawa dance*". The participants shared that the aspirations for clothes

with the modern design was increasing among the youth, and was constrained mainly by low purchasing power. Overall, the participants were of the opinion that while change had slowly set in, they were proud of their distinct Adivasi culture and they would try to adhere to it in all circumstances. Educated Adivasi youth are becoming aware that some undesirable practices such as child marriage must be given up, even though they are as per the Adivasi customs.

While the youth proudly shared the various distinct traits of their culture, they also agree that society is changing. One such aspect that was talked about was the dress. According to one respondent, "clothes we wear today, like jeans, pants, were not worn by the elders. Traditionally the attire included *panchi*, *padhar*, dhoti which are slowly eroding and new fashionable clothes are replacing them. The new generation is getting attracted towards fashionable clothes and our traditional clothes are being mocked somewhere." The group was unanimous that now popular DJ-music-in-marriage practice does not belong to the Adivasi culture.

Another youth group proudly articulated three distinguishing attributes in the Adivasi society that are still prevalent: intimate relationship with nature, gender equality as far as marriage is concerned and the intra-community dispute resolution mechanism. As was shared by one respondent, "we have various festivals across seasons and each of the festivals is in some way linked with nature." Another respondent added, "irrespective of the work in which people of our community are engaged in, at the end everyone will be back to their village and will engage in activities that are directly linked with '*jal*, *Jangal* and *Jameen*'. The youth pointed that in a marriage in Adivasi society, both the boy and the girl can exercise their agency as long as they are not marrying within their clan. Also, there is no prevalence of dowry system in

Adivasi marriages. With respect to the dispute resolution mechanism, one participant shared, “you will not find a single case in this village that has reached the police station. Historically the people in the village sort out the dispute internally with the help of the traditionally evolved dispute resolution mechanisms without involving an external party or police officials. These traditions are still strong among Adivasi villages.”

The importance of locally brewed alcohol as part of the Adivasi culture and its menace in society also came up in one of the discussions with some groups. According to one of the participants, “boys come into the influence of alcohol consumption early in their life and that often also results in detachment from the study.” The participants agreed that though the locally brewed liquor is part of their culture, particularly in the Oraon and Munda tribes where liquor is part of the celebration in most of the rituals and festivals, the problem of alcoholism is a big menace within the society. The young participants were of the view that selling locally brewed liquor was important, and perhaps the only livelihood for the sellers, often women, and unless an alternative livelihood provision is made for these women, its sale should not be stopped.

Two additional traits of Adivasi culture came up in this discussion. First, that the Adivasi society essentially is laid back, happy with what it has and does not breed a competitive mentality. As one participant remarked, “in our Adivasi culture there is no competition among us, getting-ahead-of-others mentality is not part of our culture – rather we prefer to live a communitarian life.” Second, the participants drew attention to the *sarna* religion which they followed. According to the participants in *sarna* religious practices idol worship made way to worship of nature, and worship in closed temples made way to worship in an open place in nature.

Issues related to relationship with the forests

Four distinct observations came out of these discussions: (i) the Adivasi population, wherever forests are available, continues to depend on the forest for multiple uses, but that dependence is reducing as the general state of the forest and its produce-bearing capacity is reducing, (ii) there is a gendered relationship between the forest and

Adivasis – it is the women who move into the forest to collect fuelwood, dry leaves and multiple forest produce. It is they who face the related drudgery associated with the collection and the angst of negotiating with the forest department’s officials, (iii) in some parts there is an understanding that forest conservation is important to create a micro-climate that brings in rain and is favourable for agriculture and (iv) as of now, very limited value addition of forest produce was reported in the group discussions, rather the participants complained about low prices that the produce fetch in the nearby market. The degree of awareness about the Forest Rights Act, the proportion of Adivasi people who had applied for individual rights, the frequency with which community rights were claimed and the proportion of people granted FRA all varied across the places surveyed. In general, CFR was seldom granted.

Migration income



Discussions with different communities revealed that migration is an important source of family income for an overwhelming majority of Adivasi households. Nearly all the households need to send their male members for labour work. While some of them work on farms nearby or in nearby towns, many of them migrate to different states and far off places. The discussion revealed that most people migrate into low paying jobs with high insecurity and high drudgery. When they are employed in nearby farms, the wage rate paid is on the lower side but there is security, both physical and security of the wage actually being paid. When they migrate far, they usually earn a higher wage rate but they can often be cheated out of their wage or they could experience a situation where the nature and rigour of work are not what they bargained for. Those with better skills tend to migrate to distant places and seem to also be more satisfied, but those who migrate to brick kilns or quarries are exploited. Migration to outside states has suddenly become a less favoured option due to the terrible shock of the lockdowns following the COVID-19 pandemic. Since the regions in which they lived had high poverty and low employment opportunity, they had to go outside their state. Migration appears to be increasingly circular: men migrate post-Kharif to earn by wage work in distant places, come back once or twice during the year and bring some money towards the end of the next summer, and the money saved is invested in Kharif agriculture.



Non-farm livelihoods



Agriculture neither provides enough income nor work through the year. The Adivasi households, therefore, face the question of livelihood to meet their needs. Their choices are restricted by poor education and training. Unskilled as most of them are, they can only do work of unskilled labour whether in rural settings or even after migration to distant places. The scope for rural work comes through MGNREGA. Adivasi youth in particular are wary of working under this scheme and seek “better quality” work. Many have learnt some skills on the job, particularly in the construction line. Many have acquired skills as masons or painters, etc. This does give them some occupational mobility and extra income. However, a large number of people are stuck in unskilled labour work - at times in very oppressive conditions. The phenomenon of Adivasi people working in quasi-bondage in stone quarries or in brick kilns is not uncommon and is often heard in the case of Adivasi people from Odisha. While both men and women have the aspiration for taking activities such as driving, plumbing, tailoring etc, skill-building centres are not within easy reach. If farming and work in rural areas have the prospect of low income and arduous work, working after skill-building also entails the travails of staying away from home. However, there was a strong and repeated demand made in the group —discussions about skill building for youth, both men and women.

Development paradigm, government schemes and governance



The groups did express themselves in an articulate matter about issues of drinking water, sanitation and health. Discussion with women threw up a mixed picture. While the general trend points towards some improvement in the sanitation, open defecation continues to be prevalent in many villages where the group discussion took place. The reasons that came up in the group discussions were faulty construction of toilets, lack of complementary water infrastructure and local (village level or panchayat level) mismanagement and elite capture. In a few places, the problem was seen with construction quality: leaky roofs, very shallow pits, crumbling frame etc. However, wherever the toilets are functional, the same have greatly improved the life of the womenfolk in the village. Women do feel very happy about the effort of the State.

While the sanitation situation has improved, the problem with water supply persists, particularly in summer.

Borewells run dry, ponds get depleted and women have to walk long distances, often up and down hills, to fetch water. In most places where the Government has made efforts to install borewells, tube-wells or “Jalminar”, women reported a reduction in drudgery. However, it was very common to hear that many of these structures went defunct in summer as groundwater levels deplete, and then women have to walk to the next village or further to fetch their daily water. Well-functioning sanitation and drinking water schemes were reported in just a few villages. As far as the status of the development schemes and the last mile development is concerned, Jharkhand gives a mixed picture. In some locations, lack of Anganwadi centres and irregular service of last-mile workers have constrained the access of various development programmes. In other locations, the access of the centres and workers have kept the schemes from getting implemented to the desired effect. In Odisha, in most of the locations studied, the last mile workers were functioning to the desired effect. However, the lockdown has affected the delivery of various nutrition and vaccination-related schemes – more so the nutrition schemes – whether mid-day meals scheme or the take-home ration (THR) scheme. The implementation of PESA is of a variable quality indicated by the sad state of the gram sabha, aam sabha and palli sabha. These meetings are mostly irregular, perfunctory, generally non-participatory, dictated by the mukhiya, ward member or the sarpanch and with very limited inclusion in decision-making as far as gender is concerned. Having progressive legislation without a serious administrative will at the field level has resulted in this situation. In some locations, Anganwadi Sevika or Sahayika were missing and nutritious food was not being given to eligible children. The lockdowns and the fear of COVID seem to have caused a major breakdown in this system wherever human interface was warranted. Pension schemes and the Kissan Samman Yojana disbursements are received due to the direct cash transfer mechanism. In the case of the surveyed areas of Odisha, the picture was better on these counts.

Issues regarding the status of women

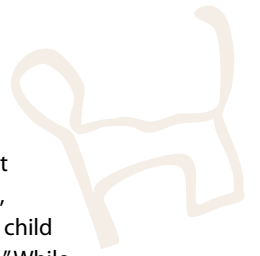


In a discussion with a youth group in Dumka, participants shared that in Adivasi society men and women enjoy equal opportunities and space in the family. The societal

structure did not promote any inequality in terms of access and opportunity to food and education between boy and girl child in a family. But then one respondent said that as per societal norms, the women are allowed to participate only in two festivals – Baha and Sohrai. Another respondent was of the opinion that exercise of this discretion depends on the individual or the guardian. During the marriage, the boy and girl can exercise their agency and there is no practice of dowry. With respect to inheritance rights, one participant mentioned that “as per cultural norms we do not give ownership of land and place to our sisters (post-marriage) but we invite sisters during the festivals and other occasions”. Another (women) participant shared, “we do not go to “Baraat” - there only men are allowed to go.” On being asked if girl child should

be allowed to inherit property rights, one participant remarked, “even if I want it, it will not happen.”. Another (male) participant mentioned, “there is no point in giving the property to a girl child as they get married and settled somewhere else.” While the sample might not be generalisable, the above remarks indicate that Adivasi society might be as gendered as non-Adivasi society.

The SHGs are women managed institutions in the village. The data obtained in the group discussion is not enough to draw definitive inference about their effectiveness, but we found that in various locations they were functional. The lockdown and social distancing in some places have affected the regular meetings and interactions among these groups.





Annexure

C : The State of Adivasi Livelihoods: Seeing Through The Socio-Economic Caste Census-2011



1. Scheduled Tribe Households



In India, as per Socio-Economic Caste Census (SECC 2011), the ST households comprise some 11% of the total rural households. In the eastern region, comprising the states of Bihar, Jharkhand, West Bengal and Odisha, around 10.5% of the rural households are ST households. In Jharkhand, ST households comprise around 30% of the total rural households. There is a high inter-district variation in Jharkhand - while ST households are up to 75% in Khunti district, it is only 1% in Koderma. In Odisha, on average, the ST households comprise a quarter of the total rural households. There is a high inter-district variation (SD:20). Sundargarh has the maximum proportion of ST households (64%) followed by Malkangiri. There are two contiguous geographical regions where one sees a high proportion of rural ST households: (i) Sundargarh, Kendujhar and Mayurbhanj and (ii) Kandhamal, Nabarangpur, Koraput and Malkangiri. Based on the SECC 2011 data, one can infer that among various states in the country, the states of Jharkhand and Odisha have a high ST population.

households and rural ST households reported manual casual labour as a source of income. In Jharkhand close to half of the rural households and rural ST households are engaged in manual casual labour. In Odisha, around 58-59% of the rural households reported manual casual labour as the source of income. Among the rural ST households in Odisha, 67-68% households depend on casual labour ($p < .01$).

At the national level, around 30% of the rural households and 38% of rural ST households report cultivation as a source of income. The dependence on cultivation as a source of income is still higher in Jharkhand. Around 32% of rural households and some 39% of rural ST households in the state reported cultivation as a source of income. In Odisha, on average, some 25% of all rural households and 24% of all rural ST households reported cultivation as a source of income. The inter-district range of variation was high: 68% among rural ST households (and 64% in rural households) in Malkangiri while only 4% in Cuttack. The median rural households and rural ST households who reported cultivation as a source of income were 24% and 23%, respectively.

2.1 Livelihoods Engagement: casual labour, agriculture and domestic work



The SECC collects information on the income sources of rural households. It gives information about the various activities that the people depend on for their livelihoods. In Jharkhand and Odisha, agriculture and manual casual labour are two dominant sources of income among rural households - particularly among the ST households. At the national level, more than half of the rural

Beyond manual casual labour and cultivation, part-time or full-time domestic service¹ is the third major source of livelihoods among the rural households - and to a lesser extent - rural ST households. At the national level, some 2.5% of rural households and 2% of rural ST households were engaged in part-time or full-time domestic service. The dependence was higher in Jharkhand, where 4% of rural households and 3% of rural ST households are engaged in this activity. In Odisha, around 3% of the rural households and 2% of the rural ST households are reportedly engaged in domestic service, either part-time or full time, for their livelihood ($p < .01$).

¹ The SECC website (<https://secc.gov.in/>), does not clearly define "domestic service".

The correlation analysis (Table 2) shows that in Odisha as the percentage of ST households to the total households increases, the dependence on cultivation as an income source increases and dependence on domestic service/ non-agricultural own account enterprises and other sources decreases. While the dependence on casual manual labour is high, that does not necessarily increase with the increase in the ST population. Whereas in Jharkhand as the percentage of ST household in overall rural household increases, the dependence on cultivation as an income source also increases while the dependence on manual casual labour as an income source decreases.

2.2 Livelihood engagement: Non-farm Sector



With respect to the nonfarm sector, the SECC 2011 enumerated two indicators: (i) registered non-agricultural enterprises and (ii) non-agricultural own account enterprises.

It was found that around 2.7% of rural households and 2% of rural ST households in the country had registered non-agricultural enterprises. The number of rural households and rural ST households having a registered non-agricultural enterprise was lower in the eastern region: 2% and 1.3% respectively. In Jharkhand, the figures hovered around 1.8% and 2.3%, respectively, with a high inter-district variation. In Odisha, around 2% of rural households and 1% of rural ST households had a non-agriculture enterprise that was registered with the government.

With respect to non-agricultural own account enterprise, around 2% of the rural households and 0.6 % rural ST households at the national level reported it as a source of income. The dependence on non-agricultural own account enterprises as a source of income is lower in Jharkhand. Around 1% of rural households and 0.6 % of rural ST households reported this as a source of their income². In Odisha, 1.4% of rural households and 0.5% of rural ST households reported having non-agricultural own account enterprises.

Overall, whether it was registered non-agricultural enterprises or non-agricultural own account enterprise as a source of income, the dependence on it was low among the rural ST households as compared to the overall rural households. The trend holds true at the national and at state level.

2.3 Other livelihoods activities



SECC also has information on the prevalence of foraging, rag picking, begging, charity and alm collection as a source of income. Around 0.6% of rural households at the national level and 0.5% of rural ST households are engaged in this basket of activities. The dependence on these set of activities is slightly higher, around 0.7%, among the rural ST households in Jharkhand. In Odisha, around 0.8% of rural households and 0.6% of rural ST households were engaged in foraging/rag picking/begging/charity or alms collection as their source of income.

Any activity from which a household draws their income that is beyond the above group of activities is classified under "other" income sources. Around 8% of ST households at the national level and 8% of ST households in Jharkhand depend on "other" income sources. In Odisha, around 11-12% of rural households and 5-6% of rural ST households reported income from "other" sources ($p < .01$).

In Odisha, the correlational analysis results in the following findings: (i) as percentages of ST households in total households increases so does their dependence on cultivation as an income source ($r = .56$, $p < .00$); (ii) while we don't know what constitutes domestic service, but as percentage of ST households increases, their dependence on this as a source of income reduces ($r = -.72$, $p < .000$); (iii) an increase in the percentage of ST households is strongly associated with a decrease in dependence on foraging/rag-picking/begging/charity or alms collection as an income source; (iv) weak but significant negative association ($r = -.39$, $p < .05$) between the percentage of ST households and dependence on non-agricultural own account enterprise as a source of income and (v) a negative association ($r = -.57$, $p < .00$) between the proportion of ST households and dependence on "others" as income source (SEC did not define what comprised "others").

In Jharkhand as the percentage of ST households in overall rural households increases, the dependence on cultivation as an income source increases ($r = .74$, $p < .000$), while the dependence on manual casual labour as an income source decreases ($r = -.78$, $p < .000$). Though there is a positive association between the proportion of ST households in

² The SECC website (<https://secc.gov.in/>), does not clearly define "domestic service".



rural households and dependence on part-time or full-time domestic service but the association is not statistically significant ($r=.4$, $p=.05$). Quite contrary to Odisha, we see a positive association, though weak, between the percentage of ST households in overall rural households and the dependence of households on foraging/rag picking as a source of income ($r=.48$, $p<.05$).

So, among the ST households in Jharkhand and Odisha, cultivation and manual casual labour are the two most important sources of livelihoods – both coming under informal unorganised with its share of multiple risks and vulnerabilities.

3. Income Slab

The SECC 2011 also enumerated the number of households on the basis of the income slab of the highest-earning member of the household. Here three income slabs were used: <5000, 5000-10000 and >10000. These metrics become a fair measure of economic prosperity (or economic vulnerability) of the rural households.

At the national level, around 75% of the rural households reported that the highest-earning member in the family earns less than Rs 5000 per month. Among the ST households, this proportion is 87%. Thus, prosperity was comparatively lower among the rural ST households. The state of economic prosperity is worse in the eastern rural region with around 79% of all households and 90% of the ST households reporting less than Rs 5000 per month income for the highest earning family member. In Jharkhand, the figures hovered around 78% and 84%, respectively³. A mirror image is observed as one moves up the income slab. At the national level, some 8% of the rural households and 4.5% of rural ST households reported that the highest-earning member in the household earned more than Rs 10,000 per month. In the eastern region, 6% of all rural households and 3% the rural ST households reported more than Rs 10,000 earning per month. The situation is slightly better in Jharkhand as 7% of total rural households and 5% of rural ST households reported the same, respectively⁴.

In Odisha, in around 90% of all rural households and 95% of rural ST household ($p<.01$), the monthly income of the highest-earning member of the household was less than 5000. The figures were worse than the national and

regional level figures for both the groups. Only in 5% of the rural households and 2% of the rural ST households ($p<.01$), the monthly income of the highest-earning member of the household was more than Rs10,000. Overall, for all the income slabs, the situation of a rural household in Odisha was worse off compared to the national and regional figures.

In Odisha, correlational analysis (Table 2) shows that as the proportion of ST households increases so does the proportion of households whose highest-earning households earn less than Rs 5000 per month. Predictably, an increase in the percentage of ST households is strongly associated with a decrease in the proportion of household where the highest-earning members earn more than Rs 10000 per month ($r=-.52$, $p<.00$). We see a similar trend in Jharkhand, but contrary to Odisha, here the associations are not strong and significant.

The SECC 2011 data also indicates that the rural ST households are economically more vulnerable as compared to overall rural households which also includes other social categories. The vulnerability is manifested at the national level, at the regional level and at the state level. However, the state of vulnerability appears to be slightly lower in Jharkhand and higher in Odisha when compared with the eastern region figures. It seems that the ST population in Jharkhand is perhaps slightly better positioned, economically, and the ST population in Odisha is much worse off, as compared to the ST population at the regional and national level.

4. Footprint in the salaried job market

Socio Economic Caste Census (SECC, 2011) records the number of rural households in the salaried job market. The data mirrors the interface of the rural households with the formal organised sector. Formal salaried jobs have some advantages: formalisation of the workforce, increased certainty of monthly cash inflows and livelihood assurance, and increased prosperity.

