

# Patterns of poverty in remote rural areas

## A case study of a forest-based region in Southern Orissa in India

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Amita Shah

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Results of ODI research presented  
in preliminary form for discussion  
and critical comment

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## Acronyms

BPL	Below Poverty Line
CPRC	Chronic Poverty Research Centre
CSO	Civil Society Organisation
FDA	Forest Development Agency
GDP	Gross Domestic Product
HCR	Headcount Ratio
HDI	Human Development Index
HDR	Human Development Report
HH	Household
ICDS	Integrated child development support
IMR	Infant Mortality Rate
JFM	Joint Forest Management
KBK	Kalahandi-Bolangir-Koraput
LTAP	Long-Term Action Plan
MPCE	Monthly Per Capita Expenditure
NGO	Non-governmental Organisation
NSS	National Sample Survey
NSSO	National Sample Survey Organisation
NTFP	Non-Timber Forest Produce
PDS	Public Distribution System
PRA	Participatory Rural Appraisal
RDI	Relative Development Index
SC	Scheduled Caste
ST	Scheduled Tribe
SDR	State Development Report
UN	United Nations
UN	UN Development Program

## Executive summary

Given the vast geographical area, ecological-cultural diversity, and deep-rooted social stratification, spatial inequality is one of the important features of poverty in India. Besides inter-regional variations, there also exist a large number of spatial poverty traps characterised by four major categories of regions, *viz.*, remote, low potential or marginal, less favoured, and weakly integrated. In fact, there is often a significant overlap among these categories of spatial poverty traps. The multiple and mutually reinforcing disadvantages or deprivation faced by most of the spatial poverty traps has led to reproduction of poverty as manifested by the fact that incidence of poverty in these regions continue to remain significantly high in terms of absolute levels as well as comparative ranking.

By and large, these areas, located mainly in central-eastern regions, are: a) forest based economies with limited entitlements to the relatively rich natural resources; b) belong to socially marginalized communities such as scheduled tribes and castes; c) low level of industrial growth and market development; d) lower health and educational status along with higher population growth; and above all, e) feudal characteristics of the state. This kind of spatial concentration of poverty is also found in other states, especially in Maharashtra and Gujarat, which are highly industrialized and economically developed.

The state policies in India have a long history of addressing the issue of developing 'backward areas', defined by using multiple categorizations. However, these policies, have achieved only limited success, as the central focus of the policies has been on 'mainstreaming' these areas into the larger processes of economic development instead of addressing the very root cause of poverty and reproduction thereof. The recent initiatives by the Planning Commission of India for giving special priorities to the most backward and also conflict afflicted districts in the country, though laudable, seems to be following the same pattern. The need therefore is to re-examine the policies of economic development both at macro as well as micro levels.

In this context, the paper examines the spatial pattern of poverty in India and tries to understand how multiple deprivation leads to reproduction of poverty especially in forest-based economies in the central-eastern parts of the country. This has been attempted in the light of a case study of four villages in Koraput district in Orissa, India.

The analysis indicated spatial concentration of poverty among seven out of the 17 major states, accounting for nearly 78-80 per cent of rural poor in India. It also indicated that 15 regions had remained in the list of the poorest regions over three points of time during 1983 to 1999-00.

The finding that the predominance of forest based areas with high concentration of poverty over a long period of time calls for detailed probing into the extent, pattern, and policy support for ameliorating poverty in these regions. The paper brings out some important policy implications for redressing the situation of chronic poverty in such regions.

The analysis of chronic poverty in a forest-based region in southern Orissa reinstates the fact that chronic poverty in terms of severity and long duration is an overarching reality for almost nine out of ten households in the region. Similarly, it highlights severe deprivation in terms of food consumption, with a significantly large proportion of households consuming about half of the prescribed norm of cereal intake. Finally, the paper brings out the need for generating a better understanding of the dynamics of forest and development, which would facilitate a shift in the policy perspective for poverty reduction in the state.

# 1. Introduction

Spatial inequality is a significant feature of the Indian poverty scenario, given the country's vast geographical area, its ecological and cultural diversity and its deep-rooted social stratification. There are significant interregional variations and a large number of spatial poverty traps. Regions fall into four categories of spatial poverty trap: remote, low potential or marginal, less favoured and weakly integrated (Scott, 2006), with significant overlap among the four.

The multiple and mutually reinforcing disadvantages that many people face within such regions have led to the reproduction of poverty, as manifested by the fact that poverty incidence continues to remain significantly high in terms of both absolute levels and comparative rankings. In particular, low natural resource endowment and/or entitlement continue to play a crucial role in influencing the conditions of chronic poverty in the Indian context, a feature that is observed at both macro and micro levels.

This paper examines patterns of spatial poverty in India over time and attempts to understand the processes of its reproduction in light of scenarios prevailing in Southern Orissa, one of the regions experiencing very high incidence of poverty over a sustained period. The analysis in the paper draws on various studies carried out under the aegis of the Chronic Poverty Research Centre (CPRC) in India,<sup>1</sup> and has the following three objectives:

1. To identify areas with high incidence of poverty over a long period of time and to examine the important features associated with the poverty scenario across states and regions in India.
2. To discuss how multiple disadvantages drive chronic poverty (severe, long duration and multidimensional), especially in forest-based economies, through a case study of a forest-based region in Orissa.
3. To reflect on various approaches and draw implications for a more effective policy framework to ameliorate chronic poverty located within spatial poverty traps in the country.

In rural areas, poor natural resource endowment and/or access are among the most important forces sustaining initial poverty and transforming it into long duration and multidimensional poverty. Despite marginal improvements over time, the poor in these regions find it more difficult to exit poverty owing to a combination of factors, including poor agronomic potential, limited scope for diversification, weak infrastructure, remoteness and social or political marginalisation.

Poverty is concentrated in five out of the 17 major undivided Indian states,<sup>2</sup> which account for nearly two-thirds of the poor people in the country. These states are: Bihar, Orissa, Uttar Pradesh, Madhya Pradesh and Maharashtra. The seven regions with a significantly high proportion of poor and very poor populations are within the same five states. At a more disaggregated level, 51 out of the 52 most deprived districts, based on the United Nations Development Program (UNDP) Human Development Index (HDI), are within four out the five states (Maharashtra is replaced by Rajasthan on this count).

To a large extent, these areas, located mainly in the central eastern region, are characterised by forest-dominated economies where populations have limited entitlement to the relatively rich natural resources. Communities are socially marginalised and include scheduled tribes and castes (STs and SCs). Regions and areas display feudal characteristics. There are low levels of industrial growth and market development and low attainments in terms of health and education versus high population growth. This kind of spatial concentration of poverty is found even within highly industrialised and economically developed states like Maharashtra and Gujarat.<sup>3</sup>

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<sup>1</sup> For details, see Shah and Guru (2004) and Shah et al. (2006).

<sup>2</sup> Certain states, such as Bihar, Madhya Pradesh, Uttar Pradesh, etc, were split in two during the last 1990s. We have used the undivided units because of the comparability of data over time.

<sup>3</sup> There are of course, exceptions to this larger pattern. For instance, there are forest-based economies in the northeast where poverty is low and indicators of human development are favourable. This could owe to the fact that STs in these states 'have

Unexpectedly, incidence of poverty is generally lower in areas with low agronomic potential, such as dryland regions located in large parts of the west and south of the country. These regions are instead historically prone to transient poverty as a result of drought. This scenario is likely to change fast, as some of the most critical coping strategies, such as groundwater irrigation or out-migration, are becoming increasingly non-sustainable.<sup>4</sup> One of the important manifestations of this changing scenario is growing urban poverty in regions where rural poverty is low.<sup>5</sup> As such, viewed in a dynamic context, many of the dryland regions in India are likely to fall into a deep spiral of chronic poverty, exiting which could be difficult.

Another important category consists of those areas caught in long, drawn-out socio-political conflicts, which make it almost impossible to trigger processes of economic growth and/or formation of human capital. Such pockets are located in many states, such as Assam, Bihar, Manipur, Jammu and Kashmir, parts of Andhra Pradesh and Orissa (Kumar et al., 2000).

The pattern is not uniform, and there are no unique and distinct spatial poverty trap situations in the country. In addition, the generalisability of the pattern becomes less possible when one moves from the macro to the micro context. As a result, both micro and macro realities are of great importance with respect to understanding how policies actually unfold in various context-specific situations.