According to SECC 2011, around 5% of the rural households are in government salaried jobs and some 4% in the private-sector salaried jobs. Among Scheduled Tribes, only 4% of the rural ST households reported having

³ $p<.01$

⁴ $p<.05$

a member in government sector salaried job and only 1.5% reported a member in private-sector salaried job. Tribal footprint in the salaried job sector is still lighter in the eastern region. Here, around 4% of the rural households have government sector jobs, and 2% had the private-sector jobs. Among Scheduled Tribes, only 3% households had a member in a government job and less than 2% had a job in the private sector. In Jharkhand, around 4.5% of all rural households had government jobs while 2% had jobs in the private sector. Among rural ST households in Jharkhand, around 4% had a member in government job and little more than 1% had a member in private sector job.

In Odisha, around 4% of the rural households and around 3% of the rural ST households ($p < .01$) had a member in salaried government job. The inter-district variation is quite high among the rural ST households. Apart from Sundargarh and Jharsuguda – the mining belt in the state – in most other districts with significant ST households, their proportion in a salaried government job was much lower than the state average – leave alone the national and regional averages. The trend is similar for the private sector jobs. Around 1.8% (median 1.2%) of rural households and 0.5% (median 0.3%) of rural ST households in Odisha had a member in salaried jobs in the private sector ($p < .01$). Like in the case of government jobs, here also the inter-district variation is high. Apart from Kendujhar, Sudargarh and Jharsuguda, other ST dominated districts show a relatively lighter footprint in private sector jobs as compared to the state average. The state average – particularly among the rural ST households – of participation in private-sector job sector is low compared to the national and regional averages.

Overall footprint in salaried job market does not exceed 5%. More households reported having a government job as compared to private-sector jobs. At the national level, the gap in participation between government and private sector jobs is higher among the ST households as compared to the overall rural households. The situation in Jharkhand largely follows the national and regional trends. In the case of Odisha, the participation of both the rural households and rural ST households in government and private sector jobs is much lower.

Around 5% of rural households in the country had a member who is/was⁵ a government employee. The proportion reduces to 4 % for rural ST households. In the eastern region, 4% of the rural household and 2.8% of

the rural ST household had a member who is/ was a government employee. In Jharkhand, the proportions hover around 4% for both the groups. This shows that with respect to a government job, in Jharkhand there is hardly any difference between ST households and other rural households. However high inter-district variation is witnessed within both groups. In Odisha, around 4% of rural households and 3% of rural ST households have a member as a government employee. Scheduled Tribe households in Odisha are worse off compared to the situation at the national level.

In Odisha, the correlation analysis (table 2) shows a strong negative association between the proportion of ST households with the proportion of households with salaried jobs in the government and private sector. So, one can infer that the Odisha ST household footprint in the salaried job market goes down with an increase in the proportion of ST households. We see a similar trend in Jharkhand also, but the associations are not statistically significant.

All these imply that the livelihoods portfolio in rural India, and more so among the rural ST households, indicates a high dependence on the informal and unorganised sector for livelihoods. This finding also corroborates with the income source findings where an overwhelming majority of respondents reported manual casual labour, cultivation, and non-agricultural self-enterprises as their source of income. If one brings in the income slab component on top of these, we also see the low level of income realised at the household level. The ST households at the national level are more likely to be engaged in manual casual labour and agriculture, more likely to have lower-income and more likely to have a lower footprint in the salaried job market. However, in Jharkhand, the difference between the ST households and overall rural households are not that stark as seen at the national and regional level. In Odisha, not only the ST households were worse off when compared with the overall rural households, but on various parameters, the situation of both these groups was worse off when compared with the national and regional situation.

5. Landholding

The land is the most important mode of production and the bedrock (natural capital base) of rural agrarian livelihoods. In rural areas (and in gentrified urban areas), land is the basis of identity. Land alienation, land

⁵ Our interpretation, SECC does not make it clear whether is or was. It just mentions households with a government employee.



acquisition and land disputes/conflicts have for a long (and continue to) affected India's hinterland.

According to the SECC 2011, only 44% of rural households in India have land. So, more than half of the rural households are landless. The number of landowning rural households in the eastern region is down to 38%, where landlessness among the rural households is as high as 62%. Landlessness was found to be a relatively lesser problem in Jharkhand. On average around 63% of rural households had land. However, there was wide inter-district variation. In the West Singhbhum, only 28% of households had land (landlessness goes up to 72%); in Khunti, the number hovered around 80%. Relatively speaking (with respect to the national level situation), landlessness was not a major problem in Odisha. Around 46% of rural households in Odisha had land – this was higher than the national (44%) and regional figures (38%, $p < .01$).

At the national level, around 50% of the rural households are landless and their income source was manual casual labour. The proportion goes down to 40% for the ST households. In the eastern region, however, around 55% of rural households and 40% of rural ST households are landless and derived a major part of their income from manual casual labour. The situation of landlessness and dependence on manual casual labour is lower in Jharkhand as 26% of rural households and 18% of rural ST households reported landlessness and dependence on manual casual labour.⁶ However, the inter-district variation is very high – for example, in Koderma the prevalence of this indicator among ST households went up to 57%. In Odisha, around 45% of the rural household and 52% of rural ST households were landless households who derived a major part of their income from manual labour. The situation of ST households was not only worse off the remaining rural households in Odisha, but also worse off the rural ST households at the national (40%) and regional (40%) levels.

6. Irrigation

If land is the most important mode of production, ownership of water resources or irrigation infrastructure is the most important complementary asset. Around 40% of agriculture land in the country remains unirrigated and only 37% of land has assured two-season irrigation. In the eastern region, around 40% of the land remains

unirrigated while another 40% has assured two-season irrigation. However, the situation is worse off in Jharkhand – around 58% of land remains unirrigated and only 23% has assured two-season irrigation. The situation in Odisha is still worse. Around 70% of land in Odisha, as compared to 41% ($p < .01$) in India and 40% ($p < .01$) in the eastern region, remains unirrigated. The inter-district variation is high, with the median unirrigated land in Odisha at around 74%. So, close to three-fourth of the land in the state is rainfed. Only 16% of the land in Odisha has assured irrigation in contrast to 37% ($p < .01$) and 40% ($p < .01$) at the national and regional level respectively. Around 14% of land in Odisha has some irrigation coverage,⁷ which is again lower than the national (23%) and regional (20%) estimates.

Lack of control over water resources characterises the landholding pattern of the rural ST households. Around 30% of the rural households in India and 56% of rural households in Jharkhand own unirrigated land. Around 43% of the rural ST households in India and 64% of rural ST households in Jharkhand own unirrigated land. As far as ownership of unirrigated land is concerned, the ST households are worse off overall rural households. However, the gap between the two groups is lower in Jharkhand (8%) as compared to the national level (13%).

As far as ownership of irrigation equipment at the national level is concerned, it hovers around 10% among rural households and around 5% in ST households. In Jharkhand, the ownership of irrigation equipment hovers around 6% among rural households and around 5% among rural ST households. Around 23% of the landed households (which itself is a small number) in the country own irrigation equipment. The regional and Jharkhand ownership pattern is worse off in the national level. Only 11% of rural households in the eastern region and 10% of rural households in Jharkhand own irrigation equipment. Hence the gap in Jharkhand is narrower as compared to the national level gap. With respect to access to irrigation, it may appear that ST households in Jharkhand are not way behind the overall rural households, but the fact is that the overall status of irrigation is much poorer in Jharkhand – irrespective of the social category. Just around 4% of rural landed households in Odisha own irrigation equipment (including diesel/kerosene/electric pumpset, sprinkler/drip irrigation system, etc.) compared to 23% aggregate rural household at the national and 11% rural household at the regional level.

⁶ $p < .01$.

⁷ Under the head "other irrigated land" though SECC does not define what is meant by that nomenclature.

Around 4% of the rural households and 2% of rural ST households at national level owned irrigated landholding of 2.5 acres with at least one irrigation equipment. The figures go down in the eastern region where 1.2% rural households and 0.4% rural ST households owned irrigated land of 2.5 acres or more. In Jharkhand, the figures hovered around 1% for both rural households and rural ST households. In Odisha, around 0.2% of rural households and 0.1% of rural ST households owned 2.5 acres or more irrigated land with at least one irrigation equipment – much worse than the national and regional level irrigation capacities.

As irrigation coverage increases, its ownership reduces. Only 3% of all rural households and 1.3% of rural ST households owned irrigated landholding of 5 acres or more. The phenomenon is acute in the eastern region: only 1% of all rural households and 0.6% of rural ST households have irrigated landholding of 5 acres or more. In Jharkhand, the coverage hovered around 1% for both overall rural households and rural ST households. Only 2% of all rural households and 1% of rural ST households in the country owned irrigated landholding of 7.5 acres or more. The coverage was less than 1% both in the eastern region and Jharkhand state. In Odisha, around 0.2% of rural households and 0.1% of rural ST households owned 7.5 acres or more irrigated land with at least one irrigation equipment – far worse compared to the national and regional averages.

One observation that is uniform with respect to landholding at the national and regional levels is low ownership of irrigated land among the Adivasi households. In Jharkhand, there is no difference in ownership between Adivasi and overall rural households – but the overall ownership of the irrigated land itself is abysmally low in the state. In Odisha, though the base is abysmally low, within that the ownership among ST households is lower still.

7. Deprivation and Exclusion Criteria



The SECC 2011 measured the state of rural households on a cluster of parameters clubbed under two broad categories – the deprivation criteria and the exclusion criteria. In this section, we examine the status of rural households (and rural ST households) in the country, rural households (and rural ST households) in the eastern region and the rural households (and rural ST households)

with respect to some of the indicators that defined these criteria. A comparative analysis between rural households and ST rural households also provides insights on the relative status of the ST households with respect to physical capital, human capital and financial capital, which along with the resource condition results in certain livelihood outcomes highlighted above.

7.1 Housing



Whereas around 20% of all rural households in the country reported having only one room with a *kutcha* wall and a *kutcha* roof, the corresponding figure for the ST households was 30%. In the eastern region, around 28% of rural households and 30% of ST rural households lived in *kutcha* houses. The difference between the rural households and the ST rural households reduces at the regional level – albeit over a lower base. With respect to housing, the comparative situation of ST households in Jharkhand was somewhat better. Around 21% of rural households and 22% of rural ST households in the state lived in *kutcha* houses. The housing situation among the ST households in Jharkhand appears to be superior when compared with the national level and regional level situation. However, the state average does mask the high inter-district variation. Some of the districts, like Pakur (40%), reported poor status with respect to the housing of ST households as compared to the national and regional averages. However, in Odisha, around 33% of rural households and 38% of rural ST households reported that they had only one-room *kutcha* house. These numbers are much higher than the national and regional averages, which indicates that with respect to housing, the situation in rural Odisha is worse off and the rural ST households are in the worst position.

When it comes to living in spacious *pucca* houses, the findings were stark for the rural ST households. Around 18% of the rural households and 6% of rural ST households lived in houses with three or more rooms with *pucca* walls and *pucca* roofs. The situation worsened in the eastern region where some 11% of rural households and 4% rural ST households had access to more than three rooms with *pucca* roofs and walls. In Jharkhand, the respective figures are 11% for rural households and 6% for rural ST households.⁸ In Odisha, around 9% of rural households and 3% of rural ST households lived in a house with three or more rooms with *pucca* walls and roof. Again, the housing situation in Odisha is worse off the national and regional averages.

⁸ p<.01.

7.2 Mobile Phones and Refrigerators



With respect to the ownership of mobile phones, the SECC 2011 found that while 68% of the rural households owned mobile phones, among rural ST households only 41% had mobile phones. In Jharkhand, 64% of the rural households and 52% of the rural ST households owned mobile phones. So, in terms of the ownership of mobile phone, Jharkhand was in a better position compared to the national average. The SECC 2011 national data on household ownership of refrigerators – an indicator of prosperity and also an indicator of access to a complimentary infrastructure – shows that while 11% of rural households in the country owned refrigerators, among rural ST households only 3% owned a refrigerator. In the eastern region only 4.3% of rural households and 2% of rural ST households owned a refrigerator. In Jharkhand, the situation was slightly better – 5% rural households and 3% rural ST households owned a fridge.⁹ In Odisha, around 5% of rural households and 1.5% of rural ST households owned refrigerators. Thus, the ownership pattern among the ST households in Odisha was way below the national and regional averages.

7.3 Human Capital



The human capital defines the capability of a household to pursue (or not be able to pursue) certain livelihoods activities, which then determines the various outcomes that the household might (might not) enjoy. In this regard, the SECC 2011 looked into four extreme indicators: (i) absence of any adult member between age 16-59, (ii) adult male member in the age group 16-59 among female-headed households, (iii) having a *divyang* member and no able-bodied adult member and (iv) no literate adult member in the household.

Around 6% of rural households and 5% of rural ST households at the national level reported no adult member between age 16 and 59. In the eastern region, the respective figures for the indicator are 4% for rural households and 4% of rural ST households. Against the regional average, the situation was slightly better in Jharkhand with only 4% rural households and 3% rural ST households without adult member between 16-59 years old. However, the inter-district variation is high. Some districts like Garhwa recorded the high proportion of such households (7%) way above the national and regional averages. In Odisha, around 6% of rural households

and 5.5% of rural ST households have no adult member between 16 to 59 years. Hence, for this indicator, the situation in Odisha is grimmer compared to the region and country as a whole.

Around 6% of rural households and rural ST households were female-headed with no adult male members within the 16-to-59-year age group. The situation was more or less similar in the eastern region with around 5% of rural households and 7% of rural ST households being female-headed with no adult member in the 16-59 age bracket. In Jharkhand, the indicator outcome was slightly better: both rural households and ST rural households had 5% female-headed households each without an adult member aged between 16-59 years. In Odisha, around 7% of rural female-headed households and 7% of rural ST female-headed households had no adult member aged between 16 -59 years. Again, the figures are grimmer for Odisha compared to the national and regional figures. This indicates increased vulnerability among the female-headed households in Odisha.

With respect to a still more extreme indicator – having a *divyang* household member but no able-bodied adult member – the situation was more or less the same among rural households (0.7%) and rural ST households (0.6%) at the national level. The situation was marginally better in the eastern region as 0.5% rural households and 0.6% rural ST households in this category. In Jharkhand the category included 0.5% of rural households and 0.4% of rural ST households. However, the state has high inter-district variation with some districts performing worse than the national and regional averages. In Odisha, around 0.7% of female-headed rural households and 0.6% of rural ST households ($p < .01$) had a disabled family member and no able-bodied adult member. The figures were similar to the national average but worse than the regional average.

At the national level, roughly 40% of the overall rural households and 53% of rural ST households had no literate adult above 25 years. The situation is more or less the same in the eastern region where 39% of rural households and 52% of rural ST households reported no literate adult in the family. In Jharkhand, the figures were 41% and 50% for rural households and rural ST households¹⁰. Like above, high inter-district variation was observed with respect to this indicator. In Odisha, around 36% of rural households and 52% of rural ST households ($p < .01$) had no literate adult above 25 years. The figures show a dismal state of literacy among rural households in general and among rural ST households in particular.

⁹ $p < .05$.

¹⁰ $p < .01$.

7.4 Physical Capital and Financial Capital



Ownership of physical capital like transport facility/fishing boats, agriculture equipment and access to cheap credit facilities to overcome the working capital requirements are critical for prosperous livelihoods. According to SECC 2011, around 21% of rural households owned assets like motorised transport/ fishing boats and 4 % of rural households owned mechanised agriculture implements. The corresponding figures for rural ST households are lower: some 10% owned motorised productive assets and 2% owned mechanised productive assets.

The ownership pattern is worse off in the eastern region, where only 11% of rural households and 7% of rural ST households owned motorized productive assets and roughly 2% of rural households and 1% of rural ST households owned mechanised productive assets. The situation of ownership of productive assets in Jharkhand was worse than the national situation at the overall level but slightly better among rural ST households. Around 18% of the rural households and 13% of the rural ST households in Jharkhand owned motorised assets¹¹ and 2% of rural households and 1.5% of rural ST households in Jharkhand owned mechanised assets.

In Odisha, 9% of rural households and 4% of rural ST households ($p < .01$) owned motorised transport/fishing boats – both the figures much lower than the national and regional averages. On similar lines, only 1% of rural households and 0.5% of rural ST households ($p < .01$) in Odisha owned mechanised three/four-wheeler or agricultural implements – a situation worse than the national and regional figures. Hence, as far as ownership of essential physical capital is concerned, the situation in rural Odisha is worse than what is observed at the national and regional level – and the condition of the ST households in the state is worst.

Around 4% of rural households and 2% of rural ST households in the country had Kissan Credit Card with a credit limit of Rs 50,000 and above. The coverage was found to be lower in the eastern region where only 2% of rural households and 1% of rural ST households had KCC with a credit limit of Rs 50,000 and above. In Jharkhand, the number of rural households and rural ST households with KCC was around 2% each. So, while the situation is dismal,

but relatively speaking the rural ST households in Jharkhand are not worse off in comparison with the rural households in general. In Odisha, average of 1.5% of all rural households and 0.7% of rural ST households had a KCC card with a credit limit of Rs 50,000 and above but with a high inter-district variation. The penetration of KCC in rural Odisha is lower than regional and country average.

8. Scheduled Tribe Households in Jharkhand and Odisha: Similar yet Different



Based on the SECC 2011 data it can be argued that the states of Jharkhand and Odisha are similar, yet different. In terms of demographics, the two states have above national average (11%) of Scheduled Tribe population, but within the states the percentage of ST households in the total rural households is not statistically significant. The mean proportion of ST households is around 26% in Odisha and 32% in Jharkhand. Both the states show high inter-district variation—more so in Odisha, where certain districts have greater concentration of ST households. The median proportion of ST households is around 22% in Odisha and 31% in Jharkhand. That's where the similarity ends. The ST households in the two states fare quite differently for various development parameters – whether measured in terms of livelihoods outcome (income), resource condition (land) or the general state of physical, human and financial capital, which together with the resource condition influence livelihood outcome.

8.1 Income, Housing and Accessories



Let's start with livelihoods outcome – a measure that SECC computed by gathering household income-wise data on the highest-earning member under three slabs: less than Rs 5000 per month, between Rs 5000-10,000 per month, more than Rs 10,000 per month. In Jharkhand, 84% of ST households reported having a member earning less than Rs 5000 per month, while in Odisha the figure went up to 95% ($p < .000$). As expected, one sees a mirror image at the highest income slab. Around 5.4% of ST households in Jharkhand had a member who earned more than Rs 10,000 per month, while the corresponding figure for Odisha was 2% ($p < .000$). Hence on an average, the ST households in Odisha earned less than their counterparts in Jharkhand.

¹¹ $p < .05$.



The status of housing among the ST households also varied across the two states. While 23% of the ST households in Jharkhand had only one room with *kucha* walls and roof, in Odisha this category accounted for 38% ST households ($p < .000$). At the other end of the spectrum, around 6% of ST households in Jharkhand and only 3% in Odisha ($p < .05$) lived in a three-room *pucca* house. Around 3% of ST households in Jharkhand and only 2% in Odisha ($p < .000$) owned a refrigerator.

8.2 Source of Income

The dependence on different sources of income also varied among the ST households in the two states. While only 24% of ST households in Odisha were engaged in agriculture for income, the same went up to 39% in Jharkhand ($p < .000$). The practice of manual casual labour was higher in Odisha (67%) as compared to Jharkhand 49% ($p < .000$). While 2% of ST households in Odisha were into domestic service, in Jharkhand the figure hovered around 3% ($p < .00$). Around 6% of ST households in Odisha and 8% of ST households in Jharkhand reported "others" as a source of income. Only 0.5% of ST households in Odisha and 0.6% of ST households in Jharkhand reported non-agricultural own account enterprise as the source of income. While manual casual labour dominated the livelihood-scape in both the states, the dependence was much higher in Odisha.

8.3 Interface with the Formal and Government Sector

In terms of the overlap with the formal sector, as measured by SECC through the prevalence of salaried jobs among households, the ST households have a limited footprint in both the states. However, the footprint is slightly better in Jharkhand as compared to Odisha. While 4% of ST households in Jharkhand reported salaried jobs in government, the proportion was 3% in Odisha ($p < .00$). Similarly, 1.3% of ST households reported private-sector salaried jobs while the proportion came down to 0.5% in Odisha ($p < .05$). On similar lines, the overlap with the government as part of their livelihood activities was low among ST households in both Jharkhand and Odisha. While around 4% of ST households in Jharkhand had a member as a government employee, the same in Odisha was around 3% ($p < .05$). Only 2% of ST households in Jharkhand and 1% of ST households in Odisha ($p < .000$)

had non-agricultural enterprises registered with the government. Again, though the assessment base is small, between Jharkhand and Odisha, the former was doing slightly better.

8.4 Resource Condition: Land and Water

While 64% of households in Jharkhand had land (hence 36% were landless), corresponding figure for Odisha was 46% ($p < .000$). Not only was landlessness higher in Odisha, relative to Jharkhand fewer rural households had the means for irrigation. While 58% of the land in Jharkhand was unirrigated (rain-fed only), as much as 69% ($p < .000$) in Odisha was rain dependent. As a corollary to this, while 23% of the land in Jharkhand had assured two-season irrigation, in Odisha only around 16% ($p < .00$) land had assured two-season irrigation. Though SECC does not define what is meant by "other irrigated land" but even on this parameter, Jharkhand was found to be better positioned compared to Odisha (20% and 14% respectively). Ownership of irrigated land and irrigation equipment was abysmally low in both Jharkhand and Odisha. But even then, the ownership level was higher in Jharkhand.

While 1% of ST households in Jharkhand owned 2.5 acres or more irrigated land with at least one irrigation equipment, the corresponding figure for Odisha was 0.1% ($p < .000$). Similarly, while 0.6% of ST households in Jharkhand owned more than 7.5 acres of irrigated land with at least one irrigation equipment, the corresponding figure for Odisha was only 0.1% ($p < .000$). So, with respect to landholding and irrigation access, Scheduled Tribes in Jharkhand are better positioned than those in Odisha. Further, while only 19% of ST households¹² in Jharkhand derived a major part of their income from manual casual labour, in Odisha, it was high of 51% ($p < .000$).

8.5 Physical Capital and Financial Capital

The ownership of motorized and mechanized assets is generally low among the ST households in both the states, but still, there is a difference between them. In Jharkhand, around 13% of ST households owned motorized assets, but in Odisha, the ownership was a mere 4% ($p < .000$).

¹² SECC does not provide information on what proportion of ST households are landless.

Similarly, the ownership of mechanised assets was 1.5% among ST households in Jharkhand but only 0.5% in Odisha ($p < .000$). KCC is an important financial capital as it ameliorates the working capital crisis for agriculturists. The ST household access of KCC with a credit limit of Rs 50,000 and above is very low among in both Jharkhand and Odisha. However, while 2% of the ST population in Jharkhand have KCC, the corresponding figure in Odisha is 1% ($p < .000$). With respect to access to these capital/assets again Jharkhand was doing better than Odisha.

8.6 Human Capital

The human capital possessed by a household indicates its "ability" to convert (or improve) the available resource condition (natural or physical or financial capital) and translate it into improved livelihoods outcome. There is a difference in some of the parameters in the two states that one can correlate with human capital. While around 3% of the ST households in Jharkhand had no adult between ages of 16 and 59; in Odisha, such households were 5% ($p < .000$). Even within the female-headed households, some 5% in Jharkhand and 7% in Odisha ($p < .000$) had no adult male member. In around 50% of ST households in Jharkhand and 52% in Odisha, there was no literate adult member aged above 25 years.

In Odisha, as per the correlation analysis (Table 2), as the percentage of ST households to rural households

increases, there is an increase in (i) the proportion of female-headed households with no adult male member between age 16 to 59 and (ii) the proportion of households without a literate adult above 25 years. The same findings were for Jharkhand: as the proportion of ST households to total rural households increased, the proportion of female-headed households with no adult male member, aged 16 and 59 years, increased.

9. Conclusion

The study shows that low level of ownership and access to critical physical and financial capital, low literacy among adult members of the households (and hence low human capital) coupled with high landlessness, overwhelming dependence on manual casual labour for sustenance, poor access to irrigation, and very low footprint in the formal salaried job market are the predominant reasons of the vicious cycle of poverty that entraps a large part of rural households in general and rural ST households in particular. While the overall situation of rural ST households in Jharkhand was mostly worse than rural households in the state, the difference between ST households and rural households is not as stark as seen between these two groups at the national and regional levels. The state of Odisha was the worst of the lot on most of the above parameters – the rural households did worse, and the ST households were worst of the lot.

Table 1: Development profile of rural ST Households in Jharkhand and Odisha


Indicators	Jharkhand (Values in percentage)	Odisha (Values in percentage)	P-value
ST households in total rural household	32.0	26.0	NS
ST households with monthly income of highest earning household member < 5000	84.0	95.0	***
ST households with monthly income of highest earning household member 5000 – 10000	11.0	3.0	***
ST households with monthly income of highest earning household member > 10000	5.0	2.0	***
ST households with agriculture as the only source of income	39.0	24.0	***
ST households with manual casual labour as income source	49.0	67.0	***
ST households with part-time or full-time domestic service as source of income	3.0	2.0	**
ST households with foraging or rag picking as source of income	0.5	0.2	NS
ST households with non-agricultural Own Account Enterprise as income source	0.6	0.5	NS

Indicators	Jharkhand (Values in percentage)	Odisha (Values in percentage)	P-value
ST households with Begging/Charity/ Alms collection as source of income	0.2	0.4	NS
ST households with other income source	7.8	6.0	**
ST households with salaried jobs in Govt	4.0	3.0	**
ST households with salaried jobs in private sector	1.3	0.5	**
ST households owning motorized two/three/four wheelers/fishing boats	13.0	4.0	***
ST households owning mechanized three/four-wheeler agricultural equipment	1.5	0.5	***
ST households having kisan credit card with the credit limit of Rs.50,000 and above	1.6	1.0	***
ST households with any member as government employee	4.0	3.0	**
ST households with non-agricultural enterprises registered with government	1.8	1.0	***
ST households with any member earning more than Rs. 10,000 p.m	5.4	2.0	***
ST households with three or more rooms with pucca walls and pucca roof	5.6	3.0	**
ST households owning refrigerator	3.1	2.0	***
ST households owning 2.5 acres or more irrigated land with at least one irrigation equipment	1.0	0.1	***
ST household owning 5 acres or more land irrigated for two or more crop seasons	1.1	0.2	***
ST households owning 7.5 acres or more land with at least one irrigation equipment	0.6	0.1	***
ST households with kucha walls and kucha roof_	22.0	38.0	***
ST households with no adult member between age 16 to 59	3.0	5.0	***
ST female-headed households with no adult male member between age 16 to 59	5.0	7.0	***
Deprived ST households with deprivation criteria: a disabled member or no able bodied adult member	0.4	1.0	***
ST households with no literate adult above 25 years	50.0	52.0	NS
ST landless households deriving major part of their income from manual casual labour	19.0	51.0	***
Household with land	64.0	46.0	***
Unirrigated land	58.0	69.0	***
Land with assured two-season irrigation	23.0	16.0	***
Other irrigated land	20.0	14.0	**
Landowning households who also own mechanized three/four wheeler agricultural equipment	3.5	2.0	***
Landowning households owning irrigation equipment (including diesel/kerosene/electric pumpset, sprinkler/drip irrigation system, etc.)	10.0	4.0	***
Households with Kisan Credit Card with credit limit of Rs 50,000 or above	4.0	3.0	NS

*** p<.01, ** p<.05, NS: Not Statistically Significant

Table 2: Correlation between development indicators and the percentage of ST households in the overall rural households

Indicators (taken as percentage value)	Correlation Coefficient (Odisha)	p-value (Odisha)	Correlation Coefficient (Jharkhand)	p-value (Jharkhand)
Households with income source as cultivation	0.56	**	0.75	***
Households with income source as manual casual labour	-0.18	NS	-0.78	***
Households with income source as part-time or full-time domestic service	-0.72	***	0.40	NS
Households with income source as foraging/ rag picking	-0.66	***	0.48	**
Households with income source as non-agricultural own account enterprise	-0.39	**	-0.11	NS
Households with income source as begging/charity/ alms collection	-0.73	***	-0.32	NS
Households with income source as others	-0.57	***	-0.41	NS
Households with monthly income of highest earning household member < 5000	0.65	***	0.08	NS
Households with monthly income of highest earning household member 5000 - 10000	-0.68	***	0.03	NS
Households with monthly income of highest earning household member > 10000	-0.52	***	-0.23	NS
Households with salaried jobs in Govt	-0.52	***	-0.40	NS
Households with salaried jobs in Public Sector	-0.14	NS		
Households with salaried jobs in Private Sector	-0.49	**	-0.14	NS
Households owning motorized two/three/four wheelers/ fishing boats	-0.42	**	0.03	NS
Households owning mechanized three/four wheeler agricultural equipment	-0.28	NS	0.13	NS
Households having kisan credit card with the credit limit of Rs.50,000 and above	-0.24	NS	0.18	NS
Households with any member as government employee	-0.52	***	-0.40	NS
Households with non-agricultural enterprises registered with government	-0.56	***	-0.13	NS
Households with any member earning more than Rs. 10,000 p.m	-0.52	***	-0.23	NS
Households with three or more rooms with pucca walls and pucca roof	-0.36	NS	-0.56	***
Households owning refrigerator	-0.5	**	-0.25	NS



Indicators (taken as percentage value)	Correlation Coefficient (Odisha)	p-value (Odisha)	Correlation Coefficient (Jharkhand)	p-value (Jharkhand)
Households owning 2.5 acres or more irrigated land with at least one irrigation equipment	-0.41	**	-0.22	NS
Household owning 5 acres or more land irrigated for two or more crop seasons	-0.47	**	0.11	NS
Households owning 7.5 acres or more land with at least one irrigation equipment	-0.14	NS	-0.20	NS
Households with <i>kucha</i> walls and <i>kucha</i> roof	-0.39	**	-0.25	NS
Households with no adult member between age 16 to 59	0.29	NS	0.16	NS
Female headed households with no adult male member between age 16 to 59 years	0.58	***	0.73	***
Households with disabled member or no able-bodied adult member	-0.34	NS	-0.09	NS
Households with no literate adult above 25 years	0.74	***	-0.22	NS
Landless households deriving major part of their income from manual casual labour	-0.33	NS	-0.20	NS

*** p<.01, ** p<.05, NS: Not Statistically Significant

Annexure

D : Village level data



Jharkhand

Table 3: Village access and communication, Jharkhand

Indicator	Adivasi	Non-Adivasi
Average Distance from block headquarters (km)	13	11
Percentage of village having all-weather road to block headquarters	74	90
Percentage of villages with pucca connecting road at the time of survey	63	93
Percentage of villages connected to block headquarters via public transport	46	60
Percentage of villages with all-weather intra-village road	66	83
Percentage of villages with motorable intra-village road	62	97
Percentage of villages with electricity connection in all hamlets	92	93
Percentage of villages with mobile network availability	73	93
Total number of villages	120	30

Table 4: Village school and college access, Jharkhand

Indicator	Adivasi	Non-Adivasi
Percentage of villages with primary school	87	87
Average distance of the nearest primary school (km) when it is not in village	3	1
Percentage of villages with secondary school	10	20
Average distance of the nearest secondary school (km) when it is not in village	6	5
Percentage of villages with higher secondary school	3	7
Average distance of the nearest higher secondary school (km) when it is not in village	11	8
Percentage of villages with a college	3	7
Average distance of the nearest college (km) when it is not in village	18	14
Total number of villages	120	30



Table 5: Villages in close proximity of mines, Jharkhand

Indicator	Adivasi	Non-Adivasi
Percentage of villages with mines nearby	10	13
Percentage of villages with contaminated waterbodies due to the presence of mines	17	25
Total number of villages	120	30

Table 6: Village toilet-use and sanitation, Jharkhand

Indicator	Adivasi	Non-Adivasi
Percentage of villages with growing trend in toilet use–	43	47
Percentage of villages with drainage system	14	47
Percentage of villages with closed drainage system	88	93
Total number of villages	120	30

Table 7: Village with water source, Jharkhand

Indicator	Adivasi	Non-Adivasi
Percentage of villages with tank/pond/reservoir	52	43
Villages with public drinking water sources	96	97
Villages with private drinking water sources	22	37
Total number of villages	120	30

Table 8: Village proximity to forest and CFR access, Jharkhand

Indicator	Adivasi	Non-Adivasi
Percentage of villages with forest nearby	80.0	57.0
Average distance of forest from village when not nearby	2.8	2.1
Percentage of villages that have applied for CFR	7.0	3.0
Percentage of villages that have received CFR	1.0	3.0
Total number of villages	120.0	30.0

Table 9: Village household welfare outreach, Jharkhand

Indicator	Adivasi	Non-Adivasi
Percentage of villages with ICDS/Anganwadi centre	84.0	80.0
Percentage of villages that receive routine child vaccination at ICDS/Anganwadi -	93.0	93.0
Percentage of villages with ASHA didi	89.0	93.0
Percentage of villages where ASHA didi has essential medicine kit	86.0	97.0
Percentage of villages that received medicine from ASHA didi	97.0	93.0
Average village distance from PHC – km	5.0	4.8
Average village distance from CHC – km	8.5	7.9
Average distance from nearest pharmacy shop – km	6.8	5.1
Percentage of village households associated with NGO	51.0	60.0
Percentage of villages with PDS shop	58.0	67.0
Percentage of villages with functional THR programme	55.0	57.0
Percentage of villages with functional mid-day meal scheme	50.0	53.0
Total number of villages	120.0	30.0

Table 10: Crop damage due to animal attack, Jharkhand

Indicator	Adivasi	Non-Adivasi
Percentage of villages that reported incidence of crop damage due to animal attack in last 12 months	30	23
Percentage of villages that encountered animal attack in the past 12 months	56	29
Total number of villages	120	30

Odisha

Table 11: Village access and communication, Odisha

Indicator	Adivasi	Non-Adivasi	PVTG
Average village distance from block headquarters (km)	14	8	20
Percentage of village having all-weather road to block headquarters	72	75	80
Percentage of villages with motorable connecting road at the time of survey (percentage)	80	100	80
Percentage of villages connected to block headquarters via public transport	57	80	60
Percentage of villages with all-weather intra-village road	70	90	80
Percentage of villages with motorable intra-village road at the time of survey	66	85	80

Indicator	Adivasi	Non-Adivasi	PVTG
Percentage of villages with electricity connection in all hamlets	86	95	100
Percentage of villages with mobile network availability	74	85	40
Total number of villages	93	20	5

Table 12: Village school and college access, Odisha

Indicator	Adivasi	Non-Adivasi	PVTG
Percentage of villages with primary school	78	100	100
Average distance of the nearest primary school (km) when it is not in village	2		
Percentage of villages with secondary school	5	25	40
Average distance of the nearest secondary school (km) when it is not in village	5	5	4
Percentage of villages with higher secondary school	11	20	40
Average distance of the nearest higher secondary school (km) when it is not in village	8	7	8
Percentage of villages with a college	2	5	20
Average distance of the nearest college (km) when it is not in village	13	11	18
Total number of villages	93	20	5

Table 13: Village in close proximity of mines, Odisha

Indicator	Adivasi	Non-Adivasi	PVTG
Percentage of villages located close to mines	3	0	0
Percentage of villages with mines nearby where waterbodies got contaminated due to presence of mines	33		
Total number of villages	93	20	5

Table 14: Village toilet use and sanitation, Odisha

Indicator	Adivasi	Non-Adivasi	PVTG
Percentage of villages with growing trend of toilet use	40	80	20
Percentage of villages with drainage system	40	30	60
Percentage of villages with closed drainage system	86	100	67
Total number of villages	93	20	5

Table 15: Village water source, Odisha

Indicator	Adivasi	Non-Adivasi	PVTG
Percentage of villages with tank/pond/reservoir	44	60	0
Percentage of villages with public drinking water sources	96	100	100
Percentage of villages with private drinking water sources	14	25	0
Total number of villages	93	20	5

Table 16: Village proximity to forest and CFR access, Odisha

Indicator	Adivasi	Non-Adivasi	PVTG
Percentage of villages in close proximity of forest	88.0	75.0	100.0
Average distance of forest when nearby	1.7	8.9	0.0
Percentage of villages that have applied for CFR	30.0	35.0	40.0
Percentage of villages that have received CFR	6.0	10.0	20.0
Total number of villages	93.0	20.0	5.0

Table 17: Village household welfare outreach

Indicator	Adivasi	Non-Adivasi	PVTG
Percentage of villages with ICDS/Anganwadi	89.0	90.0	100.0
Percentage of villages where ICDS/Anganwadi provide monthly vaccination	97.0	100.0	100.0
Percentage of villages where ASHA didi is a village resident	82.0	90.0	60.0
Percentage of villages where ASHA didi has essential medicine kit	90.0	95.0	80.0
Percentage of villages where households have received medicine from ASHA didi	98.0	89.0	100.0
Average village distance from PHC – km	8.6	6.2	8.0
Average village distance from CHC – km	10.7	6.8	23.2
Average village distance from the nearest pharmacy shop – km	7.4	6.0	8.4
Percentage of villages where households are associated with an NGO	34.0	50.0	100.0
Percentage of villages with PDS shop	31.0	45.0	40.0
Percentage of villages with functional THR programme	48.0	50.0	20.0
Percentage of villages with functional Mid-day meal scheme	48.0	50.0	60.0
Total number of villages	93.0	20.0	5.0

Table 18: Crop damage due to animal attack, Odisha

Indicator	Adivasi	Non-Adivasi	PVTG
Percentage of village that have reported incidence of crop damage due to animal attack in the last 12 months-	51	25	60
Percentage of villages that have reported increase in incidence of animal attack incidence in last 12 months	72	60	100
Total number of villages	93	20	5

Annexure

E : Survey findings based on land size



Landholding classification

Table 19: Definitions of landholding classification

Landless	No owned land
Marginal	Owned land up to 2.47 acres
Small	Owned land more than 2.47 acres and up to 4.94 acres
Small-medium	Owned land more than 4.94 acres and up to 9.88 acres
Medium	Owned land more than 9.88 acres and up to 24.70 acres
Large	Owned land more than 24.7 acres

Table 20.2: Household land ownership, Odisha

Land size	Adivasi (%)	Non-Adivasi (%)	PVTG
Landless	14.5	28.3	47.0
Marginal	69.7	58.3	47.0
Small	11.5	9.0	4.0
Small-medium	3.6	3.7	2.0
Medium	0.5	0.7	0.0
Large	0.2	0.0	0.0
Households surveyed	1,496.0	300.0	100.0

Table 20.1: Household land ownership, Jharkhand

Land size	Adivasi (%)	Non-Adivasi (%)
Landless	11.7	30.2
Marginal	77.1	64.8
Small	7.8	3.9
Small-medium	2.4	0.5
Medium	0.6	0.4
Large	0.5	0.2
Households surveyed	2,464.0	559.0

Table 21.1: Landownership among female headed households, Jharkhand

Land size	Adivasi (%)	Non-Adivasi (%)
Landless	12.5	35.0
Marginal	76.2	60.7
Small	8.2	3.4
Small-medium	2.0	0.5
Medium	0.3	0.5
Large	0.8	0.0
Households	911.0	206.0