Policy in India has a long history of addressing the development of 'backward areas', defined through multiple categorisations. These policies have achieved only limited success at best (Shah and Guru, 2004). The reasons for this are said to be twofold: first, the central focus of policies has been on 'mainstreaming' these areas into the larger processes of economic development, as opposed to addressing the root causes of poverty and its reproduction. Second, most of the policies have stopped at transferring special financial allocations to backward areas, without ensuring that institutional, organisational and administrative machineries are in place so that funds can be used effectively. Related to this is the fact that most funding for the development of backward areas comes from the central government. Although this ensures a committed flow of funds, irrespective of each state's financial situation (often very poor), it bypasses the critical process of consultation and negotiation among the chronically poor, transient poor and relatively better off (or the affluent) in each state. It is these people who hold final responsibility for implementing schemes designed and funded by central government.

Recent initiatives of the Planning Commission of India give special priority to the most backward and/or conflict-afflicted districts in the country. However laudable, such initiatives seem to be following the same pattern noted above. As a result, it is necessary to re-examine economic development policies at both macro and micro level. There is certainly a need to do away with the practice of planning only at macro level. The micro-level contexts of spatial poverty traps have to be the basis for strategies for development, especially for agriculture and human capital formation, at macro as well as micro level.

Section 2 describes spatial concentration of poverty across states and regions in India, by identifying the regions that experienced a higher intensity of poverty over the 12-13 years from 1987. Section 3 looks into the situation in the Southern region of Orissa, the state with the highest incidence of poverty, by undertaking a comparative analysis across regions in the state and also within the region. This is followed by a case study of four villages in Koraput district of Southern Orissa (Section 4), which is carried out in order to enable an understanding of the extent, nature and dynamics of poverty among rural households. Section 5 highlights the main findings of the paper and discusses policy implications.

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inalienable rights that they exercise on various assets including land and these tribals are not displaced and dispossessed. Perhaps it is their dominant status and the political power that they have enjoyed over long years that ensured their escape from poverty beyond simple income measures' (Radhakrishna and Ray, 2005).

4 In terms of depletion of groundwater in large parts of the dryland areas and growing socio-political conflicts between receiving and migrating communities.

5 According to official estimates for 2004-2005, the poverty ratio for rural areas was higher as compared with urban areas for nine out of 20 major states in the country (Dev and Ravi, 2008).



## 2. Spatial concentration of poverty in rural India

### 2.1 Poverty among states and regions in India

According to recent estimates, the poverty headcount ratio (HCR) in India declined from 36.0% in 1993-1994 to about 28.3% in 2004-2005 (Mahendra Dev and Ravi, 2007). The rate works out at 0.7% per annum, falling from 0.85% in the previous decade (i.e. 1983 to 1993-1994). Spatial concentration of poverty has remained more or less same. The top states in terms of poverty incidence in 1983 were Orissa, Bihar, West Bengal and Tamil Nadu (with almost the same poverty ratio), Madhya Pradesh, Uttar Pradesh and Maharashtra. The same states are present on the 2004-2005 list, in a similar order (Table 1); by 2004-2005, West Bengal had extracted itself from the top five and been replaced by Maharashtra. The top seven states contained nearly 74% of the poor in 1983; this had increased to nearly 78% by 2004-2005. Overall, there has been an increase in the concentration of the poor; such an increase has been registered by five out of the seven states (not West Bengal and Tamil Nadu).

**Table 1: Concentration of poverty in major states in India**

State	1983			2004-2005		
	HCR	Rank	% share	HCR	Rank	% share
Orissa	65.31	1	5.70	47.07	1	6.03
Bihar	62.71	2	14.64	41.53	2	16.53
West Bengal	53.60	3	9.77	25.67	7	7.23
Tamil Nadu	53.48	4	8.47	28.31	6	6.10
Madhya Pradesh	49.23	5	8.61	37.21	3	10.79
Uttar Pradesh	46.94	6	17.42	33.25	4	20.93
Maharashtra	43.13	7	9.04	29.95	5	10.36
Total of seven states			73.65			77.97
All India	44.93		100	28.27		100

*Source:* Adapted from Mahendra Dev and Ravi (2007).

At regional level (below which official estimates of poverty are not available), the scenario is similar. The top 20 or so regions with high incidence of poverty remained more or less the same between 1983 and 1999-2000 (estimates are yet to be produced for 2004-2005).<sup>6</sup> Table 2 shows that these regions were spread mainly over eight to 10 of the 17 major states in the three surveys conducted between 1983 and 1999-2000. In 1987, 19 of the regions were within eight of the major states, whereas in 1993-1994 and 1999-2000, there were 21 within nine of the major states.

**Table 2: Number of top regions by level of poverty in major states**

State	No. of regions as per			Change 1993-1994 to 1999-2000
	NSS 43rd round	NSS 50th round	NSS 55th round	
	1987	1993-1994	1999-2000	
Orissa	3	3	2	-1
Madhya Pradesh	6	6	6	NC
Maharashtra	3	3	2	-1
Bihar	3	3	3	NC
Andhra Pradesh	1	1	2	+1
Assam	1	1	2	+1
Tamil Nadu	-	1	1	NC
West Bengal	-	-	1	+1
Uttar Pradesh	1	2	2	NC
Karnataka	1	1	-	-1

*Note:* NSS = National Sample Survey; NC = No Change.

*Source:* Based on estimates prepared by Jha and Sharma (2003).

<sup>6</sup> There were problems of comparability of poverty estimates during 1999-000, but it is not likely that these influenced the relative ranking of regions.

Four regions exited the overall list (Inland Northern Maharashtra, Inland Eastern Maharashtra, Coastal Orissa and Inland Northern Karnataka) and five regions entered it (Inland Southern Andhra Pradesh, South Western Andhra Pradesh, Plain Western Assam, Assam Hills and Western Plain West Bengal).

We identified 15 out of the 20 poorest regions which had remained similarly placed at all the three points of time (Table 3).

**Table 3: 15 regions of highest poverty incidence showing up in all three NSS rounds**

	<b>Region (in descending order)</b>	<b>Regional character</b>
1	Orissa – Southern	Forest-based
2	Madhya Pradesh – South Central	Forest-based
3	Madhya Pradesh – Chhattisgarh	Forest-based
4	Orissa – Northern	Forest-based
5	Madhya Pradesh – South Western	Forest-based
6	Maharashtra – Eastern	Forest-based
7	Bihar – Southern	Forest-based
8	Madhya Pradesh – Central	Other
9	Bihar – Central	Dry land
10	Uttar Pradesh – Central	Other
11	Tamil Nadu – Coastal Northern	Forest-based
12	Bihar – Northern	Other
13	Madhya Pradesh – Vindhya	Forest-based
14	Madhya Pradesh – Malwa Plateau	Other
15	Uttar Pradesh – Eastern	Dry land

*Note:* Categorisation of regions based on Shah and Guru (2004).

*Source:* Based on estimates prepared by Jha and Sharma (2003).

These 15 regions are spread over six states, all of which are also present in Table 1. It is also important to note that a majority (nine out of the 15) of the regions are forest based (Shah and Guru, 2004). Of the 15 regions, 12 figure at all points of time. These are within four states: Orissa (two), Madhya Pradesh (six), Bihar (three) and Uttar Pradesh (one).

## **2.2 Correlates of poverty among different categories of regions**

The scenario above clearly suggests a close link between forest-based economies and high incidence of poverty in India. This phenomenon has been examined by using regional estimates for rural poverty during the early 1990s. Shah and Guru (2004) examined correlates of poverty by using 16 variables representing natural, human and physical assets, along with economic development across the regions, as defined by the National Sample Survey Organisation (NSSO). The analysis, using official poverty estimates of 1993-1994, tried to capture broad patterns of correlates of income poverty across three categories of region: predominantly forest based, dryland and other. In what follows, we highlight some of the important findings of the analysis.

When all the regions were taken together, it was found that poverty is particularly associated with access to natural resources, land and labour productivity, electricity and infrastructural development. Regions with higher rural poverty had higher urban poverty. Meanwhile, higher land and labour productivity in agriculture lead rural (male) wages to rise, which in turn has a poverty-reducing impact. To a large extent, this confirms the existing evidence on the critical role of agricultural growth in reducing poverty, highlighted by several other more sophisticated analyses at the all-India level (Ravallion, 2000).

The dynamics were somewhat different within categories. For instance, within dryland regions, presence of wasteland was found to be negatively associated with poverty. Although this seems strange at first glance, it may be explained by higher incidence of out-migration from such regions, given the lower natural resource endowments. Together, this indicates a lower incidence of poverty in

areas with a high proportion of wasteland and higher levels of labour productivity, presumably because of out-migration. As a result, some rural poverty may be shifted to urban areas and eventually poverty evens out across the two. States with dryland regions also see a higher degree of urbanisation. We do not have regional data to substantiate the impact of migration on poverty, but the existing literature does support this phenomenon at macro level (NIRD, 2000) as well as across the state (Shah et al., 2005).

The pattern is different again in the forest-based regions. Here, migration did not seem to be working as an important factor in poverty, and rural poverty did not have any significant association with urban poverty. Instead, what seemed to be occurring was occupational diversification within rural areas rather than towards urban areas, as was the case in dryland regions. Access to electricity was found to be important in reducing poverty, and labour productivity once again turned out to have a poverty-reducing effect.

The remaining regions (in the category of 'other') showed a pattern similar to that observed at macro level.

The observed level of rural poverty is already mediated by population movement (say, from rural to urban or from dry to wet) and by processes of economic diversification, determined by certain exogenous factors. What we observe, therefore, is a net outcome after accounting for these (and also some other) mediating factors. The areas with a significantly high proportion of rural poverty, i.e. 50% or more, were found to be concentrated mainly in forest-based regions, although pockets of widespread poverty like these existed within all the three categories.

To a very large extent, then, Indian spatial poverty traps are characterised by forest-based economies. In addition, access to natural resources, especially in terms of irrigation and land, as well as labour productivity in agriculture, are among the most important factors impacting on rural poverty among regions in the country.

### **3. Remoteness and chronic poverty in forest-based regions in Orissa<sup>7</sup>**

#### **3.1 Context**

Orissa has remained the poorest of all the Indian states. In 2004-2005, poverty measured in terms of HCR in Orissa was at 47.57% at the aggregate level: 48% in rural areas and 43% in urban areas (Mahendra Dev and Ravi, 2007). Meanwhile, the forests of Orissa (accounting for 30% of the land) support about 40% of the population and about half of the poor in the state.

This section examines patterns of poverty across regions in Orissa and discusses poverty influences, which vary even across the two forest-based regions within the state. Section 4 will go on to look in more detail at one forest-based region in Southern Orissa, with a view to identifying critical factors in poverty incidence for forest dwellers in particular.

#### **3.2 Regional disparity and social exclusion: An overview of poverty in Orissa**

##### **3.2.1 Poverty across regions in Orissa**

Two important features characterising the poverty scenario in Orissa are: i) high incidence with significant regional disparity; and ii) high concentration in forest-based economies. The Southern region emerges as a clear exception to the state's poverty reduction progress since the early 1980s. Estimates prepared by de Haan and Dubey (2003) indicate that, although rural poverty measured in terms of HCR reduced significantly in the Coastal and Northern regions, incidence of rural poverty in the Southern region registered an increase from 81% in 1983 to 86% in 1999-2000 (Table 4).

A closer look at the estimates in Table 4 shows that, while both Southern and Northern regions have experienced rises in rural poverty, the increase is much more significant in the case of the Southern region. In fact, poverty in the Northern region declined until 1993-1994. There was a reversal in this movement during 1999-2000 but poverty at this point still remained below the 1983 level. Poverty in the Southern region increased even during the early 1980s. The only period during which poverty in Southern Orissa declined was between 1987-1988 and 1993-1994. Urban poverty in the Southern region increased between 1983 and 1987-1988, declined after 1988 but increased again between 1993-1994 and 1999-2000.

It is likely that the marginal increase in poverty – both rural and urban – in the Southern region during the two sub-periods (1983 to 1987-1988 and 1993 to 1999-2000) could have been a result of severe drought conditions during the respective financial years. Part of the reason for increased poverty between 1993-1994 and 1999-2000 in both Southern and Northern regions could lie in problems converting physical units of food grain into consumption expenditure by using market prices rather than the price actually paid by the poor (de Haan and Dubey, 2003). Nevertheless, even if a 10% lower poverty line for the Southern region is used, incidence of poverty still remains at around 77% (Panda, 2004).

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<sup>7</sup> This part of the paper draws heavily on a larger study carried out on Southern Orissa (see Shah et al., 2006).

**Table 4: Poverty HCR among regions in Orissa**

Year	NSS regions			Orissa state
	Coastal	Southern	Northern	
<b>Rural</b>				
1983	57.97	80.76	75.22	68.43
1987-1988	48.37	82.98	61.01	58.62
1993-1994	45.33	68.84	45.82	49.80
1999-2000	29.30	86.16	50.98	48.13
<b>Urban</b>				
1983	46.15	45.48	54.35	49.66
1987-1988	42.11	52.93	39.90	42.58
1993-1994	47.24	41.94	32.54	40.68
1999-2000	41.65	43.97	45.81	43.51
<b>Combined</b>				
1983	56.47	79.08	72.28	66.24
1987-1988	47.67	80.29	58.16	56.75
1993-1994	45.57	66.07	43.92	48.64
1999-2000	31.51	81.28	50.10	47.37

*Note:* NSS regions consist of undivided districts as follows: Coastal: Baleshwar, Cuttack, Puri, Ganjam; Southern: Phulbani, Koraput, Kalahandi; Northern: Sundargadh, Bolangir, Sambalpur, Kendujhar, Dhenkanal, Mayurbhanj.

*Source:* Based on de Haan and Dubey (2003).

### 3.2.2 Poverty among social groups

As in most parts of India, SCs and STs in Orissa suffer a double disadvantage, i.e. they are socially as well as economically marginalised. Available estimates suggest that in 1999-2000 these communities constituted 64% of the poor in Orissa. It has been estimated that 25% of the total population belonging to STs (and located mainly in forest-based regions) account for 40% of the total rural poor in Orissa (Glinskaya, 2003). A significantly large proportion of both STs and SCs are located in forest-based districts, especially in Southern Orissa.

An important question that often arises in the context of high incidence of poverty among STs and SCs is whether poverty is high mainly because of their social identity and marginalisation or whether it is more because of their forest dependence and physical isolation. Since both processes are at work simultaneously, it may be useful to examine this issue empirically, in light of the poverty estimates generated by de Haan and Dubey (2003) for the year 1999-2000. Table 5 presents estimates of poverty by region and social group.

**Table 5: HCR by region and social group (rural) in Orissa: 1999-2000**

Region	Social group			
	ST	SC	Other	All
Coastal	66.63	42.18	24.32	31.74
Southern	92.42	88.90	77.65	87.05
Northern	61.69	57.22	34.67	49.81
All (Orissa)	73.08	52.30	33.29	48.04

*Source:* Based on estimates by de Haan and Dubey (2003).

In total, 73% of STs are poor in the state. Incidence of poverty among STs is lower in the Northern (61.7%) and Coastal (66.6%) regions. The proportion is significantly higher in the Southern region (92.4%), which contains three out of the seven forest-based districts in the state. For SCs, the same is the case: in the Northern and Coastal regions, poverty incidence is at 57.2% and 42.2%, respectively; for the Southern region, this figure is at 88.9%.

Nevertheless, when looking at other social groups, it becomes evident that poverty is higher in Southern regions whatever social group is taken into consideration. The non-SC/ST population in the Southern region has higher incidence (77.7%) of poverty even in comparison with STs in the Northern

and Coastal regions (61.7% and 66.6%, respectively, as we have seen). This implies that STs outside the Southern region can be better off than all other social groups in the Southern region.

This leads to the conclusion that, even though poverty is higher in Southern Orissa for STs and SCs than for other social groups, there are factors specific to the Southern region itself that are relevant to high incidence of poverty for all groups, as compared with other regions in the state. As such, regional characteristics are of more significant than tribal characteristics (i.e. the forest-based nature of the Southern region).

### **3.2.3 Importance of regional characteristics in poverty incidence**

The above observation lends support to the assertion made earlier about high and increased incidence of rural poverty in forest-based areas in Orissa. Meanwhile, the sustained high (and, in fact, increased) level of poverty in Southern Orissa is an outcome of a complex mix of factors, natural, historical and economic (see details for Koraput district in Section 4).

These factors have led to relative deprivation even as compared with the Northern region (which also has a fairly substantial forest base). A recent study by Padhi et al. (2005) suggests that better opportunities for off-farm employment, especially mining activities, combined with a better wage rate and less constraining forest polices, seem to have led to a relatively better outcome in terms of poverty reduction in the Northern region as compared with the Southern region. The Northern region also has two other favourable factors: relatively lower incidence of exogenous shocks and lower extent of development-induced displacement as compared with the Southern region.