Table 21.2: Landownership among female headed households, Odisha

Land size	Adivasi	Non-Adivasi	PVTG
Landless	14.9	34.5	50.7
Marginal	72.1	55.5	43.3
Small	9.9	8.4	3.0
Small-medium	2.3	0.8	3.0
Medium	0.3	0.8	0.0
Large	0.3	0.0	0.0
Households	596.0	119.0	67.0

Table 22.1: Average Landholding, Jharkhand

	Adivasi	Non-Adivasi
Average landholding	2.3	1.4
Average landholding for female headed households	2.6	1.1
Average landholding for all season irrigation	4.2	2.7
Median	1.0	1.0

Table 22.2: Average landholding, Odisha

	Adivasi	Non-Adivasi	PVTG
Average landholding	1.9	1.7	1.2
Average landholding for female headed households	1.8	1.3	1.2
Average landholding for all season irrigation	1.7	1.9	1.5
Median	1.0	1.0	1.0

Table 23.1: Association between irrigation and farm income, Jharkhand

	Adivasi	Non-Adivasi
Percentage of households with irrigation access for kharif crops	61.8	62.6
Kharif season —Average household irrigated landholding (acres)	2.6	1.6
Average landholding (acres)	2.3	1.4
Average income for those with kharif irrigation (Rs)	76,306.0	67,236.0
Average income for those with no kharif irrigation (Rs.)	72,561.0	71,221.0
Average income for those with no irrigation in any season (Rs)	71,486.0	74,120.0
Average income for those without land (Rs.)	79,263.0	73,914.0
Households with land	2,176.0	390.0

Table 23.2: Association between irrigation and farm income, Odisha

	Adivasi	Non-Adivasi	PVTG
Percentage of households having kharif irrigation	47.3	45.6	71.7
Average land size for those with kharif irrigation (acres)	1.9	1.4	1.4
Average land size (acres)	1.9	1.7	1.2
Average income for those with kharif irrigation	51,090.0	83,669.0	40,440.0
Average income for those with no kharif irrigation	75,243.0	81,274.0	32,949.0
Average income for those with no irrigation in any season	74,842.0	77,834.0	25,671.0
Average income for those without land	45,274.0	57,341.0	34,336.0
Households with land	1,279.0	215.0	53.0

Table 24.1: Irrigation access across landholding classes, Jharkhand

Landholding	Adivasi (%)	Non-Adivasi (%)
Marginal	61.7	62.4
Small	64.4	63.6
Small-medium	58.6	33.3
Medium	46.7	100.0
Large	76.9	100.0

Table 25.1: Association between landholding and farm income, Jharkhand

Landholding	Adivasi (%)	Non-Adivasi (%)
Marginal	70,352	68,423
Small	90,908	63,259
Small-medium	99,536	1,47,871
Medium	1,68,078	78,301
Large	2,79,346	39,919

Table 24.2: Irrigation access across landholding classes Odisha

Landholding	Adivasi (%)	Non-Adivasi (%)	PVTG
Marginal	50.0	48.6	68.1
Small	33.7	33.3	100.0
Small-medium	42.6	36.4	100.0
Medium	12.5	0.0	N.A.
Large	66.7	N.A.	N.A.

Table 25.2: Association between landholding and farm income, Odisha

Landholding	Adivasi (%)	Non-Adivasi (%)	PVTG
Marginal	52,357	76,764	34,232
Small	72,708	86,524	59,020
Small-medium	2,46,579	1,64,467	92,995
Medium	64,922	43,780	N.A.
Large	2,24,437	N.A.	N.A.

(Values indicate percentage of the households with access to irrigation)

Table 26.1: Relationship between landholding and farm income as a percentage of total income, Jharkhand

Landholding	Adivasi	Non-Adivasi
Landless*	37.4	32.1
Marginal	65.9	33.5
Small	57.9	67.4
Small-medium, medium and large	59.8	81.5

Table 26.2: Relationship between landholding and farm income as a percentage of total income, Odisha

Land size	Adivasi	Non-Adivasi	PVTG
Landless*	52.9	31.5	30.5
Marginal	51.0	31.9	60.0
Small	72.6	61.9	37.8
Small-medium, medium and large†	66.3	84.8	67.2

Table 27.1: Association between landholding and farm income (values in INR), Jharkhand

Land size	Adivasi	Non-Adivasi
Landless*	21,976	21,150
Marginal	21,329	17,319
Small	42,342	37,143
Small, Small-medium, medium and large†	91,141	73,906

Table 27.2: Association between landholding and farm income (values in INR), Odisha

Land size	Adivasi	Non-Adivasi	PVTG
Landless*	15,069	14,832	12,235
Marginal	18,831	15,587	16,619
Small	47,331	38,127	22,407
Small, Small-medium, medium and large†	49,867	1,23,585	60,695

* Landless farmers may earn from leased in lands or share cropping

† This grouping has all land groups other than Marginal, Small and Landless. Its average landholding is 2 Ha. Only a small number of households fall under this group (Small-medium, medium and large).

Table 28.1: Association between Adivasi household landholding and HH income percentiles, Jharkhand

Income Group (percentile)	Landless (%)	Marginal (%)	Small (%)	Small-Medium (%)	Medium (%)	Large (%)
0-20	20.5	18.7	17.3	20.9	22.7	0.0
20-40	21.6	20.7	20.9	19.2	17.7	0.0
40-60	9.9	16.8	16.8	25.1	31.4	0.0
60-80	8.6	15.5	13.8	25.9	36.2	0.0
80-100	0.0	20.0	26.7	20.0	33.3	0.0

Table 28.2: Association between Adivasi household landholding and HH income percentiles, Odisha

Income Group (percentile)	Landless (%)	Marginal (%)	Small (%)	Small-Medium (%)	Medium (%)	Large (%)
0-20	36.0	20.7	17.2	11.8	14.3	0.0
20-40	19.4	22.2	21.6	19.2	17.7	0.0
40-60	8.7	9.3	17.4	32.0	32.6	0.0
60-80	7.4	11.1	7.4	29.6	44.4	0.0
80-100	42.9	0.0	14.3	14.3	28.6	0.0

Table 29.1: Association between non-Adivasi household landholding and HH income percentiles, Jharkhand

Income Group (percentile)	Landless (%)	Marginal (%)	Small (%)	Small-Medium (%)	Medium (%)	Large (%)
0-20	13.1	20.0	21.2	24.4	21.2	0.0
20-40	22.4	19.9	19.7	18.6	19.4	0.0
40-60	27.3	22.7	18.2	18.2	13.6	0.0
60-80	0.0	33.3	0.0	0.0	66.7	0.0
80-100	0.0	50.0	0.0	0.0	50.0	0.0

Table 29.2: Association between non-Adivasi household landholding and HH income percentiles, Odisha

Income Group (percentile)	Landless (%)	Marginal (%)	Small (%)	Small-Medium (%)	Medium (%)	Large (%)
0-20	39.4	7	15.5	19.7	18.3	0.0
20-40	14.9	27.6	22.4	19.5	15.5	0.0
40-60	11.1	14.8	11.1	29.6	33.3	0.0
60-80	0.0	0.0	18.2	9.1	72.7	0.0
80-100	0.0	0.0	100.0	0.0	0.0	0.0

Table 30.1: Association of Adivasi household landholding with per-capita income percentiles, Jharkhand

Income Group (percentile)	Landless (%)	Marginal (%)	Small (%)	Small-Medium (%)	Medium (%)	Large (%)
0-20	18.7	15.8	17.3	21.6	26.6	0.0
20-40	21.4	20.6	20.1	20.0	17.9	0.0
40-60	13.1	19.4	23.0	19.4	25.1	0.0
60-80	12.1	15.5	25.9	15.5	31.0	0.0
80-100	0.0	40.0	13.3	6.7	40.0	0.0

Table 30.2: Association of Adivasi household landholding with per-capita income percentiles, Odisha

Income Group (percentile)	Landless (%)	Marginal (%)	Small (%)	Small-Medium (%)	Medium (%)	Large (%)
0-20	33.0	21.7	17.2	14.3	13.8	0.0
20-40	20.1	20.3	21.3	20.2	18.0	0.0
40-60	8.7	15.7	17.4	25.0	33.1	0.0
60-80	1.9	20.4	18.5	22.2	37.0	0.0
80-100	42.9	0.0	0.0	14.3	42.9	0.0

Table 31.1: Association of non-Adivasi HH landholding with per capita income percentiles, Jharkhand

Income Group (percentile)	Landless (%)	Marginal (%)	Small (%)	Small-Medium (%)	Medium (%)	Large (%)
0-20	13.1	21.2	21.2	20.0	24.4	0.0
20-40	22.7	19.1	18.6	21.1	18.6	0.0
40-60	31.8	18.2	31.8	9.1	9.1	0.0
60-80	0.0	33.3	0.0	0.0	66.7	0.0
80-100	0.0	50.0	50.0	0.0	0.0	0.0

Table 31.2: Association of non-Adivasi HH landholding with per capita income percentiles, Odisha

Income group (percentile)	Landless (in %)	Marginal (in %)	Small (in %)	small-medium (in %)	Medium (in %)	Large (in %)
0-20	35.2	12.7	12.7	22.5	16.9	0.0
20-40	16.7	25.9	20.7	21.3	15.5	0.0
40-60	11.1	11.1	25.9	11.1	40.7	0.0
60-80	0.0	0.0	27.3	9.1	63.6	0.0
80-100	0.0	0.0	100.0	0.0	0.0	0.0

Table 32.1: Gender segregated income percentiles for Adivasis, Jharkhand

Income Group (percentile)	Female Headed Households (in %)	Male Headed Households (in %)
0-20	17.3	18.7
20-40	21.1	19.5
40-60	19.8	20.9
60-80	18.9	22.1
80-100	22.8	18.8

Table 32.2: Gender segregated income groups for Adivasis, Odisha

Income group (percentile)	Female headed households (in %)	Male headed households (in %)
0-20	19.6	19.9
20-40	18.3	20.7
40-60	20.0	20.1
60-80	20.0	19.7
80-100	22.2	19.6

Table 33.1: Gender segregated income groups among non-Adivasis, Jharkhand

Income group (percentile)	Female headed households (in %)	Male headed households (in %)
0-20	22.4	16.5
20-40	17.9	20.5
40-60	17.9	21.2
60-80	20.9	20.2
80-100	20.9	21.5

Table 33.2: Gender segregated income groups among non-Adivasis, Odisha

Income group (percentile)	Female headed households (in %)	Male headed households (in %)
0-20	22.7	16.4
20-40	17.3	23.3
40-60	17.3	21.2
60-80	22.7	18.5
80-100	20.0	20.5

Table 34.1: Adivasi HH Head wise Income group, Jharkhand

Income group (percentile)	Female-headed households (in %)	Male headed households (in %)
0-20	16.6	19.5
20-40	20.0	20.2
40-60	19.2	21.7
60-80	21.8	20.0
80-100	22.4	18.7

Table 34.2: Adivasi female-headed and male-headed HH Income group Odisha

Income group (percentile)	Female-headed households (in %)	Male headed households (in %)
0-20	18.9	20.9
20-40	21.2	19.0
40-60	18.1	21.8
60-80	18.6	19.9
80-100	23.2	18.4

Table 35.1: Non-Adivasi female-headed and male-headed HH Income Jharkhand

Income group (percentile)	Female-headed households (in %)	Male headed households (in %)
0-20	21.4	17.5
20-40	18.4	19.9
40-60	19.9	19.9
60-80	18.9	21.2
80-100	21.4	21.5

Table 35.2: Non-Adivasi female-headed and male-headed HH Income, Odisha

Income group (percentile)	Female-headed households (in %)	Male headed households (in %)
0-20	20.0	17.8
20-40	19.1	21.9
40-60	13.6	24.0
60-80	25.5	17.1
80-100	21.8	19.2

Table 36.1: Association between Adivasi HH landholding and literacy scores (Individual literacy indicator is scored out of 10, total scored out of 30), Jharkhand

Land Size class	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
Landless	2.3	2.8	2.3	7.2	3.2	4	3.1	9.8
Marginal	2.6	3.0	2.6	7.9	3.6	4.4	3.7	11.4
Small	3.7	3.7	2.9	9.7	5.8	6.6	5.0	16.4
Small-medium	4.3	4.2	3.2	10.4	6.1	7.0	6.3	18.0
Medium	3.5	5.2	3.6	11.5	8.2	8.4	6.2	22.9
Large	2.7	2.5	1.7	6.8	9.8	10	7.0	26.8

Table 36.2: Association between Adivasi HH landholding and literacy scores (Individual literacy indicator is scored out of 10, total scored out of 30), Odisha

Land size class	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
Landless	1.8	1.6	1.6	4.7	1.8	2.0	1.5	5.1
Marginal	1.9	2.1	1.6	5.3	3.2	3.6	2.5	9.1
Small	2.2	2.5	2.2	6.5	4.9	5.1	3.8	13.5
Small-medium	1.9	2.3	2.2	6.2	4.4	4.9	3.4	12.5
Medium	0.8	2.0	1.2	4.0	5.0	4.4	2.0	11.4
Large	3.3	3.3	3.3	10	5.0	5.0	4.0	14.0

Table 37.1: Association between non-Adivasi HH landholding and literacy scores, Jharkhand

Land size class	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
Landless	3.4	4.3	3.5	10.8	4.6	6.1	5.3	15.2
Marginal	3.5	4.2	3.5	10.9	5.5	6.7	5.9	17.7
Small	3.7	4.3	4.3	12.3	6.0	7.2	6.2	18.2
Small-medium	5.0	10.0	8.0	23.0	7.5	10.0	9.0	26.5
Medium	0.0	0.0	0.5	0.5	9.2	6.0	2.0	17.2
Large								

Table 37.2: Association between non-Adivasi HH landholding and literacy scores, Odisha

Land size class	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
Landless	2.6	3.1	2.4	7.6	3.2	4.5	4.2	11.2
Marginal	3.3	3.7	2.9	9.3	4.7	5.3	3.9	13.7
Small	5.6	6.2	5.3	17.0	6.1	7.5	5.8	19.4
Small-medium	6.2	7.2	7.1	20.6	7.4	7.8	7.6	22.8
Medium	3.8	4.0	3.5	11.2	1.2	5.0	2.0	8.2
Large								

Table 38.1: Association between Adivasi HH landholding and food security, Jharkhand

Land Size class	Food Secure (in %)	Mildly Food insecure (in %)	Moderately Food insecure (in %)	Severely food insecure (in %)
Landless	42.2	12.8	14.0	31.0
Marginal	47.4	13.4	14.2	25.1
Small	49.4	15.5	12.6	22.4
Small-medium	51.0	21.6	19.6	7.8
Medium	21.4	21.4	7.1	50.0
Large	45.5	9.1	9.1	36.4

Table 38.2: Association between Adivasi HH landholding and food security, Odisha

Land Size class	Food Secure (in %)	Mildly Food insecure (in %)	Moderately Food insecure (in %)	Severely food insecure (in %)
Landless	39.9	17.3	26.2	16.7
Marginal	42.0	24.0	21.8	12.1
Small	63.6	13.6	15.9	6.8
Small-medium	66.7	21.4	11.9	0.0
Medium	80.0	0.0	20.0	0.0
Large	0.0	0.0	66.7	33.3

2. Table 39.1: Association between non-Adivasi HH landholding and food security, Jharkhand

Land Size class	Food Secure (in %)	Mildly Food insecure (in %)	Moderately Food insecure (in %)	Severely food insecure (in %)
Landless	49.4	16.2	12.3	22.1
Marginal	55.5	13.6	12.8	18.1
Small	70.6	0.0	17.6	11.8
Small-medium	50.0	50.0	0.0	0.0
Medium	50.0	0.0	50.0	0.0
Large				

Table 39.2: Association between non-Adivasi HH landholding and food security, Odisha

Land Size class	Food Secure (in %)	Mildly Food insecure (in %)	Moderately Food insecure (in %)	Severely food insecure (in %)
Landless	27.7	21.5	26.2	24.6
Marginal	52.6	14.1	19.9	13.5
Small	59.1	27.3	9.1	4.5
Small-medium	100.0	0.0	0.0	0.0
Medium	0.0	50.0	0.0	50.0
Large				

Table 40.1: Association of Adivasi HH diet quality and landholding, Jharkhand

Land Size class	Poor ¹³ (<=21)	Borderline (21-35)	Acceptable (>35)	Total
Landless	7.9	55.6	36.5	252.0
Marginal	3.6	54.8	41.6	1,701.0
Small	1.2	45.1	53.8	173.0
Small-medium	0.0	45.3	54.7	53.0
Medium	0.0	35.7	64.3	14.0
Large	0.0	30.8	69.2	13.0

Table 40.2: Association of Adivasi HH diet quality and landholding, Odisha

Land Size class	Poor (<=21)	Borderline (21-35)	Acceptable (>35)	Total
Landless	11.6	42.6	45.8	155.0
Marginal	6.7	34.3	59.0	832.0
Small	4.7	22.5	72.9	129.0
Small-medium	0.0	15.4	84.6	39.0
Medium	0.0	20.0	80.0	5.0
Large	0.0	100.0	0.0	3.0

Table 41.1: Association of HH landholding and diet quality among non-Adivasis, Jharkhand

Land Size class	Poor ¹⁴ (<=21)	Borderline (21-35)	Acceptable (>35)	Total
Landless	0.7	28.3	71.1	152.0
Marginal	0.6	32.4	67.0	324.0
Small	0.0	38.9	61.1	18.0
Small-medium	0.0	0.0	100.0	2.0
Medium	0.0	50.0	50.0	2.0
Large				0.0

¹³ Check Annexure J for the Diet quality categories¹⁴ See Annexure:J for the categories

Table 41.2: Association of HH landholding and diet quality among non-Adivasis, Odisha

Land Size class	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
Landless	1.6	42.9	55.6	63.0
Marginal	4.1	20.7	75.2	145.0
Small	0.0	9.5	90.5	21.0
Small-medium	0.0	0.0	100.0	9.0
Medium	0.0	0.0	100.0	2.0
Large				0.0

Table 42.1: Relationship between Adivasi HH landholding and education of the head of household, Jharkhand

Education attainment	Landless	Marginal	Small	Small-medium	Medium	Large
No school education	62.6	53.7	40.1	30.6	50.0	46.2
less than primary	1.9	4.3	3.6	2.0	0.0	15.4
Primary	7.5	8.8	5.4	6.1	0.0	15.4
less than matriculation and more than primary	15.1	17.8	26.3	32.7	20.0	7.7
Matriculation	6.8	7.6	12.6	18.4	10.0	15.4
more than matriculation and less than HSC	2.3	2.5	3.6	0.0	10.0	0.0
HSC	2.3	3.4	4.8	6.1	0.0	0.0
attended college but did not complete	0.4	0.7	1.2	0.0	0.0	0.0
college graduate and incomplete post-graduation	1.1	0.7	2.4	4.1	10.0	0.0
Postgraduate	0.0	0.2	0.0	0.0	0.0	0.0
more than post-graduation	0.0	0.4	0.0	0.0	0.0	0.0
professional diploma	0.0	0.0	0.0	0.0	0.0	0.0
Total	265.0	1,656.0	167.0	49.0	10.0	130.0

Table 42.2: Relationship between Adivasi HH landholding and education of the head of household, Odisha