The relatively stronger import of spatial characteristics needs to be seen in light of the fact that STs across regions in Orissa have a relatively larger size of cultivable land as compared with all other social groups (de Haan and Dubey, 2003). Only 'other' communities in the Northern region have landholdings that are a similar size to those of STs in the Southern region. This suggests that ownership of land per se is not a major issue. The real issue with respect to the prospects for poverty reduction induced by agricultural growth in the region pertains to the agronomic potential of the region. Land owned by STs is likely to be on difficult terrain, to be located upstream from the catchment of a watershed area and to have poor market connectivity. This is also the case for other social groups (although for smaller areas of land). The fact remains that, even if STs (or other social groups) own forest land, there are severe limitations with respect to ensuring livelihood security among communities.

## 4. Poverty in Southern Orissa: Case study of Koraput district

Southern Orissa has the highest incidence of poverty of all rural regions in India: as much as 87% of the population lives below the poverty line (see Table 4). Poverty is most likely to be chronic for a large proportion of the poor in the region. Incidence of poverty has increased in most of the state's forest-based districts but is significantly higher in the Southern region as compared with the Northern region. The worst scenario prevails in Koraput (undivided) district, with as much as 92% of the population living below the poverty line (Panda, 2004).

This case study looks at four villages in Lamtaput block of undivided Koraput district. Lamtaput is situated 35km from Jeypore, a major district trading centre. A large amount of the area is made up of open (degraded) forest and it is physically remote in terms of connectivity. Lamtaput is on the Southern edge of the state, with mountains acting as a natural border between Orissa and Andhra Pradesh. Of the four villages selected for the study, Hanumal and Kamel are located near the road and Balel and Sindhiguda are about 5km from it. The more remote villages are almost the last points of habitation in the foothills of the mountains (for details of the sample villages, see the Annex).

This study is based mainly on primary data collected from households in the sample villages.<sup>8</sup> A quota sampling method was used to select households from which to collect primary information. From each village, 40 households were selected using random sampling: the total sample size was 159 households (one household did not respond to the survey). In addition, a number of group discussions were conducted in order to obtain a better understanding of issues pertaining to institutions and governance.

### 4.1 A brief background to Koraput district

The analysis here is divided into two parts. The first gives a brief description of how various socioeconomic, political and physical factors have combined to create a situation of isolation and sustained high incidence of poverty. The second presents a statistical profile and a mapping of important features of Koraput district as they stand now.

#### 4.1.1 Socioeconomic, political and physical factors in Koraput

The undivided Koraput district is characterised by certain features, historical, natural and geographical. The district lies on a section of the Eastern Ghat discontinuous range of mountains and holds five natural divisions, with a mean elevation of 3000, 2500, 2000, 1000 and 500 feet above sea level, respectively. A number of mountain ranges and isolated hills rise out of this tableland. The district has two parts, each characterised by a distinct type of rock: the 2000 feet plateau of Jeypore, with its much lower extension down into the Malkangiri subdivision (Malkangiri district), and the high hilly regions of the Eastern Ghat, lying between the Jeypore plateau and the Visakhapatnam coastal plains. This geographical setting has to a large extent isolated the region from the plain coastal districts of Orissa. Among the consequences of this, the region has been able to preserve much of its varied and prolific fauna and flora, and its aboriginal inhabitants have not undergone radical change as a result of contact with modern civilisation.

The major part of the current-day Koraput district was completely isolated from the plains for several centuries owing to the non-existence of communication. Outsiders never penetrated the area because of the steep hills and dense forest, as well as a fear of malaria. Road construction began only in 1863,

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<sup>8</sup> Initially, a complete listing of households was carried out using group meetings and a participatory rural appraisal (PRA), but this exercise faced difficulties with respect to logging access to and/or ownership of land. As a result, we tried to rely more on personal interviews based on sample households. Given the fact that communities within the sample villages are fairly homogeneous in terms of economic wellbeing, and also that the villages are relatively small in terms of the number of households, a subset of households was selected for detailed enquiry.

when the Madras government first took over the administration of Jeypore. This work intensified only after World War I, slowing down during WWII and then regaining momentum after Independence. Certain pockets are still not linked to the main road. Poor communications thus remain a major constraint with respect to connectivity in the district.

At the time of Independence, about 70% of the area in Koraput district was covered by forest. At one point in time, the whole forest was under shifting cultivation; because of this, forest coverage now comprises plants at various stages of growth. In the more densely populated areas, such as the hills to the South of Koraput, repeated shifting cultivation over a long period of time has reduced the forest to open scrub or barren soil. The hills of Koraput originally supported a subtropical evergreen type of forest, which has now been largely depleted owing to repeated burning. The forests in these ranges are of great climatic importance, as they help with temperature control and are an important influence on rain in the district.

From 1891, management of forest resources was governed by the Madras Forest Act, which came to be known as the Jeypore Forest Rule. The act framed a number of specific regulations. With the abolition of the zamindari system in 1952, the government of Orissa took over the management of the forest. Separate rules were set up, including the Koraput District Forest Rule, the Waste Land Rule and the Koraput Reserved Land Hunting and Shooting Rule. Under the Koraput Forest Rule, the forest area was divided into three categories: reserve land, unreserved land and protected land. Protected forests were solely for the use of villagers in nearby areas. Nevertheless, no rights were given to the villagers with regard to forest management, and management of the forest was far from scientific. By and large, the sketchy work plans drawn up under the zamindari system were continued, even in the post-Independence era.

Prevention and control of shifting cultivation (known as podu or jhoom cultivation) took centre stage in forest management for many years. However, abolishing this age-old practice without strong resistance from the people would be almost impossible. The practice is particularly rampant among the most primitive tribes, which inhabit the remotest part of the district. This is not to suggest that shifting cultivation is necessarily or mainly responsible for the current condition of the forest. On the contrary, had the practice been combined with an effort to give local communities a stake in managing the forest, more sustainable resource management might have been achieved (Ramakrishnan 1992). In the absence of this, and as a result of the state's prioritisation of commercial interests, shifting cultivation began to be seen as an important source of degradation; controlling such practices thus became a crucial element of the state forest policy.

In consequence, remoteness emerged as an important factor explaining the highly degraded status of the forest in Koraput, given that it limits the possibility of effectively reducing the practice of shifting cultivation. At present, the government has restricted the practice of shifting cultivation and cultivation beyond a certain height on the hilltops. In addition, the government has initiated a scheme to bring down tribal people from the hilltops and settle them on the plain. Land is given for free, along with facilities for irrigation and drinking water. Moreover, cultivable wasteland being scarce, about 40,000 hectares of forest have been cleared under the Dandakaranya Project for the settlement of tribals and refugees. Similarly, forest land was given to STs and SCs to check further increases in areas under jhoom cultivation. Despite common perceptions, people in the forest area have reasonably good access to forest resources, such as land and non-timber forest products (NTFP), also highlighted as a need in contemporary policy discourse. At the same time, access to and ownership of land are the most contentious issues in the forest-based economy, owing to inadequate land settlements, absence of proper land records, encroachment and illegal shifting cultivation practices.

Enhancing irrigation has emerged as the key to increasing agricultural productivity; this, in turn, is critical to reducing poverty in most parts of rural India (Ravallion, 2000). However, this strategy has relatively limited applicability, owing mainly to unfavourable topography in the forest/hilly regions: irrigation is impossible in many areas, as the terrain is characterised by rugged tracks and varying altitudes. There are about a hundred minor irrigation sources, mostly tanks and small reservoirs, each



irrigating fewer than 60 acres. These sources are together estimated to irrigate about 5000 acres. Tank irrigation was not in practice until recently. Most of the old tanks, called mundas or bandha, were intended for bathing and drinking purposes. More recently, tanks and sagars, formed through the construction of large embankments, have been used for irrigation (although, as we have seen, these are available for a very small proportion of the agricultural land). Two larger irrigation projects, on the Kolab and Indravati Rivers, have an estimated irrigation potential of 40,000 acres, although very little is available to the forest dwellers in remote parts of the district.

The district is also rich in mineral deposits, such as china clay of inferior quality, which can be found in several areas of the Koraput plateau. Pottery clays are also found in some parts of the district. Gold in the form of very fine particles is scattered in the river sands. Graphite is widely obtainable, although in small quantities. Among others, limestone, manganese and mica are present in certain parts of the district. Extraction of minerals poses another challenge to the forest and forest dwellers, who face dislocation without compensatory employment/income support.