Education attainment	Landless	Marginal	Small	Small-medium	Medium	Large
No school education	68.1	58.8	56.1	26.0	25.0	100.0
less than primary	5.3	6.3	7.9	18.0	25.0	0.0
Primary	6.8	8.6	6.7	14.0	25.0	0.0
less than matriculation and more than primary	12.1	15.1	15.9	30.0	0.0	0.0
Matriculation	3.4	6.0	8.5	6.0	25.0	0.0
more than matriculation and less than HSC	1.9	1.9	2.4	0.0	0.0	0.0
HSC	1.0	2.0	2.4	2.0	0.0	0.0
attended college but did not complete	0.0	0.2	0.0	4.0	0.0	0.0
college graduate and incomplete post-graduation	1.4	0.2	0.0	0.0	0.0	0.0
Postgraduate	0.0	0.4	0.0	0.0	0.0	0.0
more than post-graduation	0.0	0.2	0.0	0.0	0.0	0.0
professional diploma	0.0	0.1	0.0	0.0	0.0	0.0
Total	207.0	945.0	164.0	50.0	8.0	2.0

Table 43.1: Relationship between non-Adivasi HH landholding and education of the head of household, Jharkhand

Education attainment	Landless	Marginal	Small	Small-medium	Medium	Large
No school education	40.5	40.9	26.3	0.0	50.0	100.0
less than primary	3.1	3.1	5.3	33.3	0.0	0.0
Primary	8.0	7.2	5.3	0.0	0.0	0.0
less than matriculation and more than primary	28.2	18.1	36.8	33.3	0.0	0.0
Matriculation	13.5	15.6	15.8	0.0	0.0	0.0
more than matriculation and less than HSC	0.0	3.4	0.0	0.0	0.0	0.0
HSC	3.7	5.6	0.0	0.0	0.0	0.0
attended college but did not complete	0.6	0.6	5.3	33.3	0.0	0.0
college graduate and incomplete post-graduation	1.8	2.8	5.3	0.0	50.0	0.0
Postgraduate	0.6	1.6	0.0	0.0	0.0	0.0
more than post-graduation	0.0	0.9	0.0	0.0	0.0	0.0
professional diploma	0.0	0.0	0.0	0.0	0.0	0.0
Total	163.0	320.0	19.0	3.0	2.0	1.0

Table 43.2: Relationship between non-Adivasi HH landholding and education of the head of household, Odisha

Education attainment	Landless	Marginal	Small	Small-medium	Medium	Large
No school education	52.6	42.6	15.4	9.1	0.0	
less than primary	5.1	7.1	3.8	0.0	0.0	
Primary	6.4	9.0	3.8	0.0	0.0	
less than matriculation and more than primary	24.4	24.5	53.8	18.2	50.0	
Matriculation	1.3	6.5	7.7	45.5	50.0	
more than matriculation and less than HSC	2.6	3.9	11.5	9.1	0.0	
HSC	1.3	1.9	3.8	9.1	0.0	
attended college but did not complete	1.3	1.3	0.0	0.0	0.0	
college graduate and incomplete post-graduation	1.3	0.6	0.0	0.0	0.0	
Postgraduate	3.8	2.6	0.0	9.1	0.0	
more than post-graduation	0.0	0.0	0.0	0.0	0.0	
professional diploma	0.0	0.0	0.0	0.0	0.0	
Total	78.0	155.0	26.0	11.0	2.0	0.0

Table 44.1: Association between landholding and head circumference of children among Adivasis, Jharkhand

Children with head circumference not between 3-97 percentiles	Landless	Marginal	Small	Small-medium	Medium	Large
Male %	54.5	48.4	45.5	50.0	66.7	100
Total Male children	44.0	246.0	33.0	6.0	3.0	3.0
Female %	38.3	48.0	48.1	25.0	100.0	50.0
Total Female children	47.0	227.0	27.0	8.0	2.0	2.0



Table 44.2: Association between landholding and head circumference of children among Adivasis, Odisha

Children with head circumference not between 3-97 percentiles	Landless	Marginal	Small	Small-medium	Medium	Large
Male %	64.7	48.6	54.5	80.0		
Total Male children	34.0	177.0	33.0	5.0	0.0	0.0
Female %	72.0	33.1	44.0	50.0	100.0	100.0
Total Female children	25.0	160.0	25.0	6.0	1.0	1.0

Table 45.1: Relationship between landholding and Head circumference of children among non-Adivasis, Jharkhand

Children with head circumference not between 3-97 percentiles	Landless	Marginal	Small	Small-medium	Medium	Large
Male %	33.3	44.4	0.0			
Total Male children	18.0	36.0	2.0	0.0	0.0	0.0
Female %	47.8	59.5			0.0	
Total Female children	23.0	37.0	0.0	0.0	1.0	0.0

Table 45.2: Relationship between landholding and Head circumference of children among non-Adivasis, Odisha

Children with head circumference not between 3-97 percentiles	Landless	Marginal	Small	Small-medium	Medium	Large
Male %	40	55	0	0		
Total Male children	5	20	1	3	0	0
Female %	60	35		100		
Total Female children	10	20	0	1	0	0

Table 46.1: Adivasi HH landholding types and relative distance form forests, Jharkhand

Forest Access	Landless	Marginal	Small	Small-medium	Medium	Large
Average distance (Km)	6.7	3.8	2.9	1.0	5.5	4.1
Depends on forest for livelihood (%)	38.9	55.8	48.7	60.3	53.3	61.5
Households	288.0	1,899.0	191.0	58.0	15.0	13.0

Table 46.2: Adivasi HH landholding types and relative distance form forests, Odisha

Forest Access	Landless	Marginal	Small	Small-medium	Medium	Large
Average distance (Km)	2.4	3.5	4.7	6.3	6.1	1.0
Depends on forest for livelihood (%)	81.6	76.2	64.0	63.0	50.0	100.0
Households	217.0	1,042.0	172.0	54.0	8.0	3.0

Table 47.1: Non-Adivasi HH landholding types and relative distance from forest, Jharkhand

Forest Access	Landless	Marginal	Small	Small-medium	Medium	Large
Average distance (Km)	0.4	1.8	3.0	14.7	0.5	1.0
Depends on forest for livelihood (%)	14.8	33.1	54.5	0.0	50.0	100.0
Households	169.0	362.0	22.0	3.0	2.0	1.0

Table 47.2: Non-Adivasi HH landholding types and relative distance from forest, Odisha

Forest Access	Landless	Marginal	Small	Small-medium	Medium	Large
Average distance (Km)	2.4	3.7	6.5	11.3	4.0	
Depends on forest for livelihood (%)	63.5	70.3	33.3	27.3	50.0	
Households	85.0	175.0	27.0	11.0	2.0	0



Annexure

F. Forest Distance Based Results



Table 48.1: Income groups and distance from forests, Jharkhand

Sl. No	Income group (percentile)	0-1 km	1-2 km	2-5 km	More than 5 km
1	0-20	20.3	21.2	21.0	16.9
2	20-40	22.3	18.9	17.8	17.1
3	40-60	19.4	22.8	19.6	18.3
4	60-80	18.3	20.5	19.9	21.9
5	80-100	18.5	16.3	21.5	24.5

Table 48.2: Income groups and distance from forests, Odisha

Sl No.	Income group	0-1 km	1-2 km	2-5 km	More than 5 km
1	0-20	20.7	18.1	28.0	14.3
2	20-40	18.3	26.5	19.6	19.4
3	40-60	19.7	19.6	18.7	20.2
4	60-80	20.6	14.7	12.1	23.6
5	80-100	19.0	21.1	18.7	22.1

Table 49.1: Non-Adivasi household food security status and distance from forest, Jharkhand

Forest distance	Food Secure ¹	Mildly Food insecure	Moderately Food insecure	Severely food insecure
0-1 km	56.6	9.7	13.3	20.4
1-2 km	54.9	9.8	11.0	24.4
2-5 km	51.1	19.3	11.4	18.2
More than 5 km	45.6	22.4	16.0	16.0

¹ See Annexure:K for categories

Table 49.2: Non-Adivasi household food security status and distance from forest, Odisha

Forest distance	Food Secure	Mildly Food insecure	Moderately Food insecure	Severely food insecure
0-1 km	39.1	21.8	29.1	10.0
1-2 km	37.5	14.6	8.3	39.6
2-5 km	34.9	18.6	30.2	16.3
More than 5 km	86.8	7.5	1.9	3.8

Table 50.1: Adivasi household food security status and distance from forest, Jharkhand

Forest distance	Food Secure	Mildly Food insecure	Moderately Food insecure	Severely food insecure
0-1 km	44.4	14.6	13.3	27.7
1-2 km	52.1	8.5	17.5	21.9
2-5 km	49.4	19.5	12.5	18.5
More than 5 km	45.8	11.0	13.8	29.4

Table 50.2: Adivasi household food security status and from forest, Odisha

Forest distance	Food Secure	Mildly Food insecure	Moderately Food insecure	Severely food insecure
0-1 km	44.2	22.2	21.6	12.0
1-2 km	43.6	17.9	13.6	25.0
2-5 km	33.9	23.7	23.7	18.6
More than 5 km	51.0	21.8	25.5	1.6

Table 51.1: Effect of HH distance from forest on diet quality among non-Adivasis, Jharkhand

Forest distance	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
0-1 km	1.6	31.4	67.0	191.0
1-2 km	0.0	27.7	72.3	83.0
2-5 km	0.0	33.3	66.7	84.0
More than 5 km	0.0	32.2	67.8	121.0

Table 51.2: Effect of HH distance from forest on diet quality among non-Adivasis Odisha

Forest distance	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
0-1 km	3.8	28.3	67.9	106.0
1-2 km	6.8	22.7	70.5	44.0
2-5 km	0.0	25.0	75.0	40.0
More than 5 km	0.0	18.0	82.0	50.0

Table 52.1: Effect of HH distance from forest on diet quality among Adivasis, Jharkhand

Forest distance	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
0-1 km	3.6	52.8	43.6	987.0
1-2 km	4.4	59.3	36.3	383.0
2-5 km	3.1	55.2	41.7	384.0
More than 5 km	4.3	49.9	45.9	447.0

Table 52.2: Effect of HH distance from forest on diet quality among Adivasis, Odisha

Forest distance	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
0-1 km	8.1	34.0	57.9	744.0
1-2 km	4.7	32.6	62.8	129.0
2-5 km	8.3	33.3	58.3	60.0
More than 5 km	3.9	32.6	63.5	230.0

Table 53.1: Non-Adivasi women's diet quality and HH distance from forests, Jharkhand

Forest distance	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
0-1 km	1.0	36.1	62.8	191.0
1-2 km	1.2	28.9	69.9	83.0
2-5 km	0.0	34.5	65.5	84.0
More than 5 km	0.0	33.9	66.1	121.0

Table 53.2: Non-Adivasi women's diet quality and HH distance from forests, Odisha

Forest distance	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
0-1 km	6.6	27.4	66.0	106.0
1-2 km	4.5	34.1	61.4	44.0
2-5 km	2.5	27.5	70.0	40.0
More than 5 km	6.0	20.0	74.0	50.0

Table 54.1: Adivasi women's diet quality and HH distance from forests, Jharkhand

Forest distance	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
0-1 km	3.4	51.7	44.9	987.0
1-2 km	4.7	59.3	36.0	383.0
2-5 km	3.1	54.2	42.7	384.0
More than 5 km	4.3	50.3	45.4	447.0



Table 54.2: Adivasi women's diet quality and HH distance from forests, Odisha

Forest distance	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
0-1 km	9.0	34.8	56.2	744.0
1-2 km	4.7	37.2	58.1	129.0
2-5 km	8.3	36.7	55.0	60.0
More than 5 km	6.5	32.2	61.3	230.0

Table 55.1: Impact of distance form forests on literacy levels, non-Adivasi homes, Jharkhand

Forest distance	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-1 km	3.0	4.2	3.6	10.4	5.1	6.6	5.6	16.7
1-2 km	2.9	3.4	2.2	8.4	3.7	4.5	4.4	12.1
2-5 km	4.1	5.0	4.5	13.1	6.4	7.4	6.8	20.3
More than 5 km	3.7	3.9	3.4	10.7	5.5	6.8	5.6	17.3

Table 55.2: Impact of distance form forests on literacy levels, non-Adivasi homes, Odisha

Forest distance	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-1 km	4.1	4.3	3.0	10.8	5.1	5.2	3.7	13.6
1-2 km	2.0	2.4	1.8	6.0	2.1	3.9	2.6	8.3
2-5 km	4.5	5.2	4.7	14	5.5	7.0	6.7	19.2
More than 5 km	2.8	3.5	3.4	9.1	4.9	5.8	4.5	15.0

Table 56.1: Impact of distance form forests on literacy levels, Adivasi homes, Jharkhand

Forest distance	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-1 km	2.6	3.2	2.6	8.1	3.4	4.3	3.5	10.8
1-2 km	2.4	3.0	2.4	7.7	4.1	4.7	3.7	12.3
2-5 km	3.0	3.3	2.7	8.8	5.0	5.7	5.0	15.3
More than 5 km	2.6	2.9	2.5	7.7	3.8	4.5	3.9	11.8

Table 56.2: Impact of distance form forests on literacy levels, Adivasi homes, Odisha

Forest distance	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-1 km	1.8	2	1.6	5.1	2.9	3.3	2.4	8.4
1-2 km	1.4	1.4	1.2	3.7	3.3	3.3	2.1	8.4
2-5 km	2.8	2.7	2.0	7.0	3.2	2.8	1.8	7.7
More than 5 km	2.5	2.7	2.5	7.2	5.0	5.5	3.9	14.2



Annexure

G. Income Groups

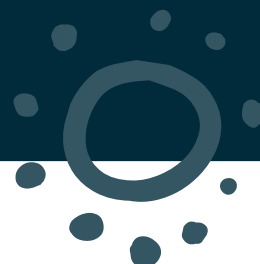


Table 57.1: Distance from forests and Adivasi HH income, Jharkhand

Forest Access	0-20	20-40	40-60	60-80	80-100
Average distance (Km)	3.8	3.6	3.6	4.2	5.0
Depends on forest for livelihood (%)	55.6	55.9	55.6	52.0	49.6
Households	489.0	488.0	489.0	487.0	490.0

Table 57.2: Distance from forests and Adivasi HH income, Odisha

Forest Access	0-20	20-40	40-60	60-80	80-100
Average distance (Km)	3.1	3.4	3.8	4.0	3.8
Depends on forest for livelihood (%)	84.1	73.6	73.9	74.9	68.9
Households	296.0	295.0	295.0	295.0	296.0

Table 58.1: Distance from forests and non-Adivasi HH income, Jharkhand

Forest Access	0-20	20-40	40-60	60-80	80-100
Average distance (Km)	3.1	5.0	4.6	3.2	-5.1
Depends on forest for livelihood (%)	55.6	33.0	21.1	20.0	15.5
Households	108.0	112.0	109.0	110.0	110.0

Table 58.2: Distance from forests and non-Adivasi HH income, Odisha

Forest Access	0-20	20-40	40-60	60-80	80-100
Average distance (Km)	2.8	2.9	5.0	4.5	4.4
Depends on forest for livelihood (%)	73.7	71.9	66.1	54.4	50.9
Households	57.0	57.0	56.0	57.0	57.0

**Table 59.1: Impact of HH income on education in Adivasi households, Jharkhand**

household head education	0-20	20-40	40-60	60-80	80-100
No school education	56.8	57.4	52.5	51.0	49.2
less than primary	3.1	5.6	3.4	4.7	3.0
Primary	9.0	7.2	8.0	7.6	10.0
less than matriculation and more than primary	18.6	16.9	20.3	18.4	17.5
Matriculation	6.7	5.6	7.8	10.6	10.3
more than matriculation and less than HSC	2.1	2.3	3.4	1.8	2.7
HSC	1.8	3.5	3.2	3.6	3.9
attended college but did not complete	0.8	0.2	0.5	0.9	0.9
college graduate and incomplete post-graduation	1.0	1.4	0.5	0.2	2.1
Postgraduate	0.0	0.0	0.5	0.0	0.2
more than post-graduation	0.0	0.0	0.0	1.1	0.2
professional diploma	0.0	0.0	0.0	0.0	0.0
Total	387.0	432.0	438.0	445.0	439.0

Table 59.2: Impact of HH income on education in Adivasi households, Odisha

household head education	0-20	20-40	40-60	60-80	80-100
No school education	57.1	39.6	38.0	42.3	26.9
less than primary	6.1	7.5	14.0	1.9	1.9
Primary	10.2	9.4	6.0	11.5	1.9
less than matriculation and more than primary	18.4	32.1	22.0	28.8	28.8
Matriculation	0.0	5.7	8.0	3.8	17.3
more than matriculation and less than HSC	2.0	1.9	8.0	3.8	7.7
HSC	4.1	0.0	0.0	3.8	3.8
attended college but did not complete	2.0	0.0	2.0	0.0	1.9
college graduate and incomplete post-graduation	0.0	0.0	0.0	0.0	3.8
Postgraduate	0.0	3.8	2.0	3.8	5.8
more than post-graduation	0.0	0.0	0.0	0.0	0.0
professional diploma	0.0	0.0	0.0	0.0	0.0
Total	49.0	53.0	50.0	52.0	52.0

Table 60.1: Impact of HH income on education in non-Adivasi households, Jharkhand

household head education	0-20	20-40	40-60	60-80	80-100
No school education	46.8	43.3	38.4	37.3	36.8
less than primary	2.1	2.1	5.1	2.9	4.7
Primary	8.5	3.1	12.1	8.8	3.8
less than matriculation and more than primary	23.4	23.7	23.2	20.6	18.9
Matriculation	10.6	15.5	8.1	18.6	19.8
more than matriculation and less than HSC	2.1	3.1	2.0	2.9	0.9
HSC	3.2	4.1	3.0	6.9	5.7
attended college but did not complete	0.0	1.0	1.0	1.0	1.9
college graduate and incomplete post-graduation	3.2	2.1	6.1	1.0	1.9
Postgraduate	0.0	0.0	0.0	0.0	5.7
more than post-graduation	0.0	2.1	1.0	0.0	0.0
professional diploma	0.0	0.0	0.0	0.0	0.0
Total	94.0	97.0	99.0	102.0	106.0

Table 60.2: Impact of HH income on education in non-Adivasi households, Odisha

household head education	0-20	20-40	40-60	60-80	80-100
No school education	57.1	39.6	38.0	42.3	26.9
less than primary	6.1	7.5	14.0	1.9	1.9
Primary	10.2	9.4	6.0	11.5	1.9
less than matriculation and more than primary	18.4	32.1	22.0	28.8	28.8
Matriculation	0.0	5.7	8.0	3.8	17.3
more than matriculation and less than HSC	2.0	1.9	8.0	3.8	7.7
HSC	4.1	0.0	0.0	3.8	3.8
attended college but did not complete	2.0	0.0	2.0	0.0	1.9
college graduate and incomplete post-graduation	0.0	0.0	0.0	0.0	3.8
Postgraduate	0.0	3.8	2.0	3.8	5.8
more than post-graduation	0.0	0.0	0.0	0.0	0.0
professional diploma	0.0	0.0	0.0	0.0	0.0
Total	49.0	53.0	50.0	52.0	52.0

**Table 61.1: Head circumference of children by income class, Adivasi households, Jharkhand**

Children with head circumference not between 3-97 percentiles	0-20	20-40	40-60	60-80	80-100
Male %	50.0	51.5	43.2	50.8	52.2
Total Male children	60.0	68.0	74.0	63.0	69.0
Female %	51.9	45.8	55.8	45.2	32.3
Total Female children	52.0	59.0	77.0	62.0	62.0

Table 61.2: Head circumference of children by income class, Adivasi households, Odisha

Children with head circumference not between 3-97 percentiles	0-20	20-40	40-60	60-80	80-100
Male %	51.0	62.2	52.5	51.8	46.5
Total Male children	49.0	37.0	61.0	56.0	43.0
Female %	54.5	44.1	35.6	28.3	36.4
Total Female children	44.0	34.0	45.0	46.0	44.0

Table 62.1: Head circumference of children by income class, non-Adivasi households, Jharkhand

Children with head circumference not between 3-97 percentiles	0-20	20-40	40-60	60-80	80-100
Male %	33.3	0.0	50.0	78.6	18.2
Total Male children	12.0	8.0	10.0	14.0	11.0
Female %	69.2	57.1	69.2	50.0	20.0
Total Female children	13.0	7.0	13.0	16.0	10.0

Table 62.2: Head circumference of children by income class, non-Adivasi households, Odisha

Children with head circumference not between 3-97 percentiles	0-20	20-40	40-60	60-80	80-100
Male %	66.7	60.0	50.0	42.9	33.3
Total Male children	3.0	5.0	4.0	7.0	9.0
Female %	25.0	20.0	57.1	37.5	83.3
Total Female children	4.0	5.0	7.0	8.0	6.0

Table 63.1: Diet quality by income class Adivasi households, Jharkhand

Income group	Poor (≤ 21)	Borderline (21-35)	Acceptable (>35)	Total
0-20	5.2	60.8	34	421.0
20-40	6.0	59.1	34.9	435.0
40-60	3.4	50.8	45.8	437.0
60-80	2.4	54.9	42.7	452.0
80-100	1.1	43.1	55.7	445.0

Table 63.2: Diet quality by income class Adivasi households, Odisha

Income group	Poor (<=21)	Borderline (21-35)	Acceptable (>35)	Total
0-20	12.2	39.5	48.3	205.0
20-40	10.3	32.2	57.5	214.0
40-60	4.1	35.4	60.5	243.0
60-80	4.4	31.0	64.5	248.0
80-100	4.1	31.3	64.6	243.0

Table 64.1: Diet quality by income class, non-Adivasi households, Jharkhand

Income group	Poor (<=21)	Borderline (21-35)	Acceptable (>35)	Total
0-20	3.0	46.5	50.5	101.0
20-40	0.0	35.4	64.6	99.0
40-60	0.0	25.8	74.2	93.0
60-80	0.0	25.5	74.5	98.0
80-100	0.0	22.4	77.6	98.0

Table 64.2: Diet quality by income class, non-Adivasi household, Odisha

Income group	Poor (<=21)	Borderline (21-35)	Acceptable (>35)	Total
0-20	0.0	40.9	59.1	44.0
20-40	2.2	26.1	71.7	46.0
40-60	0.0	20.0	80.0	45.0
60-80	12.0	14.0	74.0	50.0
80-100	0.0	14.0	86.0	43.0

Table 65.1: Food security by income class, Adivasi households, Jharkhand

Income group	Food Secure	Mildly Food insecure	Moderately Food insecure	Severely food insecure
0-20	45.5	11.4	19.5	23.6
20-40	47.2	14.7	15.6	22.5
40-60	44.9	16.1	13.2	25.9
60-80	46.0	14.6	11.5	27.9
80-100	50.4	11.4	10.7	27.5

Table 65.2: Food security by income class, Adivasi households, Odisha

Income group	Food Secure	Mildly Food insecure	Moderately Food insecure	Severely food insecure
0-20	43.4	19.2	21.9	15.5
20-40	44.1	21.4	21.4	13.1
40-60	40.8	22.0	26.0	11.2
60-80	44.7	23.3	21.7	10.3
80-100	50.4	23.0	17.9	8.7



Table 66.1: Food security by income class, non-Adivasi households, Jharkhand

Income group	Food Secure	Mildly Food insecure	Moderately Food insecure	Severely food insecure
0-20	55.3	19.4	13.6	11.7
20-40	42.9	14.3	17.1	25.7
40-60	53.8	15.1	8.6	22.6
60-80	57.8	11.8	9.8	20.6
80-100	58.0	11.0	16.0	15.0

Table 66.2: Food security by income class, non-Adivasi households, Odisha

Income group	Food Secure	Mildly Food insecure	Moderately Food insecure	Severely food insecure
0-20	34.7	18.4	18.4	28.6
20-40	45.8	8.3	27.1	18.8
40-60	59.2	10.2	20.4	10.2
60-80	42.0	24.0	22.0	12.0
80-100	67.4	21.7	6.5	4.3

Table 67.1: Variation in literacy levels by income class, Adivasi households, Jharkhand

Income group	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-20	2.1	2.5	1.9	6.3	3.2	3.9	2.9	9.6
20-40	2.1	2.4	2.0	6.3	3.8	4.3	3.8	11.5
40-60	2.4	2.6	2.3	7.1	3.9	4.1	3.3	10.9
60-80	2.9	3.6	2.9	9.0	3.6	4.7	4.2	12.3
80-100	3.8	4.4	3.8	11.5	4.6	5.9	4.9	14.9

Table 67.2: Variation in literacy levels by income class, Adivasi households, Odisha

Income group	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-20	1.3	1.3	1.3	3.7	2.3	2.6	1.8	6.7
20-40	1.6	1.7	1.3	4.4	3.1	3.5	2.3	8.7
40-60	1.6	1.7	1.6	4.7	3.2	3.6	2.7	9.4
60-80	1.9	2.3	1.8	5.6	3.8	4.3	3.0	10.7
80-100	3.1	3.1	2.7	8.2	4.1	4.4	3.3	11.3

Table 68.1: Variation in literacy levels by income class, non-Adivasi households, Jharkhand

Income group	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-20	2.5	3.3	2.4	7.8	4.0	5.4	4.4	13.1
20-40	3.3	3.8	3.4	10.4	5.1	5.4	5.1	15.5
40-60	3.8	4.4	3.8	11.7	5.2	6.5	5.9	17.0
60-80	3.5	4.7	3.7	11.4	5.3	7.4	6.6	18.9
80-100	4.3	5.0	4.2	13.1	6.6	8.0	6.5	20.3

Table 68.2: Variation in literacy levels by income class, non-Adivasi households, Odisha

Income group	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-20	2.2	2.5	1.7	6.0	3.3	4.6	3.5	11.0
20-40	2.7	3.6	3.1	8.5	3.6	5.0	3.7	11.6
40-60	2.8	2.9	2.3	7.6	4.2	4.9	3.3	12.5
60-80	4.1	4.6	3.7	12.0	5.0	5.1	4.3	14.4
80-100	6.0	6.7	5.6	18	7.7	8.6	7.2	23.3

Table 69.1: Literacy variation by per capita income, Adivasi households, Jharkhand

pci group	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-20	2.0	2.4	1.9	6.0	3.2	4.0	2.9	9.7
20-40	2.4	2.6	2.0	6.8	3.8	4.1	3.4	11.0
40-60	2.6	3.1	2.5	7.8	4.3	4.8	4.1	12.8
60-80	2.7	3.3	2.9	8.6	3.6	4.6	4.1	12.1
80-100	3.6	4.1	3.6	10.9	4.1	5.4	4.5	13.7

Table 69.2: Literacy variation by per capita income, Adivasi households, Odisha

pci group	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-20	1.4	1.5	1.3	4.1	2.8	3.2	1.9	7.8
20-40	1.5	1.7	1.3	4.3	3.2	3.6	2.5	9.2
40-60	1.6	1.7	1.6	4.6	3.0	3.4	2.4	8.6
60-80	1.9	2.3	1.9	5.6	3.4	3.8	3.0	9.8
80-100	3.1	3.0	2.6	8.1	4.3	4.6	3.5	12.1

Table 70.1: Literacy variation by per capita income, non-Adivasi households, Jharkhand

pci group	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-20	2.6	3.7	2.6	8.5	4.2	5.7	5.0	14.1
20-40	3.3	3.4	3.1	9.7	6.0	6.3	5.2	17.4
40-60	3.1	4.3	3.6	10.6	3.8	5.2	5.1	13.5
60-80	3.6	4.4	3.5	11.3	6.1	8.0	6.5	19.9
80-100	4.5	5.2	4.6	13.9	5.9	7.3	6.7	19.7

Table 70.2: Literacy variation by per capita income, non-Adivasi households, Odisha

pci group	Female reading	Female writing	Female numeracy	Female total	Male reading	Male writing	Male numeracy	Male total
0-20	2.7	2.9	2.3	7.3	3.2	4.4	3.2	10.3
20-40	2.3	3.4	2.5	7.5	3.8	5.5	4.2	12.9
40-60	2.6	2.9	2.6	7.9	4.3	4.4	3.4	12.1
60-80	3.8	3.8	2.9	9.9	5.4	5.9	4.1	15.5
80-100	6.5	7.1	5.9	19.5	7.0	7.9	7.0	21.6



Annexure

H. Feedback on government and non-government agencies

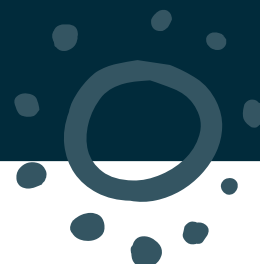


Table 71.1: Adivasi household distance from forests and life improvement satisfaction, Jharkhand

Forest distance	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-1 km	55.9	60.1	78.3
1-2 km	55.9	57.6	83.2
2-5 km	54.3	54.3	81.3
More than 5 km	43.0	41.6	73.5

Table 71.2: Adivasi household distance from forests and life improvement satisfaction, Odisha

Forest distance	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-1 km	58.5	53.1	80.7
1-2 km	65.2	64.2	86.8
2-5 km	46.7	52.3	88.8
More than 5 km	57.0	52.3	77.5

Table 72.1: Non-Adivasi household distance from forests and life improvement satisfaction, Jharkhand

Forest distance	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-1 km	60.0	59.5	80.5
1-2 km	63.0	64.1	75.0
2-5 km	57.1	54.1	85.7
More than 5 km	48.1	48.9	80.5

Table 72.2: Non-Adivasi household distance from forests and life improvement satisfaction, Odisha

Forest distance	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-1 km	42.5	40.3	78.4
1-2 km	71.9	66.7	91.2
2-5 km	61.1	53.7	74.1
More than 5 km	69.1	56.4	85.5

Table 73.1: Adivasi household income and life improvement satisfaction, Jharkhand

Income percentile	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-20	42.9	45.2	70.8
20-40	53.3	53.3	78.9
40-60	57.9	60.9	81.4
60-80	58.5	61.8	80.7
80-100	53.5	53.9	81.4

Table 73.2: Adivasi household income and life improvement satisfaction, Odisha

Income percentile	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-20	57.4	51.7	80.1
20-40	58.6	57.3	81.7
40-60	60.7	55.9	83.4
60-80	59.3	55.3	80.7
80-100	56.1	53.0	82.1

Table 74.1: Non-Adivasi household income and life improvement satisfaction, Jharkhand

Income percentile	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-20	53.7	47.2	70.4
20-40	58.9	66.1	80.4
40-60	56.0	54.1	85.3
60-80	55.5	56.4	82.7
80-100	58.2	54.5	81.8

Table 74.2: Non-Adivasi household income and life improvement satisfaction, Odisha

Income percentile	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-20	61.4	54.4	84.2
20-40	57.9	49.1	82.5
40-60	51.8	55.4	71.4
60-80	56.1	43.9	86.0
80-100	59.6	56.1	84.2

Table 75.1: Variation in the life improvement/development opinions of Adivasi household based on the income class, Jharkhand

Income percentile	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-20	44.6	47.0	71.8
20-40	54.1	54.9	79.1
40-60	57.7	60.9	83.6
60-80	59.6	60.9	80.7
80-100	50.1	51.3	77.9

Table 75.2: Variation in the life improvement/development opinions of Adivasi household based on the income class, Odisha

Income percentile	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-20	61.5	56.4	82.4
20-40	61.6	57.1	82.7
40-60	56.4	57.1	82.1
60-80	56.6	46.8	79.0
80-100	56.1	55.7	81.8

Table 76.1: Variation in the life improvement/development opinions of non-Adivasi household based on the income class, Jharkhand

Income percentile	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-20	53.6	50.0	70.0
20-40	58.2	59.1	82.7
40-60	58.7	58.7	84.4
60-80	56.4	58.2	83.6
80-100	55.5	52.7	80.0

Table 76.2: Variation in the life improvement/development opinions of non-Adivasi household based on the income class, Odisha

Income percentile	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
0-20	68.4	61.4	87.7
20-40	59.6	52.6	77.2
40-60	46.4	48.2	75.0
60-80	50.9	45.6	86.0
80-100	61.4	50.9	82.5

Table 77.1: Variation in the life improvement/development opinions of Adivasi household based on the size of landholding, Jharkhand

Land size class	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
Landless	38.9	40.6	62.8
Marginal	55.2	57.6	80.4
Small	58.1	54.5	84.8
Small-medium	43.1	48.3	84.5
Medium	33.3	33.3	93.3
Large	38.5	30.8	53.8

Table 77.2: Variation in the life improvement/development opinions of Adivasi household based on the size of landholding, Odisha

Land size class	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
Landless	53.5	44.7	72.4
Marginal	58.2	54.2	83.7
Small	61.0	62.8	80.8
Small-medium	68.5	70.4	75.9
Medium	62.5	62.5	100.0
Large	100.0	33.3	100.0



Table 78.1: Variation in the life improvement/development opinions of non-Adivasi household based on the size of landholding, Jharkhand

Land size class	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
Landless	53.6	50.0	70.0
Marginal	58.2	59.1	82.7
Small	58.7	58.7	84.4
Small-medium	56.4	58.2	83.6
Medium	55.5	52.7	80.0
Large			

Table 78.2: Variation in the life improvement/development opinions of non-Adivasi household based on the size of landholding, Odisha

Land Size class	Satisfied with the government effort	Satisfied with non-governmental agencies efforts	Life has improved in last year
Landless	68.4	61.4	87.7
Marginal	59.6	52.6	77.2
Small	46.4	48.2	75.0
Small-medium	50.9	45.6	86.0
Medium	61.4	50.9	82.5
Large			

Annexure

I. Important Government schemes and programmes for Adivasis in Jharkhand and Odisha

Jharkhand:

Pre- Matric Scholarship to ST and SC students
Merit cum Means Scholarship for Professional & Technical Courses:
Residential schools for SC, ST, OBC students
Cycle distribution to SC, ST, OBC students
Scheme of Coaching & Allied for Scheduled Tribes/Caste
Medical Aid schemes for SC, ST, OBC
PAHARIYA HEALTH SCHEME
Safe and Adequate Drinking Water Facility
Kalyan Hospitals especially for the STs
Birsa Awas Yojana for PVTG
Shaheed Gram Vikas Yojana in the villages of tribal martyrs who had fought in the Indian War of Independence against the Britishers
Kalyan Gurukul skill development programme
Kaushal Colleges for skill development
Jharkhand Tribal Empowerment and Livelihoods Project (JTELP)
Initiatives Under the Vandhan Yojana of TRIFED :
Targeting the Hardcore Poor Project

Odisha:

State programmes and schemes

Scholarship and Stipend for ST
Pre-matric Scholarship and Stipend for ST students
Scheme for providing quality education for ST/SC students in partnership with Urban Educational Institution (ANWESHA)
Financial Assistance to ST Students for pursuing studies in National Institutes
Payment of Ex-gratia to the Next of kins of SC & ST students
Exemption of Tuition Fees in Sainik School for SC ST students

Multilingual Education for Tribal Language
Odisha Girl Incentive Programme (OGIP) for Pre-Matric Scholarship to ST Day-Scholars.
Extra-Curricular Activities in ST & SC Dev. Deptt. Schools
Operationalization of Urban Hostel Complex (AKANKSHYA) for SC/ST students
Construction, Completion and Repair of Educational Institutions under SC ST department
Construction of ST girls Hostels
Preservation and Promotion of Tribal Culture & Craft
Information, Education & Communication
Odisha Particularly Vulnerable Tribal Group Empowerment and Livelihood Improvement Programme (OPELIP)
Orissa Tribal Empowerment and Livelihoods Programme (OTELP PLUS)

Central programmes and schemes

Post Matric Scholarship for ST students
Pre-Matric Scholarship for ST students
Up-gradation of merit of ST students through extra coaching
National Fellowship for Higher Education of ST Students
National Overseas Scholarship for ST-
Development of Particularly Vulnerable Tribal Groups in the State
Grants under Article 275(I) of the Constitution of India for construction of infrastructure and model schools in TSP area
Tribal Development Projects implemented with Special Central Assistance
Scheme for Development of De-notified Nomadic Tribes
Institutional Support for Development and Marketing of Tribal Products / Produce (TRIFED etc.)
Minimum Support price for Minor Forest Produce (MSP for MFP)
Protection / Enforcement of PCR Act, 1989
Support to Tribal Research Institute



Annexure

J. FCS to measure Dietary Diversity



(United Nations World Food Programme, Food (United Nations World Food Programme, *Food Consumption Score Nutritional Quality Assessment Guideline (FCS-N)*. VAM assessment team, WFP HQ, July 2015)

Food Consumption Score (FCS) is a composite score based on dietary diversity, food frequency, and relative nutritional importance of different food groups. It has been developed by United Nations World Food Programme and published in 2015.

According to the FCS construction guideline, we have collected information on the list of food items and food groups that are generally consumed in the Adivasi regions of Jharkhand and Odisha. The interviewees were asked about the frequency of consumption (in days) of those food items over a recall period of the past 7 days.

Food items were grouped into 8 standard food groups. Each food group was assigned a weight based on its nutrient content. We followed the justification provided by the WFP.

Table 79: Nutrition weightage of food items

Food group	Weight	Justification
Cereals and tubers	2	Energy dense, protein content lower and poorer quality (PER less) than legumes, micro-nutrients (bound by phytates).
Pulses	3	Energy dense, high amounts of protein but of lower quality (PER less) than meats, micronutrients (inhibited by phytates), low fat.
Vegetables	1	Low energy, low protein, no fat, micro-nutrients
Fruits	1	Low energy, low protein, no fat, micro-nutrients
Meat and Fish	4	Highest quality protein, easily absorbable micronutrients (no phytates), energy dense, fat. Even when consumed in small quantities, improvements to the quality of diet are large.
Milk	4	Highest quality protein, micro-nutrients, vitamin A, energy. However, milk could be consumed only in very small amounts and should then be treated as condiment and therefore reclassification in such cases is needed.
Sugar	0.5	Empty calories. Usually consumed in small quantities.
Oil	0.5	Energy dense but usually no other micronutrients. Usually consumed in small quantities
Condiment	0	

The consumption frequency of each food group is multiplied by the assigned weight and then summed up to get the Food Consumption Score (FCS).

Based on the scores, food consumption profiles of each of the households are drawn as below:

Table 80: Food consumption profile

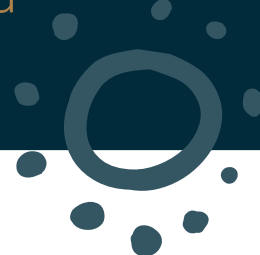
FCS	Profiles
0 – 21 (0 – 28)	Poor food consumption
21.5 – 35 (28.5 – 42)	Borderline food consumption
>35 (>42)	Acceptable food consumption

FCS figures within the bracket are for households that consume sugar and oil on a daily basis.



Annexure

K. HFIAS to measure household level Food security



(Coates, Jennifer, Anne Swindale and Paula Bilinsky. *Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access: Indicator Guide* (v. 2). Washington, D.C.: Food and Nutrition Technical Assistance Project, Academy for Educational Development, July 2006.)

In this tool food security has been defined as a state in which “all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life”.

Each of the questions in this tool is asked with a recall period of 30 days. The respondent is first asked an occurrence question – that is, whether the condition in the question happened at all in the past 30 days (yes or no).