#### 4.1.2 Koraput: A statistical profile

The undivided district of Koraput has certain dubious distinctions. The district not only holds degraded forest, but also ranks the highest among the top three districts in Orissa on several indicators, such as: incidence of poverty; percentage share of total rural poor in Orissa; percentage share of degraded forest to total area; rural illiteracy; frequency of drought; and relative development index (RDI). The district also has a high percentage share of both the state's total geographical area and its tribal population.

All these features indicate a log jam of adverse conditions, which lead to a significantly high proportion of the district's population living below the poverty line. In 1999-2000, as much as 92% of the population in Koraput was poor, as compared with around 48% at state level. The picture is equally dismal with respect to indicators of human capability, such as literacy and the overall HDI. The pertinent question therefore regards whether Koraput faces special disadvantages even in comparison with other forest-based districts in the region/state.

This question has been examined in light of detailed information pertaining to selected districts in the state.<sup>9</sup> Table 6 shows changes in the RDI of Koraput and other forest-based districts (undivided) in the state. Koraput had the highest score in 1991, and this status had worsened compared with 1971. Koraput is followed by the other two districts from the same Southern region. Forest-based districts in the Northern region (Keonjhar, Mayurbhanj, Bolangir and Dhenkanal) performed better than the three districts of the Southern region.

**Table 6: Changes in the RDI in some of the districts of Orissa**

District	RDI		
	1971	1981	1991
<b>Southern region</b>			
Kalahandi	9	11	11
Phulbani	13	12	12
Koraput	11	13	13
<b>Northern region</b>			
Dhenkanal	8	9	7
Keonjhar	12	10	10
Bolangir	6	8	8
Mayurbhanj	10	7	9
<b>Coastal region</b>			
Ganjam	5	5	5

Source: Based on Government of India (2003).

<sup>9</sup> A similar question has been raised and analysed in the context of the separate 'Koshala state', covering a large part of the forest area within the state. For details see Pradhan et al. (2004).

Recent documents, such as the State Development Report (SDR) (Government of India, 2003) and the Human Development Report (HDR) (Government of Orissa, 2004), provide useful information on some of the major indicators of poverty, human development and infrastructure across districts in Orissa. We used these estimates to prepare a comparative profile of districts in the Southern and Northern regions where forest area forms a substantial part of the resource base. Data for 20 of the new districts (created in 1997), which made up nine districts in the earlier scheme, have been compiled and are presented in Table 7 (showing both old and new districts). The four new districts in the undivided Koraput district are adversely placed in terms of several of the indicators e.g., literacy, infant mortality rate (IMR), HDI, proportion of open (degraded) forest and proportion of households below the poverty line (BPL).<sup>10</sup>

This is further substantiated by the fact that the Southern region has a fairly small share of the gross domestic product (GDP) of the state. In 1998-1999, the Southern region constituted only 13% of the state's GDP, as against 18 per cent share in the state's population and 20 per cent share in the total area in the state (Pandey and Jena, 2004). This share had declined from 16.2% in 1993-1994. In addition, the three districts in the Southern region had the lowest composite development index in the state (Planning Commission, 2002). This scenario of a low and declining share in the state economy reflects both the cause and the effects of long processes of marginalisation of the region and the district.

**Table 7: A comparative profile of districts/regions based on several indicators**

	Pop. density (2001)	Tribal pop. (%) (2001)	Sex ratio (2001)	Literacy (2001)	IMR (1999)	HDI	Forest area as % of geog. area 1999-2000	Open forest area as % of total forest area 1999- 2000	BPL (rural) (1992)
<b>I. Southern Orissa</b>									
1. Koraput	134	49.6	998	36.20	136	0.431	16.9	54.9	86.6
Malkangiri	83	57.4	996	31.26	151	0.370	37.8	50.8	91.9
Navarangpur	192	55.0	992	34.26	117	0.436	21.7	40.3	90.6
Raygada	116	55.8	1029	35.61	131	0.443	38.6	52.1	81.6
2. Kalahandi	168	28.6	1000	46.2	51	0.606	27.0	45.7	86.8
Nuapada	138	34.7	1006	42.29	62	0.581	32.1	52.5	86.3
3. Phulbani	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	93.0
Boudh	120	12.5	985	58.43	104	0.536	41.3	39.8	85.2
Kandhamal	81	52.0	1008	52.95	169	0.389	67.2	43.2	
<b>II. Northern Orissa</b>									
4. Bolangir	203	20.6	983	54.93	97	0.546	15.1	49.2	91.9
Sonepur	231	9.8	966	64.07	96	0.566	13.4	44.7	67.4
5. Sambalpur	140	34.5	970	67.01	102	0.589	49.4	30.3	65.6
Bargarh	231	19.4	976	64.13	100	0.565	15.5	53.2	70.0
Deogarh	93	33.6	980	60.78	49	0.669	46.2	42.5	78.5
Jharsuguda	245	31.3	946	71.47	71	0.722	13.3	61.2	53.7
6. Dhenkanal	239	12.8	962	70.11	97	0.591	28.4	47.9	84.2
Angul	179	11.7	941	69.4	95	0.663	41.6	37.4	84.3
7. Sundargadh	188	50.2	957	65.22	62	0.683	42.2	35.9	80.9
8. Keonjhar	188	44.5	977	59.75	117	0.530	40.7	50.6	82.9
9. Mayurbhanj	213	56.6	980	52.43	48	0.639	39.7	30.2	90.8
<b>Orissa (Total)</b>	<b>236</b>	<b>22.1</b>	<b>972</b>	<b>63.61</b>	<b>97</b>	<b>0.723</b>	<b>31.4</b>	<b>42.7</b>	<b>78.7</b>

*Note:* Numbers refer to nine out of 13 old districts. The estimates pertain to the divided districts as per the new scheme.

*Sources:* Census of India 2001, Government of India (2001); and Orissa Human Development Report, Government of Orissa (2004).

<sup>10</sup> BPL estimates are not the same as the official poverty estimates. The former is based on indicators of vulnerability at household level and the latter is based on per capita consumption expenditure compared with the official poverty line.

Physical remoteness is thought to have significant negative impacts on features such as literacy, access to health services, employment and income. Moreover, the benefits of access may not be realised in a predominantly tribal setting such as that in the villages covered by the study, where the economy is still at a mere subsistence level, and marketisation is fairly low.

## 4.2 Households and their coping mechanism

Household members collect various minor forest products for most of the year and seek wage labour in and around their village. It is common for members of the household to visit weekly markets to make small purchases (such as grains available from the public distribution system), to indulge in drinking country liquor (and, of late, branded types) (adult males) and to seek credit for substantial expenditures on social functions, food grain procurement and health services. A typical household either is landless or operates a very small holding. One-third of households do not own any land and the average holding size is three acres. The problem is not so much one of access but one of land title quality, since a large proportion of the land has not been surveyed. About 17% of sample households reported encroachment on public land; this consisted of both landed as well as landless households.

### 4.2.1 Income from major activities

Table 8 presents estimates of average income from different sources, across categories of households and villages. Estimates of income exclude livestock, as it was very difficult to calculate the value of products that are used mainly for consumption. Similarly, estimates for forest produce cover the value of marketed products only. In this respect, income estimates are underreported.

**Table 8: Average annual income per household, by social group**

Village	Caste	Cultivation	Wage labour	Forest	Other	Average annual income (all sources)	
						Per HH	Per capita
Balel	SC	4750.0	4476.6	1803.8	7229.3	13918.6	2662.4
	ST	8007.9	3791.7	1304.2	4960.7	13747.2	2980.4
	Other	7250.0	2700.0	3800.0	1200.0	14950.0	2491.7
	All	6976.4	4073.6	1606.5	6041.7	13854.4	2825.1
Sindhiguda	SC	4410.0	4600.0	2576.7	2016.7	10600.0	1684.1
	ST	4603.2	2710.0	2165.8	1600.0	9029.6	1944.5
	Other	-	-	-	-	-	-
	All	4593.1	2824.6	2197.4	1778.6	9147.4	1925.0
Hanumal	SC	3178.2	3697.9	1717.9	4217.1	9579.5	1925.5
	ST	5206.4	2663.3	1770.0	6700.0	10432.3	2732.4
	Other	900.0	9350.0	2095.0	2400.0	14745.0	2457.5
	All	4322.6	3251.4	1757.0	4729.1	10193.0	2394.3
Kamel	SC	5209.0	3806.3	1867.7	3066.7	9167.1	2380.3
	ST	6039.6	2197.9	1255.8	8250.0	11862.7	2641.4
	Other	9013.3	3136.9	1504.2	7440.0	14871.8	3437.4
	All	7365.3	2972.6	1505.3	6616.7	12610.3	2940.8
All villages	SC	4046.9	4076.1	1836.9	5471.8	11263.3	2287.1
	ST	5623.9	2860.6	1755.7	5175.1	10822.7	2462.2
	Other	8493.5	3457.8	1648.6	5828.6	14869.4	3341.1
	All	5688.6	3284.6	1765.9	5397.2	11459.2	2522.1
% of total HHs		42.5	25.2	15.1	17.2		

Source: Shah et al. (2006).

Agriculture is the major contributor, accounting for 42.5% of estimated income. This is followed by wage income (25.2%), forest resources (15.1%) and other activities (17.2%). The highest per capita income from all sources is seen in Kamel, which also has the highest income per household from agriculture and the highest landholding size. What is surprising, though, is that average income from agriculture in the two more remote villages (Balel and Sindhiguda) is higher than that in Hanumal,

which is less remote. This could owe to higher soil fertility in the former (forest cover is better maintained, owing to relative remoteness), although it is difficult to confirm this. It is also interesting to note that Sindhiguda has the highest average income from the forest: the village seems to have relatively better forest resources than other areas. This is followed by the two less remote villages, which may have benefited owing to better access to markets. Income from collection of forest produce varies across households.

It is important to note that STs have higher than average per capita income in the case of three villages (except Kamel). However, STs have lower than average income per household (except Hanumal). One of the possible explanations for this could be that STs generally have smaller family size, owing to the widely prevalent norm of setting up nuclear families as compared with other communities. Overall, the evidence suggests that the sample households have an average annual income ranging from Rs9147 to Rs13,854, which is significantly lower than the official poverty line for the region.

#### 4.2.2 Coping strategies during shocks

It is important to investigate the components of coping strategies that sample households adopt during shocks – external, internal or price-related. Internal shocks refer to household-specific events, such as death or illness of the main earner, or huge expenditure on social or other occasions. External shocks refer to droughts, floods, etc. Some households may not have actually experienced any internal shocks; for these households, responses are based on perceptions.

Table 9 presents information on the various strategies that households adopt when facing an internal shock. Reducing cereal consumption in terms of quantity and/or quality is the most important strategy, as reported by a large number of households. For instance, as much as 38% of households reported a partial shifting from rice to ragi; though more nutritious, ragi, like other millets, is considered an ‘inferior’ good and costs less in the market as compared with rice. What is more alarming is that about 30% of households reported a net reduction in cereal consumption in order to cope with internal shocks.

**Table 9: Coping strategies during internal shocks (% of households)**

No.	Coping strategy	Balel	Sindhiguda	Hanumal	Kamel	Total
1	Exploitation of forest resources	0.0	15.7	7.5	6.3	29.6
2	Reduced consumption of rice	3.1	20.1	9.4	5.7	38.4
3	Reduction in consumption	7.5	9.4	5.0	8.2	30.2
4	Borrowing from moneylender	3.1	9.4	2.5	6.3	21.4
5	Credit from shops	3.8	0.0	1.6	8.2	16.3
6	Borrowing from relatives	0.0	0.0	0.0	2.5	2.5

*Note:* Borrowing here refers that with interest.

*Source:* Shah et al. (2006).

Another important component of households’ coping mechanisms is increased use of forest resources for self-consumption and for selling in the market. The latter is generally underreported but the reality is that NTFP is an important part of households’ livelihood strategies under normal situations and becomes an increasingly significant component of coping mechanisms during shocks.

About 21% of households reported borrowing from moneylenders in order to cope with difficulties arising from internal shocks. In addition, 16% reported borrowing from shopkeepers/traders. Many of those who borrow under stress may not be able to exit indebtedness for a very long time which, in turn, may push households into a downward spiral of chronic poverty. This situation may be further aggravated by the fact that the region is prone to frequent external shocks, especially drought. Exiting poverty may become almost impossible for households once they are trapped in a downward spiral, started by an event such as the death or ill health of the main earner (Krishna et al., 2003).

### 4.2.3 Changes in livelihood patterns in the past 10 years

Having looked at the current status of households, we now turn to investigate important changes in households' wellbeing over time. This has been captured using households' perception-based responses (Table 10). A substantially large proportion of households reported improvements in quality of food, housing and clothing. Besides this, improvements have been noticed in terms of connectivity, information/exposure and agricultural practices. There have been some negative changes as well, with respect to conversion of forest for agricultural use, reduced wildlife and increase in temperature. This suggests some kind of trade-off between the improved livelihood base and the quality of the environment. Sustaining improvements may become increasingly difficult: this is being reflected in the sustained high level of poverty, especially in the wake of the increasing population in the region. Improvements, at best, may have helped reduce the extent of severity, but not the duration of poverty.

**Table 10: Changes in livelihood base over the past 10 years (% of households)**

	Balel	Sindhiguda	Hanumal	Kamel	Total
Consume better quality food	11.3	19.5	23.9	20.1	74.8
Wear better clothes	9.4	15.1	22.6	19.5	66.7
Access to transport	15.1	2.5	6.9	15.7	40.3
Improvement in housing	10.7	3.8	6.3	16.4	37.1
Decrease in death rate	10.1	0.0	0.6	13.2	23.9
Access to medicine from government hospital	6.9	20.8	13.2	15.1	56.0
Exposure to outside world	8.8	3.1	2.5	11.9	26.4
Use chemical fertiliser	6.3	1.9	3.1	13.8	25.2
Turning forest to agricultural land	0.0	21.4	5.7	13.2	40.3
Increased livestock population	3.1	2.5	2.5	8.2	16.4
Decrease in superstitious beliefs	0.0	0.0	3.1	5.7	8.8
Increase in temperature	1.3	0.0	0.0	9.4	10.7
Decrease in wildlife	0.0	0.0	3.1	0.0	3.1
Increase in violence	4.4	1.3	3.1	11.3	20.1
Reduction in liquor consumption	0.0	1.3	0.0	4.4	5.7
Education for children	5.0	0.0	0.0	8.2	13.2

*Source:* Shah et al. (2006).

### 4.3 Poverty mapping of sample households

An attempt was made to identify households' wellbeing in terms of community wealth ranking, using a participatory method, covering all households in the villages. According to the community-based ranking, up to 98% of households were considered poor. Of all households, about 50% were categorised as extreme and highly poor and another 28% as average poor. The remaining one-fifth of households were in the category of low poverty owing to external shocks, such as very severe drought. Incidentally, the eight non-poor households were all in Kamel.

An attempt was also made to estimate incidence of poverty using the official poverty line.<sup>11</sup> In 1999-2000, the poverty line in terms of per capita monthly consumption expenditure (MPCE) for rural Orissa was Rs300 (Deaton, 2003). This, according to some scholars, is on the high side, since the actual price of staple food grains paid for by rural households in Orissa is likely to be lower than the price considered in defining the poverty line (Panda, 2004). Hence, instead of inflating the poverty line of 1999-2000 to apply it to consumption expenditure data from 2004, the MPCE poverty line of Rs300 has been maintained for use in identifying the poor.

<sup>11</sup> Initially, an attempt was made to classify households into four categories: >25% and <25% below the poverty line and <25% and >25% above it. This categorisation did not work since three-quarters of households were clustered in the first group, i.e. >25% below the poverty line. Hence, households were classified into three categories by splitting the first group into two. Meanwhile, only a few households were above the poverty line. As such, the two groups of non-poor households were merged. Thus, the four-way categorisation of poor refers to those having MPCE >50%, 25-50% and <25% below the poverty line and the group above the poverty line. We have termed these categories 'severe poor', 'medium poor', 'moderate poor' and 'non-poor'.

Table 11 presents estimates of poverty among the sample households. About 31% of households belong to the category of 'severe poor', and about 43% are 'medium poor'. Together, they constitute the poorest in the region, with a MPCE level >25% below the poverty line. This leaves about 26% of households, out of which 15% are 'moderate poor' and only 11% 'non-poor'. This confirms the district-level estimate for Koraput (Panda, 2004), which suggests that 92.2% of people in Koraput lived below the poverty line in 1999-2000.