There are nine Occurrence Questions in the tool which are as follows:

1. Did you worry that your household would not have enough food?
2. Were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?
3. Did you or any household member eat a limited variety of foods due to a lack of resources?
4. Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?
5. Did you or any household member eat a smaller meal than you felt you needed because there was not enough food?
6. Did you or any other household member eat fewer meals in a day because there was not enough food?
7. Was there ever no food at all in your household because there were no resources to get more?
8. Did you or any household member go to sleep at night hungry because there was not enough food?

9. Did you or any household member go a whole day without eating anything because there was not enough food?

If the respondent answers “yes” to an occurrence question, a frequency-of-occurrence question is asked to determine whether the condition happened rarely (once or twice), sometimes (three to ten times) or often (more than ten times) in the past 30 days. For ‘rarely’ occurrence the corresponding score is 1, for ‘sometimes’ occurrence the score is 2 and for ‘often’ it is 3. If the respondent answers “no” to an occurrence question, the corresponding score is 0.

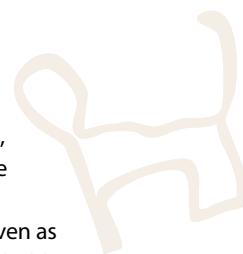
Like the other tools, we piloted this tool too after translating the questions into local language to make sure that the respondents understand the questions properly.

To get the total HFIAS score for each household the score for each frequency-of-occurrence question is summed. The maximum score for a household can be 27 if the household’s response to all nine frequency-of-occurrence questions is “often”. The minimum score is 0 when the household responds “no” to all occurrence questions. The higher the score, the more food insecurity (access) the household experienced. The lower the score, the less food insecurity (access) a household experienced.

Households are categorized into four levels of food insecurity (access): food secure, mildly insecure, moderately insecure and severely food insecure. A food-secure household experiences none of the food insecurity (access) conditions, or just experiences worry, but rarely. A mildly food-insecure (access) household worries about not having enough food sometimes or often, and/or is unable to eat preferred foods, and/or eats a monotonous diet or less-preferred foods, but only rarely. But it does not cut back on quantity nor experience any of the three most severe conditions (going a whole day without

eating, going to bed hungry, or running out of food). A moderately food insecure household sacrifices quality more frequently, by eating a monotonous diet or less-preferred foods sometimes or often, and/or has started to cut back on quantity by reducing the size of meals or the number of meals, rarely or sometimes. But it does not experience any of the three most severe conditions. A severely food insecure household has graduated to cutting

back on meal size or the number of meals often, and/or experiences any of the three most severe conditions (going a whole day without eating, going to bed hungry, or running out of food), even as infrequently as rarely. In other words, any household that experiences one of these three conditions even once in the last 30 days is considered severely food insecure.





Annexure

L. Instruments used during the study



Four instruments were used during the study. The first was a detailed Schedule used for the survey of households. The second was the Schedule to serve as the guide for conducting Focus Group Discussions with respondents from villages in which household surveys were done. The

third is the sheet that gathered village level information. The final one was the sheet that served to navigate the interview with chosen leaders and workers in the Adivasi communities in the two states. All these instruments are given in this Appendix.

Development Status of Adivasis of Central Indian Plateau

Schedule for Household Survey

Informing the person/household interviewed for the objective of the survey and consent

Table 81: Consent and date and location of the survey

Date:			
State:	District:	Block:	Village:
Household number			
Name of surveyor:			
Consent Read Out:	Signature:	Thumb impression:	

Basic information

Table 82: Household information roster

Srl/ HH ID	Name	Relation to household head	Gender	Age	Marital status	Highest formal Education till date of survey	Primary activity engaged in last 365 days (code)	Do they have a mobile phone? (1- Yes, 0- No)	If yes, is it a smartphone? (1- Yes, 0- No)	Is person a divyang? (1- Yes, 0- No)
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Codes for relationship with household head

1- self, 2 – husband, 3 – wife, 4 – mother, 5 – father, 6 – son, 7 – daughter, 8 – daughter in law, 9 – son in law, 10- grandfather, 11 – grandmother, 12- granddaughter, 13 – grandson, 14 – uncle, 15 – aunt, 99 – other

Gender code

1- Female, 2 – Male, 3 – Other

Codes for marital status

1- never married, 2- currently married, 3- divorced, 4 – separated, 5- widowed, 9- other

Code for formal Education

0 – No school education, 1- less than primary, 2 – primary (class 4), 3- less than matriculation but more than primary, 4 – class 10 or matriculation, 5 – more than matriculation but less than HSC, 6 – HSC, 7 – attended collage but did not finish, 8 – college graduate and above but not post-graduate, 9 – postgraduate, 10- more than post-graduation, 11- professional diploma after 10th or 12th

Codes for primary activity/occupation

1- Agricultural Labor, 2-Non-agricultural labor, 3-Retired, 4-Government Job, 5-Private Job (formal as well as informal), 6-not working, 7- Livestock, 8- Agricultural enterprise, 9 – Non-agricultural enterprise, 10- Cultivation, 11-house wife, 12 – Student, 13-Other specify



Food security (HFIAS questionnaire)² – to be answered by female member of the household

Table 83: Food security of the household

			Code (for household)
1	In the past four weeks, did you worry that your household would not have enough food?	0 = No (skip to Q2) 1=Yes	
1.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
2	In the past four weeks (one month), were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	0 = No (skip to Q3) 1=Yes	
2.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
3	In the past four weeks (one month), did you or any household member have to eat a limited variety of foods due to a lack of resources?	0 = No (skip to Q4) 1=Yes	
3.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
4	In the past four weeks (one month), did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	0 = No (skip to Q5) 1=Yes	

² Questions in this section are adopted from Household Food Insecurity Access Scale (HFIAS) for Measurement of Food Access: Indicator Guide VERSION 3 (2007) by USAID

			Code (for household)
4.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
5	In the past four weeks (one month), did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?	0 = No (skip to Q6) 1=Yes	
5.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
6	In the past four weeks (one month), did you or any other household member have to eat fewer meals in a day because there was not enough food?	0 = No (skip to Q7) 1=Yes	
6.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
7	In the past four weeks (one month), was there ever no food to eat of any kind in your household because of lack of resources to get food?	0 = No (skip to Q8) 1=Yes	
7.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
8	In the past four weeks (one month), did you or any household member go to sleep at night hungry because there was not enough food?	0 = No (skip to Q9) 1=Yes	

			Code (for household)
8.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
9	In the past four weeks (one month), did you or any household member go a whole day and night without eating anything because there was not enough food?	0 = No (End of questionnaire) 1=Yes	
9.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	

Table 84: Food security of the female member of the household

			Code (for female member of the household)
1	In the past four weeks (one month), did you worry that your household would not have enough food?	0 = No (skip to Q2) 1=Yes	
1.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
2	In the past four weeks (one month), were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	0 = No (skip to Q3) 1=Yes	
2.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	

			Code (for female member of the household)
3	In the past four weeks (one month), did you or any household member have to eat a limited variety of foods due to a lack of resources?	0 = No (skip to Q4) 1=Yes	
3.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
4	In the past four weeks (one month), did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	0 = No (skip to Q5) 1=Yes	
4.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
5	In the past four weeks (one month), did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?	0 = No (skip to Q6) 1=Yes	
5.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
6	In the past four weeks (one month), did you or any other household member have to eat fewer meals in a day because there was not enough food?	0 = No (skip to Q7) 1=Yes	



			Code (for female member of the household)
6.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
7	In the past four weeks (one month), was there ever no food to eat of any kind in your household because of lack of resources to get food?	0 = No (skip to Q8) 1=Yes	
7.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
8	In the past four weeks (one month), did you or any household member go to sleep at night hungry because there was not enough food?	0 = No (skip to Q9) 1=Yes	
8.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	
9	In the past four weeks (one month), did you or any household member go a whole day and night without eating anything because there was not enough food?	0 = No (End of questionnaire) 1=Yes	
9.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks (one month)) 3 = Often (more than ten times in the past four weeks (one month))	

Dietary diversity³:- (to be answered by female member of the household)

3 Questions in this section are adopted from 'Guidelines for measuring household and individual dietary diversity' by Gina Kennedy, Terri Ballard and MarieClaude Dop, Nutrition and Consumer Protection Division, Food and Agriculture Organization of the United Nations (<http://www.fao.org/3/a-i1983e.pdf>)

Table 85: Diversity of Diet of the household

Srl.	Food Group	No. of days in last 7 days (week) when consumption took place	Source (for household) 1- own production, 2- purchased, 3- borrowed, 4-bartered, exchanged for labour, 5- gift from friends and relatives, 6- food aid from government, 7- other
1	Cereals and Tubers		
2	Pulses		
3	Vegetables		
4	Fruits		
5	Meat, egg and Fish		
6	Milk, curd		
7	Sugar		
8	Oil, butter		
9	Condiments		
10	Fortified foods		

Table 86: Dietary diversity of the female member of the household

Srl.	Food Group	No. of days in last 7 days (week) when consumption took place	Source (for household) 1- own production, 2- purchased, 3- borrowed, 4-bartered, exchanged for labour, 5- gift from friends and relatives, 6- food aid from government, 7- other
1	Cereals and Tubers		
2	Pulses		
3	Vegetables		
4	Fruits		
5	Meat, egg and Fish		
6	Milk, curd		
7	Sugar		
8	Oil, butter		
9	Condiments		
10	Fortified foods		

Health and Sickness

Table 87: Age and head circumference for children below 5 years

Srl (from household roster, for children below age 5)	Age (Year and month)	Head circumference (in cm)

Table 88: Details of sickness of household members

Srl. (same as from household Roster table 2)	Number of days in last four weeks (month) when person was sick	Reason for sickness (Code)	Type of treatment received (Codes)	Expenditure on treatment (₹)	Did you have to borrow money for the treatment? 1- Yes, 2- No	Use of any welfare scheme like Ayushman Bharat (Yes/No)

(When there are more than 10 household members, insert extra print of the pages of questionnaire containing Table 79)

Codes

1-Diarrhea/dysentery/other stomach related disease, 2—Malaria, 3- Other fever, 4- Measles5-TB, 6- Asthma, 7-Jaundice, 8- Diabetes, 9-Cancer, 10-Heart diseases 11- Covid-19, 12-Blood pressure 13 – Others specify.

Consultation codes

1-Governmenthospital, 2-Private hospital, 3- Ayurvedic doctor 4-ASHA, 5-ANM, 6-Use traditional herbs 7- Jholachhaap doctor(informal medical practitioner), 8- Buy medicine from chemist himself/herself, 9- Did not consult anyone and did not use any medicine, 10- Other specify

Was there any death in the household during last 12 months (year)? 0 – No, 1- Yes

Functional Literacy

Reading paragraph

लोहारदगा जिला का सितारामपूर गाँव में 20 दीदी लोगों ने एक महिला समिति बनाए। सभी दीदी ने प्रति सप्ताह 10 रुपये जमा कर के कुल 1 लाख रुपये के आस पास बचत कर लिए। करीब करीब सभी दीदी को बैंक से लोन (कर्ज) मिला। इस कर्ज से सभी दीदी ने आजीविका के लिए कुछ न कुछ काम चालू किया।

Table 89: Writing response

	Word (to be said aloud, slowly and clearly by interviewer)	Response
1	Market	
2	Prime Minister	
3	Mahua	
4	सरना	
5	Family	

Numeracy test

1. $10 + 15 =$
2. $45 - 23 =$
3. $85 - 39 =$
4. $13 \times 26 =$
5. $98 \div 7 =$

Table 90: Details of literacy of an adult male and adult female member of the household

Srl.(from Household Roster)	Correctly read words (only from underlined in the paragraph for reading)	Correctly written words	Correctly solved sums

Access to land, water, and forest

Table 91: Land holding and irrigation

	Own Land Decimal (100 decimal= 1 acre)	Leased/ rented/ mortgage Land in Decimal	Leased/ rented/ mortgage Land out Decimal	Share Cropping in Decimal	Share Cropping out Decimal
Total Land					
Cultivable area as on kharif season in last 365 days					

	Own Land Decimal (100 decimal= 1 acre)	Leased/ rented/ mortgage Land in Decimal	Leased/ rented/ mortgage Land out Decimal	Share Cropping in Decimal	Share Cropping out Decimal
Cultivable area as on Rabi season in last 365 days					
Cultivable area as on Summer season in last 365 days					
Is irrigation facility available all three seasons? 1-Yes, 2-No					
If no, in which season irrigation not available? 1. Kharif 2. Rabi 3. Summer					
If yes, For How much land is irrigation available in Kharif 1. All the land 2. Most of the land 3. Half of the land 4. Less than half 5. None					
Source of Irrigation in kharif (mark all that applies) 1. Well 2. Pond 3. River or Stream 4. Canal 5. Tube-well / Bore-well 6. Other specify					
If yes, For How much land is irrigation available in Summer 1. All the land 2. Most of the land 3. Half of the land 4. Less than half 5. None					
Source of Irrigation in Summer (mark all that applies) 1. Well 2. Pond 3. River or Stream 4. Canal 5. Tube-well / Bore-well 6. Other specify...					

	Own Land Decimal (100 decimal= 1 acre)	Leased/ rented/ mortgage Land in Decimal	Leased/ rented/ mortgage Land out Decimal	Share Cropping in Decimal	Share Cropping out Decimal
If yes, For How much land is irrigation available in Rabi 1. All the land 2. Most of the land 3. Half of the land 4. Less than half 5. None					
Source of Irrigation in Rabi (mark all that applies) 1. Well 2. Pond 3. River or Stream 4. Canal 5. Tube-well / Bore-well 6. Other specify...					

Crop codes (for Table 83, Table 84, and Table 85)

Cereals

1. Maize
2. Wheat
3. paddy
4. barley
5. siur/marsha/chalai
6. phoolan
7. ogla
8. phapra
9. kodra/madua
10. Gangdi
11. Sugar cane
12. Other, specify _____

Pulses

13. Rajma
14. Mash
15. Kulth
16. Soyabean
17. Masoor
18. Arhar
19. Urad
20. Other, specify _____

Vegetables

21. Potatoes
22. Peas

23. Beans
24. Cabbage
25. Tomatoes
26. Garlic
27. Katcha aloo
28. Chillies
29. Onion
30. Cow pea
31. Bengal gram
32. Green gram
33. Katchoo
34. Kanda
35. Cauliflowers
36. Lady fingers
37. Cucumber
38. Garlic, coriander, ginger.
39. Bitter gourd
40. Other gourd
41. Brinjal
42. Other, specify _____

Oil seed

43. Oil seeds
44. Mustard
45. Linseeds
46. Other seeds, specify _____

Table 92: Kharif farming details

		Cereals/Pulses/Oil seed				Vegetable			
		Crop 1	Crop 2	Crop 3	Crop 4	Veg 1	Veg 2	Veg 3	Veg 4
1	Name of Crop								
2	Crop Code								
3	Area cultivated under this crop (Bigha)								
4	Total Production quintal								
5	What did you do to the crop? 1-Only consume 2-Only sell 3-Both								
6	If code 2&3, What quantity did your HH sell? (in quintal)								
7	Total (Gross) income from sell (in ₹)								
8	Cost of cultivation (in ₹)								
9	Net income (Total income from sell – cost of cultivation) in ₹								
10	Kharif net income (in ₹)								

Table 93: Rabi farming details

		Cereals/Pulses/Oil seed				Vegetable			
		Crop 1	Crop 2	Crop 3	Crop 4	Veg 1	Veg 2	Veg 3	Veg 4
11	Name of Crop								
12	Crop Code								
13	Area cultivated under this crop (Bigha)								
14	Total Production quintal								
15	What did you do to the crop? 1-Only consume 2-Only sell 3-Both								
16	If code 2&3, What quantity did your HH sell? (in quintal)								
17	Total (Gross) income from sell (in ₹)								
18	Cost of cultivation (in ₹)								
19	Net income (Total income from sell – cost of cultivation) in ₹								
20	Rabi Net income (in ₹)								

Table 94: Summer farming details

		Cereals/Pulses/Oil seed				Vegetable			
		Crop 1	Crop 2	Crop 3	Crop 4	Veg 1	Veg 2	Veg 3	Veg 4
21	Name of Crop								
22	Crop Code								
23	Area cultivated under this crop (Bigha)								
24	Total Production quintal								
25	What did you do to the crop? 1-Only consume 2-Only sell 3-Both								
26	If code 2&3, What quantity did your HH sell? (in quintal)								
27	Total (Gross) income from sell (in ₹)								
28	Cost of cultivation (in ₹)								
29	Net income (Total income from sell – cost of cultivation) in ₹								
30	Summer net income (in ₹)								

Table 95: Crops outside Kharif, Rabi and Summer seasons

	Crop Name	Code	Do you use it only for self-consumption?	Number of times sold produce in the market in last 12 months	Amount from last sell (₹)	Cost for last cycle (₹)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Code

1- Mango, 2 – Lemon, 3 – Papaya, 4 – Litchi, 5 – Guava, 6 – Jackfruit, 7 – Pomegranate, 8 – Sugarcane, 9 – Flowers, 10 – Others

1. Net income from farming (Kharif net income + Rabi net income + Summer net income + other crop net income) in ₹ - _____

Table 96: Livestock/Animal husbandry details

	Buffaloes	Cows	Goats	Poultry birds	Pigs	Fish	Other2
No. of Adult Female							
No. of Adult Male							
No. of Kids/Young							
Did you sell animals/animal produce? (1 -Yes, 0 – No_							
Total income from sell (in ₹)							
Cost of rearing (in ₹)							
Net income from animal husbandry (in ₹)							

- How far is the forest from the village? _____ km
- Do you depend on the forest to eke your livelihoods? Yes/No
- If yes, please provide the details in Table 88.

Table 97: Forest produce details

Forest Produce	For Sale/ household consumption/ Both	If sold, sale amount in Rs. (last year)	How satisfied are you with the sale price (1= Pleased 2=Mostly Satisfied 3=Mostly dissatisfied 4= Unhappy)	If for sale, whom do you sell? Local market/Forest Department/ Private contractor/Local Moneylender/ Some community organization/ Private Company/Others (Specify)	If sale, do you produce any value- added product or sell it as it is? Value addition takes place/ Sell as it is	Has there been any change in the collection over last five years? Increased/ Decreased/ No change
Fuelwood						
Fodder						
Saal / siali leaves / seeds						
Mahua flower/seeds						
Kendu leaves						
Seasonal fruits						
Honey						
Bamboo						
Tadi						
Mushrooms						
Chironji						
Surteli						
Timber						
Food (except seasonal fruits)						
Total income (in ₹)						

5. Have you heard about Forest Rights Act? Yes/No
6. Do you have any land for which you have applied for IFR? Yes/No
7. If Yes, have you received a IFR for that land? Yes/No
8. How many gram sabha took place in the last year?
9. If any, did you attend?
10. If attended, did you raise any issue/demand/claim?
11. What is the source of drinking water for your household?