An important observation emerging from Table 11 is that the proportion of the severe poor is significantly higher among more remote villages (36.3%) as compared with less remote villages (25.3%). Conversely, the proportion of non-poor is higher in the less remote (13.9%) compared with the more remote villages (7.5%). This confirms the expected positive association between physical remoteness and incidence as well as severity of poverty. A similar pattern is observed in terms of average expenditure among households in the two categories of villages. However, this difference is less sharp compared with the above comparisons.

**Table 11: Incidence of poverty among sample households**

Village	MPCE (Rs)				All households
	Severe poor	Medium poor	Moderate poor	Non-poor	
<b>Balel (remote)</b>					
%	22.5	55	15	7.5	100
No. of HHs	9	22	6	3	40
<b>Sindhiguda (remote)</b>					
%	50	27.5	15	7.5	100
No. of HHs	20	11	6	3	40
<b>Sub-total (I) (remote)</b>					
%	36.2	41.3	15	7.5	100
No. of HHs	29	33	12	6	80
<b>Hanumal (less remote)</b>					
%	41	43.6	10.3	5.1	100
No. of HHs	16	17	4	2	39
<b>Kamel (less remote)</b>					
%	10	47.5	20	22.5	100
No. of HHs	4	19	8	9	40
<b>Sub-total (II) (less remote)</b>					
%	25.3	45.6	15.2	13.9	100
No. of HHs	20	36	12	11	79
<b>All villages</b>					
%	30.8	43.4	15.1	10.7	100
No. of HHs	49	69	24	17	159

Source: Adapted from Shah et al. (2006).

Further estimates indicate that incidence of poverty is highest among SCs (93.4%), followed by STs (90.3%) and then by other communities (75%). A similar pattern is observed in the case of the severe poor: as many as 45.7% of SC households belong to this category, as compared with 26.9% of STs and 15% of other types of household. The medium poor category comprises a significantly high proportion of ST households (47.3%) and others (50.0%). The fact that three-quarters of the households among the non-SC/ST are poor confirms that it is not merely social marginalisation that is at the root cause of chronic poverty.

## 5. State response and major challenges

The high incidence of poverty in the state has led to a sense of urgency with regard to finding solutions, with a central thrust on expediting economic growth. Faced with the major challenge of reducing poverty, the government of Orissa has launched a multi-pronged approach, consisting of (among others) food distribution, employment generation, information development, infrastructure development and capacity building. A number of studies have been undertaken in the recent past to generate a holistic perspective on development and poverty reduction in the state. It is important not to undermine the positive impacts of the various schemes that the state government has initiated in the most remote district/area: in the absence of these schemes, the poverty scenario in the region might have been worse. This is reflected in the positive changes reported by a large proportion of households. Moreover, a large proportion of the poor population is concentrated immediately below the poverty line (Deaton and Dreze, 2002; Panda, 2004). As such, a small increase in income may lift a substantial proportion of the currently poor above the poverty line. Thus, income transfers through schemes like the Public Distribution System (PDS) assume special relevance, as reflected by a recent spur in the policy to promote a food for work programme.

However, although the need to foster economic growth, particularly agricultural growth, can hardly be overemphasised, what is missing in the emerging perspective is integration with one of the most critical segments of the economy, i.e. forests and forest dwellers. This segment is significant not only in terms of its contribution to the state's revenue, but also because it supports the livelihoods of the poor, as well as rendering environmental services that are often realised beyond the state boundaries. Notwithstanding the significant link between forests and poverty, development discourse in the state continues to address the issues of forest resource management and people's livelihoods in a disjointed manner.

Overall, the region of Koraput is characterised by a scenario of sustained deprivation arising as a result of physical remoteness, adverse land factors, rapid depletion of forest resources, low agronomic potential and poor employment conditions. The log jam of adversities persists despite the large number of policy initiatives set up in the post-Independence era.

The micro-level evidence on Koraput highlights the severe poverty of a substantially high proportion of households in a forest-based region. About 31% of households belong to this category, with about 43% belonging to the category of medium poor. Although incidence of poverty is highest among SCs (93.4%), followed by STs (90.3%) and then other communities (75%), it remains widespread throughout all groups, which confirms the observation made earlier that it is not merely social marginalisation that is the root cause of chronic poverty.<sup>12</sup> Almost one-third of households reported a net reduction in cereal consumption in order to cope with an internal shock.

Despite this, policy prescriptions seem to be influenced by macro perspectives, thereby losing sight of the specific agro-ecological and social environments that characterise the forest-based regions. In the 10<sup>th</sup> Five-Year Plan, the Ministry of Environment and Forests adopted an Integrated Approach for Forest Conservation and Livelihoods of the Forest Communities. This is being facilitated by merging various centrally sponsored schemes under the Forest Development Agencies (FDA) within in every forest division. The persistence of high poverty in Southern Orissa has also led to a realisation that restoring the ecological balance between water, soil and plants and requirements for human as well as livestock populations should form the basic consideration for a developmental strategy for the area. The Planning Commission's first ever Long-Term Action Plan (LTAP) for Kalahandi-Bolangir-Koraput (KBK) region (which accounts for nearly 31.9% of the rural poor in Orissa as against 19.7% of the total poor in

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<sup>12</sup> Although STs and SCs showed higher incidence of poverty than other groups in Koraput, we have already noted how STs in Northern Orissa were better off than all groups in Southern Orissa.

the state) is an offshoot of this approach. Within this, forest development and sustainable livelihood support continue to remain separate entities; employment generation is the link between the two.

Solutions need to be sought by addressing the tricky issue of linking environment and development of people's livelihoods in this forest-based region. The critical issue, as we have seen, is not so much the marginalisation of STs, but the segregation of forest resources from mainstream strategies for state economic growth. Ideally, the LTAP should be preceded by a long-term policy perspective, within a consistent framework of overall developmental policy in the state and, within this, specifically for the forest-based economies. The LTAP does focus on the most poverty-stricken region, but the underlying framework remains the same, i.e., it echoes the usual approach of using sectoral plans devoid of an in-depth situation analysis. Thus, although the document contains the semantics of an area development plan, it fails to identify the right questions to be asked and the solutions to be sought through addressing the tricky issue of linking environment and the development of people's livelihoods in this forest-based region.

Researchers, civil society organisations (CSOs) and policymakers (often in their individual capacity) tend to come up with more comprehensive approaches for the betterment of the area. Such views get lost amid various activities and action plans, which often take priority over a sustained dialogue and search for long-term perspectives. To a large extent, this happens because of a misplaced sense of urgency, caused by frequent crises such as floods, drought and, of late, poverty. Of course, this is not to deny the importance of immediate action; rather, the point is to attach equal priority to generating a region-specific development perspective and to feed this into state-/national-level plans.

A disjointed view of development results in a 'lose-lose' scenario, whereby forests are not properly conserved, protected and managed (despite their significant contribution to the state's revenue), nor are livelihood options adequately explored (owing to a loss of potential revenue from forests, an important source of investment) in the rest of the economy.<sup>13</sup> The immediate and the worst sufferers are the forest dwellers, who have neither proper entitlement to manage forest resources, nor equitable share in the developmental opportunities emanating from forest conservation/management elsewhere. The situation is aggravated because the state, unable to link conservation and economic development in the context of a close interface between highland and lowland within the forest ecology, fails to provide compensation to forest dwellers against foregone livelihood opportunities. In fact, for the most part, opportunities are lost not because of conservation objectives; rather, the loss owes more to ineffective measures, resulting in limited realisation of conservation goals.

This scenario, juxtaposed against a long history of exploitation, apathy and lack of continuity on the part of various rulers, tends to reinforce the adverse impacts of non-connectivity or remoteness that have been faced by the people over the centuries. It is unfortunate that the current policy discourse on development and poverty reduction in the state has not made major strides towards establishing an organic link between forest economies and the rest of the economy. As a result, it is difficult to make any significant headway towards finding a long-term solution to the enduring poverty in the region.

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<sup>13</sup> Forest resources in Orissa constitute an important component of the non-tax revenue in the state. Of late, the revenue from forest produce has declined. The total revenue (at current prices) declined from Rs109 crores in 1990-91 to Rs84.2 crores in 2000-2001 (Mallik, 2002).