Table 98: Drinking water source details

Source of drinking water	Yes/No	Do you get sufficient water from this source in summer? (1 -Yes, 0 – No)	Do you get sufficient water from this source in monsoon? (1 -Yes, 0 – No)	Do you get sufficient water from this source in winter? (1 -Yes, 0 – No)	According to you, is this a clean and safe source of drinking water? (Yes/ No)	Time to fetch water (in minutes and when source of drinking water is outside the premise)
Tap (inside premise)						
Handpump (inside premise)						
Dug well (inside premise)						
Public Stand-post						
Public Handpump						
Public Dug well						
Pond						
River						
Spring						
Tanker						

12. What sanitation facility do you have in your household? toilet/ under construction / No facility

Access to right and entitlements

Table 99: Details of awareness and access to rights and entitlements

Srl.	Scheme name	Do you know about the scheme? 0- No, 1- Yes	If yes, anyone from the household is eligible for the scheme? 0 – No, 1- Yes	If yes, have you applied for the scheme?	If yes, have you received the benefit? 0- No, 1- Yes	In case the benefit is monetary, what is the amount received?	In case the benefit was in kind, what was the received benefit?	Are you satisfied with this scheme? (only if household is eligible for the scheme) Yes -1, No – 0
1	RTE							
2	Ujjwala							
3	Swach Bharat							
4	Ayushman Bharat							
5	PM Awas xYojana							
6	PM Kisan							
7	Janani Suraksha Yojana							

What is PDS card type of the household?

1- White, 2- Orange, 3- Antyoday, 4- No PDS card

Table 100: Information about PDS use

Srl.	Item name	Quantity obtained in last 30 days (month)	Expenditure
1	Rice		
2	Wheat		
3	Pulses		
4	Sugar		
5	Oil		
6	Kerosene		
7			

Migration

- Has this member left the village for work even for a day during last one year?_____,
1-Yes, 2-No,
- if No then go to Next Section

Table 101: Migration details

ID from HH roster	Month(s) in which migrated (it can be more than one) Months	How many days he / she spend out of village # Days	What is his/her main occupation as a migrant? Occupation Code	Total earning amount in this migration instance Rs	How much money did he/she send to the household? Rs	Name of the state/ location where migrated Drop down State

Occupation code for migration

1. daily wage laborer
2. labor intensive work with monthly wages (factory, cottage industry)
3. small trader (e.g. fruit or vegetable cart, eatables)
4. employed as service providers (excluding maid servants – e.g. barber, laundry, beauty parlor, waiter)
5. entrepreneur in service provision ((excluding maid servants – e.g. barber, laundry)
6. maid servants or household servant
7. salaried employee with outdoor work (sales executives, commission agents, CSO, security)
8. salaried employee with desk-based job in government owned establishment
9. salaried employee with desk-based job in private sector establishment

Non-farm activities

Table 102: Non-farm activities details

	Non-farm activity 1	Non-farm activity 2	Non-farm activity 3
Nature of activity			
For how long one or more members of the household were involved in the activity in last 365 days?			
Total receipts (in ₹)			
Cost of operation (in ₹)			

Wage, salary, and pension earnings**Table 103: Wage earning**

HH roster ID	Number of days in last 365 days when member was engaged in the wage-earning activity	Nature of activity	Total wage earnings in last 365 days (in ₹)

Table 104: Earning from salary and pension

HH roster ID	Salary or pension received in last month (in ₹)

Income sources details**Table 105: Income source details**

		Last 365 days (in ₹)
1	Farming (from section VII – 1)	
2	Animal husbandry (from Table 87)	
3	Collections (NFTP sales +capture fishery) (from Table 88)	
4	Non-farm activities (from Table 93)	
5	Wages (from Table 94)	
6	Remittances (from Table 92)	
7	Transfer payments from government welfare schemes (from Table 90)	
8	Total income (adding 1 to 7)	

Credit**Table 106: Credit details**

SN	Source of credit	Credit taken in last one year (Yes/No)	Number of times loan taken in last one year	Highest amount in the last year (Rs)	Annual Rate of Interest (%)	Reason for credit (Health/ Business/ Education/House Repair/Others (Specify))	Any outstanding loans (Yes/ No)	Amount outstanding (in ₹)
1	Bank (Private Commercial)							
2	Bank (Public Commercial)							
3	Bank (Regional Rural)							
4	Bank (Cooperative)							
5	MFI							
6	SHG							
7	Friends and Relatives							
8	Moneylender							

Table 107: Decision making within household (to be answered by female member of the household)

	Decision	Codes:- Who makes the final decision? 1= Didi 2- Dada 3=Joint 4=Adult son 5=Adult daughter 6=Daughter-in-law 7=Young daughter 8=Young son 9=Mother/Mother in law 10= Father/Father in law 11=Brother/ Brother in law 12=Other specify 99=not applicable
1	Children's education	
2	Livelihood investments (crop choices, etc)	
3	Daily household purchases	
4	Asset purchase or sale	
5	Taking loans	
6	Use of SHG loans	
7	(asked only if married) respondent visiting natal family	
8	(asked only if married) family size	

Report card or perception ratings

1. Are you satisfied with the efforts of Government to develop life and livelihoods of Adivasi (Adivasi) communities? 1- Yes, 0- No
2. Are you satisfied with the efforts of non-governmental agencies in developing life and livelihoods of Adivasi (Adivasi) communities? 1- Yes, 0- No
3. On the following scale, how much do you think your life has improved during the last year?

1- great improvement, 2- somewhat improved, 3- no improvement, 4- somewhat worsened, 5 – greatly worsened

Schedule for Focussed Group Discussion at the village/ Adivasi hamlet level

Sampling Strategy: In each sample block one village is to be randomly chosen and a Focus Group Discussion will take place in that village. Altogether if there are 54 blocks to be sampled in the study, 54 FGDs will take place. Of these in 27 villages (i.e. 27 FGDs) the focus group will be a group of (a total of eight to ten) women residents of the village and in 27 villages (i.e. 27 FGDs) the focus group will be a group of (eight to ten) young men and women (age group between 18-40 years) from the village.

Method: A semi-structured schedule is to be administered as part of the FGD conducted with women in the chosen village. A similar semi-structured schedule is to be administered to a group of young people in the chosen village.

Common Set of Questions:

1. Village:
2. Block:
3. District:
4. State:
5. Number of hamlets in the village:
6. Number of Adivasi hamlets:
7. Number of households in the Adivasi hamlet/village:

Set of Questions to be administered during FGD with women residents in the village

1. a. How have the sanitation situation changed over time in the village (Prompts: are there more sanitary facility now? Do people use them? Do women in the FGD use them? If yes, When? Is there still a prevalence of open defecation?

- b. In case sanitation facility has changed, how has that affected the life of the people in general and women in particular in the village?
2. a. How have the drinking water situation changed over time in the village? (Prompts: How has the nature of source [well/springs/tap/handpump etc.] changed over time? Is the dependence seasonal? Are there household level tap connections? Have water resources become more scarce/abundant? Why?)
b. How have the change in the drinking water situation affected the life of the people in general and women in particular in the village? [Prompts: Are women primarily responsible in collecting water? With depletion/abundance in water resources what kind of challenges/ benefits do women face? Similarly, with changes in the extraction mechanisms/some specific sources, how and why have life of women got affected?]
3. a. How are government programs like ICDS, Anganwadi, MDM and THR working in the village?
b. How have they affected the life of the people in general and women in particular in the village?
4. a. How has the dependence on the forest for timber/NTFP/food items/fuelwood changed over the years? [Prompts: People depend on forest for what items? Has availability of such items increased/decreased in recent times? Why? Do women go into the forest for the collection? How has their relationship with the Forest Department changed?]
5. How has involvement of women in the agriculture changed over the years? (Prompts: Women's involvement in various agriculture activities? Women's involvement in marketing activities? Women's involvement in post-harvest activities?)
6. Perception of the participants about the functioning of the Gram Sabha and Gram Panchayat? (Prompts: Do you meet in Gram Sabha in your village? How frequently? What is the level of participation? How things are decided? Which agenda are discussed? Do women participate?)

Set of Questions to be administered during FGD in mixed group with residents in the village

1. In case you sell forest produce in the market, where do you sell it? Do you receive satisfactory price? Has price realisation changed in recent years?
2. What is the state of Forest Rights Act in terms of receipt of CFR and IFR? (Prompts: Do people know about FRA? Do they know about CFR? Have they received CFR? If they have received CFR, does that

have resulted in the village taking up any value-addition or processing of forest produce or getting better price on the forest produce?]

3. How have the human-animal conflict evolved over the years? [Prompts: Have they increased/decreased? How have they affected the agriculture practice in the village? How do the villagers cope with the situation?]
4. How has agriculture practice evolved? (Prompts: Are there crop changes? Use of traditional versus hybrid or High yielding seeds? Use of pesticide and fertilizers in agriculture have increased? Irrigation coverage – what is the status? Has it improved over years? Single season agriculture or multi-season agriculture? Are there any constraints for practicing multi-season agriculture? Any instances of contract farming?)
5. Perception of the participants about the recent farm bills? (Prompts: Do they know about the farm bills? What do they think about those bills – do they see that they will benefit/harmed from them? Why?)
6. Perception of the participants about the PESA? (Prompts: Do they know about the PESA? Do they think that PESA is implemented with letter and spirit?)
7. Presence of industry/mine in the nearby areas and its effect on life and livelihoods in the village? (Do people from the village work in those sites? Who – male/female? What kind of work? How important in terms of money inflow in the village? Does such industry/mine pollute or deplete the water/forest

resources in and around the village? Do they know about District Mineral Fund and how it is used?]

Set of Questions to be administered during FGD with youth in the village

1. What are youths from this village doing, by and large (e.g. Study, working in village, working outside, etc.)? What issues are they facing in whatever they are doing?
2. Perception of the group about engagement in livelihoods activities like agriculture/animal husbandry versus migrating to urban areas? Do they see themselves having skills to work in urban areas? What kind of skill building/education opportunity/training do they feel is currently lacking and that they would need in future?
3. Do you think Adivasi society and culture are different from the rest? What are the Adivasi cultural and social practices that you cherish? Are there any non-advansi practices that you feel are worth absorbing in Adivasi culture?

Village Information Sheet

Sampling Strategy: In each sampled village/hamlet the field investigator has to sit with five or six key informants/ residents of the village and fill up the Village Information Sheet. This has to be done in parallel with the household survey.

Method: A close-ended village level questionnaire to be filled up through a joint discussion with five or six residents in the village.

Table 108: Village/Adivasi Hamlet Demographics

Village:	Block:	District:	State:
Number of hamlets in the village:		Number of Adivasi hamlets:	
Number of households in the Adivasi hamlet/village:			

Table 109: Access to natural resources

Are there any common/ public waterbodies (River, tank, Pond, reservoir, etc.) in and around the village? Yes/No	If yes, Distance from the nearest water body: _____kms/Inside village boundary
Who is the owner of the waterbody? Panchayat/Irrigation/Forest/Others (Specify)	Do villagers/people in the hamlet use the waterbody? Yes/No
If Yes, what purpose?	How old is the waterbody?
Has there been any changes in the size/ depth of the waterbody recent times? Yes/No	If Yes, What?
No. of waterbodies	Has there been any changes in the use that the villagers drew from the waterbody? Yes/No
If yes, What?	Currently who manages the waterbody?

Drinking water source in the village/hamlet:	Source	Individual Tap connection	Public Handpump	Public Standpost	Public Dug well	Public sanitary well	Private Handpump
	Nos						
Change in the dependence on different drinking water sources in last 5 years:	Source	Individual Tap connection	Public Handpump	Public Standpost	Public Dug well	Public sanitary well	Private Handpump
	Increased/ Decreased/ Constant						
Are there mines nearby? (Yes/No)			Are waterbodies being contaminated due to presence of mines? (Yes/No)				
What proportion of households have toilets? _____					Has there been any change in the trend of having toilets in the village in recent years? Increased/ Decreased/ No change		
Is there any drainage system in the village? Yes/No				If Yes, what is the system like? Open/ Closed/ Not applicable.			
Is there any forest nearby? Yes/No				If yes, how far? _____kms			
Do people from the village/hamlet depend on the forest for the following? Yes/No				Has there been any change in availability in last one decade? Availability has increased/Decreased/Remain same			
Fuelwood				Fuelwood			
Fodder				Fodder			
Timber				Timber			
Food items				Food items			
Medicine				Medicine			
Number of households in the village have applied for IFR? ____/N.A.				Number of households have received IFR? ____/N.A.			
Has the village applied for any CFR? Yes/No/N.A.				Has the village received any CFR? Yes/ No/N.A.			
What proportion of/how many households are landless?							
Approximately number of households in the village/hamlet having irrigation pump sets?							
Approximately, how many households in the village/hamlet engage in summer and rabi agriculture?		Season Number	Winter (Rabi)	Summer	Both		
Approximately, how many households in the village/hamlet engage in animal husbandry		Dairy	Poultry	Goatery	Sheep	Fishery	Piggery
In the last 12 months, were there any incidences of crop-damage due to animal attack (like Elephant / Monkey/Wild boar)? Yes/No				If yes, has there been an increase of such incidents? Yes/No			
Has contract farming started in your village?							
Do people in the village leave their cattle for free grazing post Kharif cultivation? Yes/ No		If yes, does such practice constraint rabi/summer cultivation? Yes/No		If yes, has the village/ hamlet collectively taken any action to stop free grazing (paashubaandi)? Yes/No			

Table 110: Access to state's development services/agencies

Do you have primary school in the hamlet/village? Yes/No	If No, what is the distance of nearest primary school? ____ kms	Do you have secondary school in the village? Yes/No	If No, what is the distance of nearest secondary school? ____ kms
Do you have a higher secondary school in the village? Yes/no	If No, what is the distance of nearest higher secondary school? ____ kms	Do you have a college in the village? Yes/No	If No, what is the distance of nearest college? ____ kms
% of households having a member who has passed class X:	% of households having a member who has passed class XII:	% of households having a college drop-out member:	% of households having a graduate member:
ICDS/Anganwadi Centre in the hamlet/village: Yes/No			
Does monthly vaccination programme take place at the ICDS/Anganwadi centre? (Yes/No)			
Is there any ASHA didi in the hamlet/Village? Yes/No	Does ASHA didi have essential medicine kit with her? Yes/No	If yes, has anyone from hamlet received medicine from this kit? Yes/No	
Distance from PHC? ____ kms	Distance from CHC? ____ kms	Nearest pharmacy shop from the village: ____ kms/ Inside village	Are households from the hamlet/village associated with any NGO (Sanstha)? Yes/No
PDS shop inside village/hamlet premises: Yes/No			
THR program functional in village: Yes/No			
Mid-day Meal program functional in the village? Yes/No			

Table 111: Access to communication

Distance of the village from the block HQ? ____ kms	Does the village have a all-weather road that connect it with block HQ? Yes/No	How do you rate the condition of the road? Very Good/Good/Satisfactory/Bad/Very Bad (To be filled by interviewer)	Is there a public transport connecting village to block HQ?
Is there a all-weather road connecting various parts of the village? Yes/No	How do you rate the condition of the intra-village road? Very Good/Good/Satisfactory/Bad/Very Bad (to be filled by interviewer)		
Do all Adivasi helmets have the electricity connection? (Yes/No)	By and large, is there a mobile network connectivity in the village? (Yes/No)		



Perceptions and Perspective of Adivasi Leaders

Semi-structured Interview Schedule:

1. Do you think Adivasi society and culture are different from the rest?
2. If so, in what ways do you think these societies are different.
3. What are the Adivasi cultural and social practices that you cherish?
4. Are there any non-Adivasi practices that you feel are worth absorbing in Adivasi culture?
5. How have the inter-Adivasi relationships (how one tribe looks at another tribe) evolved?
6. Is there a larger “shared Adivasi identity”?
7. Are traditionally held values prevalent in the Adivasi society are changing now a days? If yes, how?
8. What are the factors that are resulting in such a change?
9. Do you see any change in the gender relationships in Adivasi society? If yes, why and how?
10. How is this change affecting the relationship with household (men and women, young members and old members)?
11. How is this change affecting the relationship between households (in terms of a shared collective identity to more individualistic)?
12. The traditional symbiotic relationship with nature (say forest) – has that undergone any changes?
13. Do you see a change in the way that the Adivasi people associate with forest – from seeing forest as site for conservation, protection (sacred grooves) and subsistence to seeing forest as an avenue for revenue generation?
14. Have you observed any differences in the way agriculture is practiced in Adivasi villages with those practiced by Non-Adivasi communities?
15. How have those traditional agriculture practices changed/evolved over (recent) times?
16. Did traditional agricultural practices provide any kind of safety nets for the Adivasi people to live through the tough times?
17. What has been your general experience on how the Adivasi society coped with recent challenges of lockdown and unlock?
18. Could the experience be different, let say, if such a challenging time came, say, three decades back?
19. To what extent the **traditional systems** in the Adivasi society had a built-in component to avoid extreme kind of deprivation resulting in starvation or death?
20. Can you give specific instances of such systems?
21. How have the relationship with the market (as an arena where monetary transaction takes place against sale of goods or service) evolved/changed within Adivasi society?
22. Do they face onslaught from the modern monetary-transactional system?

Annexure

M. Shrinking landholding among Adivasis



We have noted that wage work, non-farm activities, and remittances and pensions are major sources of incomes of Adivasi households. It is instructive to examine why the share of farm income in the income portfolio of the average Adivasi household is low. The Tables below shows how the average operational land holding for Adivasi homes is falling. The fall can be inferred from the combination of operated land area and a steadily

rising number of operational landholdings. Thus, the size of landholding is falling continuously. The number of landholdings of medium and large landholders has been falling continuously and the number of landholdings of small and marginal farmers has been rising continuously for Adivasi communities in both Jharkhand and Odisha. In this respect, the Adivasi follow the overall national pattern.

Table 112: Change in landholding and operated area across land classes among Adivasi farmers in Odisha and Jharkhand

Year	Number of Agricultural holdings (million)	Total Operated agricultural area (m.ha.)	Agriculture holdings operated by marginal and small farmers (in %)	Agriculture holdings operated by medium and large farmers (in %)	Total Agriculture area operated by small and marginal farmers (in %)	Total area operated by medium and large farmers (in %)
1995-96	1.2	1.6	79.9	4.7	48.9	21.3
2000-01	1.2	1.6	82.0	4.1	52.9	19.0
2005-06	1.4	1.7	84.4	3.2	58.0	15.2
2010-11	1.4	1.1	90.2	1.5	56.8	12.6
2015-16	1.5	1.5	91.0	1.3	72.9	7.0
CAGR 20 YEARS	1.1	-0.3	0.6	-6.3	2.0	-5.4
CAGR 1996-2006	1.8	0.7	0.5	-3.9	1.7	-3.3
CAGR 2006-2016	0.4	-1.3	0.8	-8.7	2.3	-7.4
CAGR 2010-11 TO 2015—16	0.5	6.4	0.2	-3.9	5.1	-11.0
2010-11	1.0	1.4	78.6	8.2	35.0	40.2
2015-16	1.0	1.4	79.3	7.9	34.7	40.3
CAGR 2010-11 TO 2015-16	0.2	-0.6	0.2	-0.7	-0.2	0.0



Table 113: Agriculture Intensification among Adivasi community

Cropping Pattern for ST community ('000 ha)	Irrigated Area 2010-11	Irrigated Area 2015-16	Unirrigated area 2010-11	Unirrigated area 2015-16	Total area 2010-11	Total area 2015-16
Gross cropped Area	3,960	4,906	14,195	13,198	18,154	18104
Net Area Sown	3,471	4,275	11,299	10,543	14,770	14818
Cropping Intensity (In %)	114	115	126	125	123	122
Cropping Pattern for ALL community ('000 ha)	Irrigated Area 2010-11	Irrigated Area 2015-16	Unirrigated area 2010-11	Unirrigated area 2015-16	Total area 2010-11	Total area 2015-16
Gross cropped Area	87,768	95,579	1,05,992	96,178	193759	191756
Net Area Sown	64,567	68,234	76,711	71,802	141279	140036
Cropping Intensity (In %)	136	140	138	134	137	137

Source: GoI 2020

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