## 6. Summary and way forward

### 6.1 Main findings

The analysis in this paper indicates a spatial concentration of poverty among seven out of the 17 major Indian states, accounting for nearly 80% of the rural poor in India. Another important feature is that nine of the 15 regions were in the category of forest-based economies; two were in the dryland category and the remaining four were in the mixed category. The predominance of forest-based areas with a high concentration of poverty over a long period of time calls for detailed analysis of the extent and pattern of poverty and into policy support with regard to reducing poverty in these regions. These issues were addressed in this paper in terms of interregional variations in Orissa and a case study of Koraput district in the Southern region of the state, which has the dubious distinction of being the poorest (rural) region in the country.

This analysis of chronic poverty in one forest-based region in Southern Orissa demonstrates that chronic poverty, in terms of severity and long duration, is an overarching reality for almost nine out of 10 households. It also highlights severe deprivations with regard to food consumption. The analysis also brings out the following new insights:

- Despite common perceptions, people in the forest area have reasonably good access to forest resources, such as land and NTFP, and this is also highlighted as a need in contemporary policy discourse. However, the reality is that it is vital to match people's needs without compromising the sustainability of the forest resources.
- An overwhelmingly large proportion of people live in severe poverty, despite the fact that a subset of people has experienced improvements in living conditions with respect to food, clothing and housing. Improvements, at best, may have helped reduce the extent of severity, but not the duration of poverty.
- Physical remoteness at regional/district level emerges as the most important factor explaining the level of poverty in Koraput, which is significantly higher in comparison with forest-based districts in Northern Orissa. The impact is diluted when a comparison is made between a more remote village and a less remote village within the same district. Remoteness has a negative impact on literacy and access to health (and family planning) services and exacerbates expenditure poverty.
- The incidence of poverty among SCs is higher compared with STs. Nevertheless, incidence of poverty even among non-SC/ST households is as high as 75%. This suggests that, more than just social identity, regional characteristics have a great impact on poverty.
- Reducing cereal consumption is the most important coping strategy under conditions of internal shock. This leads to a downward spiral of low nutrition, leading to low mobility and physical capability. Physical remoteness and frequent drought make this a perpetual reality; exiting this situation is almost impossible for a large majority of the poor.

### 6.2 Future policy direction

The contemporary policy discourse emphasises the need to further enhance people's access to forest resources. Nevertheless, the real issue is one of matching people's needs without compromising the sustainability of the resource itself. This may call for linking up forest development with people's livelihoods, whereby access is treated as a matter of right, rather than as a concession granted to support the livelihoods of the poor.

The recent flux of policy initiatives regarding various schemes for employment generation and other development programmes in the 150 most backward districts of India is a testimony to the recognition

of sustained concentration of poverty in certain pockets of the country. While resource transfers through wage employment or other subsidies are crucial to making a dent in chronic poverty in such regions, long-term solutions lie in addressing structural problems, such as the failure of entitlements and the integration of forest management into the larger framework of development in a number of forest-based economies, like Southern Orissa.

The concept of 'compensation' is gradually gaining ground in the policy framework. At present, the discussion is centred around compensating states with a substantial forested area, by allocating a larger share of the federal budget to conserving forests, which are essentially national (if not global) resources. In some senses, special provisions under tribal area sub-plans also represent compensation to respective areas and their populations for being deprived of development opportunities. In both these approaches, the thrust is on providing opportunities for development that have been lost owing conservation objectives. As a result, the first development priority is to promote irrigation.

As we have seen, this approach to a certain extent dislocates the forests and the livelihoods of forest dwellers from the mainstream regional or state economy. We noted in Section 4 how abolishing shifting cultivation would meet strong resistance from the people, and how shifting cultivation is not necessarily mainly responsible for the current state of the forest. In fact, we noted that had this type of traditional cultivation been combined with an attempt to involve local communities in managing the forest, more sustainable resource management might have been achieved (Ramakrishnan 1992).

As such, attempts to integrate forest management and forest dwellers into the larger framework of development could focus on improving forest resources in forest regions, at the same time enhancing forest dwellers' access to opportunities in the areas downstream. The central thrust should be on recognising forest dwellers' stakes in both conservation measures within the region and development opportunities outside it.

This approach is different from the present policy thrust regarding the various forms of participatory forest management, especially joint forest management (JFM). The basic difference lies in the fact that JFM and other programmes for participatory management hinge mainly on enhancing people's access, and thereby use a part of the forest and its produce, in isolation of a coherent policy to enhance the status of the forest and the associated agro-ecological system, consisting of land use, irrigation and pastures. This kind of approach is disjointed and may not work, since productivity of NTFP essentially depends on how the rest of the eco-system is managed.

Moreover, there is a limit to how much livelihood support can be given without adversely affecting the long-term sustainability of the forest. Populations exceeding a reasonably defined carrying capacity need to be supported in a smooth transition with direct resource transfers or towards migratory paths.

Another important aspect is that increasing connectivity may have adverse impacts for conservation objectives in a forest-based region. As such, livelihood options might have to be tilted increasingly towards forest management rather than increased extraction of forest resources. In this context, recent experiences with respect to NTFP livelihood support may hold special relevance. A study by Padhi et al (2005) suggests that factors such as better opportunities for non-farm employment, especially mining activities, combined with a better wage rate and less constraining forest polices in the Northern region, seem to have led to relatively better outcomes with regard to poverty reduction as compared with the Southern region.

Unfortunately, the predicament in Orissa is that the state does not receive sufficient funds by way of compensation such as this, because the richness of the state's major resources (i.e. forests and minerals) lies in the very existence rather than in the extraction of the resources. Of course, sustaining the existence of this resource does generate a positive externality beyond the administrative/financial unit of the state. Unless the federal financial system helps the state sustain the resource, the state, even if it is benevolent, may not be able to invest in the management of forest resources, let alone in

addressing the livelihood issues of the people dependent on them. If the state is not so benevolent, the fate of both – the resource and the people – is likely to be in jeopardy.

What is worse is that the state does not have effective institutional mechanisms to ensure implementation of the legal system governing its natural resources. Rooted deeply in the web of socioeconomic, financial and legal structures, poverty in the state is most likely to be chronic in nature – severe, of long duration and multidimensional. Exiting from this requires a substantial shift in the mindset of policymakers, who often tend to isolate the very resource that is the foundation of the state's economy.


It is for both the state and the poor to capitalise on this resource as a strategic negotiating point, rather than keeping it away from the developmental discourse at national, regional and local levels. Evolving a coherence of approach and commitment at different levels requires appropriate political representation, especially from the people and the region (or resource area) whose survival is at stake. The current discourse on growth/development and poverty reduction does not seem to adequately recognise the critical importance of bringing the forest and the poor living in forest-based regions to the centre stage of development. Generating a better understanding of the dynamics of forests and development may thus facilitate a shift in the policy perspective for poverty reduction in the state.

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## Annex: Profile of sample villages

Indicators	Balel	Sindhiguda	Hanumal	Kamel
1. Total HHs	141	52	126	57
2. Total population	527	NA	457	226
3. Total area (sq. km)	643.05	NA	1073.61	323.77
4. % of SC population	19.0	NA	23.2	11.5
5. % of ST population	80.4	NA	74.8	40.7
6. Household size	3.7	NA	3.6	4.0
7. Sex ratio (female/male)	0.99	NA	1.14	1.05
8. % of workers				
a) Male	55.5	NA	60.1	60.9
b) Female	57.2	NA	27.9	65.5
9. Nearest market place/distance	Walk to Lamptaput: 10–12km	Walk to Lamptaput: 10–12km	Walk to Onkadeli: 4–5km	Lamptaput: 6km
10. School facility	Yes (primary)	No	Yes (primary)	Yes (primary)
11. Health facility	Integrated child development support (ICDS) and village health workers in Lamptaput (both services irregular)	ICDS services at Lamptaput/Khairput	ICDS service at Lamptaput plus village health extension services by NGO (Ashakiran)	ICDS and village health workers at Lamptaput
12. Drinking water	Handpump/tubewell/river/nala	Deep tubewell	River/nala/shallow/open water/tubewell	Deep tubewell
13. Electricity	No	No	No	No
14. Transport	No transportation facility. Private four-wheeler comes to the village occasionally. 3–4km to catch bus	No transportation facility. Go to Khairput to catch bus or to Lamptaput	No transportation facility. Go to to Onkadeu to catch bus	Yes 0.5km
15. Distance from road (state highway/other district roads)	5km	14–15km	10km	0.5km
16. Distance from Lamptaput	15–17km	65km	41km	5km
17. Panchayat	Yes	Yes	Yes	Yes
18. Wage rate (Rs/day)				
a) Male	40	30–40	40	35–40
b) Female	30–35	25–35	30	30–35



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