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**Poverty and Livelihood among
Tribals in Gujarat:
Status, Opportunities, and Strategies**

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*Gujarat
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Development
Research*

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**Gujarat Institute of Development Research
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Abstract

Tribal communities, constituting about 15 per cent of Gujarat state's population, bears disproportionately high burden of poverty and multiple deprivation. The growing disparity between tribal and non-tribal population in the state however, does not imply that tribals in the state are worse-off than those in other states in the country. The growing inequality along with wide spread deprivation calls for detailed probing into the extent, pattern, and correlates of poverty among these communities in the state. In fact, the problems faced by the tribal population, concentrated mainly in 43 talukas, have received increasing attention in the policies of the Government of Gujarat. However, it is imperative that regeneration of forest resources and tribal's rightful access to these resources continue to play important role in the strategies for supporting livelihood of these communities in the state. This paper tries to look into the status of poverty and multiple deprivations among tribal communities in the state and explores policy options for strengthening their livelihoods through a combination of forest and non-forest based interventions.

The estimates suggest that monthly per capita expenditure on food items among poor-tribal is less than half compared to non-poor tribals in Gujarat. Also, the expenditure on health and education is significantly lower (Rs. 9.29) among poor as compared to non-poor (Rs.23.62) within the tribal communities. The study identified that shortage of food in tribal households is severe in 43 tribal dominated districts compared to non-tribes. Also tribal households as casual labourers have 36 percent higher poverty score than those with subsistence cultivation. Distress migration from tribal areas is a known phenomenon in the state and it is observed that almost half of the tribal households (47.9 per cent) having migrants either as casual labourers or seasonal workers as against one quarter of non migrant (25.86 per cent) households among the 43 tribal dominated talukas in the state. The results also pointed out that presence of forest villages has a significant positive correlation with proportion of vulnerable households in the talukas. This reinstated the importance of forest based livelihood options and communities' entitlement to the resources in mitigating poverty among tribals in the state.

Keywords : Poverty, tribals, forest, livelihoods, Gujarat

JEL Classification : I32, J15, Q23, Q15

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Abbreviations used

BPL	Below Poverty Line
CBO	Community Based Organisation
HCR	Head Count Ratio
HPI	Human Poverty Index
JFM	Joint Forest Management
NSSO	National Sample Survey Organisation
NTFP	Non Timber Forest Produce
SHG	Self-Help Group
SSI	Small Scale Industries
URP	Unique Reference Period
WPR	Work Participation Rate

Poverty and Livelihood among Tribals in Gujarat: Status, Opportunities, and Strategies

Amita Shah[§]

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1. Emerging Perspectives on Tribal Development

Tribal communities, constituting about 15 per cent of the state's population, bear disproportionately high burden of poverty and multiple deprivation. While the phenomenon of higher incidence of poverty among tribal as compared to non-tribal population is common to almost all the states in the country, tribal communities in Gujarat suffer a relatively higher degree of discrimination in terms of gap in the incidence of poverty among the two sets of communities¹. To a large extent, this reflects the growing inequality especially in the wake of the high economic growth experienced in the state since the mid-nineties. This aspect has been substantiated by the fact that the disparity in poverty between tribal and non-tribal population increased during the later half of the nineties.

The growing disparity between tribal and non-tribal population in the state however, does not imply that tribals in Gujarat are worse-off than those in other states in the country. Quite contrary, the poverty ratio among tribals in Gujarat is fairly lower as compared to that at the All India level. By 1999-00 incidence of poverty, measured in terms of head count ratio (HCR) for tribals in Gujarat was 29.1 per cent as compared to 45.9 per cent at the All India level. The issue therefore, is more of relative poverty and growing disparity, rather than merely of high incidence of poverty among tribals *per se*. According to the latest estimates for 2004-05, incidence of rural poverty (HCR) in the state was 18.9 per cent. Against this, the HCR among tribal population in the state was 34.3 per cent. It is imperative that the high growth scenario entails these marginalized communities, spread mainly over the eastern region in the state.

Historically a number of factors have been associated with the sustained high level of poverty among tribals, notwithstanding the slow improvements in the status of poverty over time. These include socio-cultural, physical, and political marginalisation faced by the tribals as compared to other backward communities. Ironically, tribal communities continue to remain a minority even in the tribal designated areas². One of the important factors, often overlooked in

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¹ According Thorat and Mahamallik (2006), the disparity in the poverty ratios among tribal and non-tribal communities was higher in Gujarat as compared to the All India level.

the discourse of poverty among tribal communities, is the failure of entitlement of forest resources on which a large proportion of the tribal communities depend for their livelihood during the stress period³.

This is particularly true of the communities living in Forest Villages, which by and large, remain bypassed by the various interventions for development. To a large extent, marginalisation of tribal communities is rooted in the fact that they depend on forests for livelihoods and the forest resources perform a very vital ecological role, essential for growth and sustenance of human activities. Conservation thus, becomes supreme concern while managing forest resources; people's livelihood becomes subservient to this basic societal objective. It may be reiterated that the dual objectives of conservation and people's livelihood are not necessarily conflicting.

A related issue to entitlement and conservation leading to poverty among tribal communities pertain to displacement and inadequate compensation as well as rehabilitation of the displaced; a majority being tribals. While there is no systematic assessment of 'development-induced' displacement in the state, isolated estimates suggest that a large proportion of displacement in the state has taken place due to irrigation, mining and infrastructure projects. Tribal communities constitute a large proportion of the displaced due to irrigation.

Much of the discourse on the interface between forest conservation and people's livelihood suggest that the two may work in a mutually reinforcing manner provided the rights and responsibilities of the people are appropriately defined and that there are institutions in place⁴. Inability to create synergy between the two objectives may invariably lead to faster degradation of forest resources, notwithstanding the increasing efforts for stringent enforcement of the restrictions for using forest resources for livelihood needs.

² Reflecting on the better status of tribal communities among the North-Eastern States, Radhakrishna and Ray (2005) note that 'Perhaps it is their dominant status and political power that they have enjoyed over long years, that ensured their escape from poverty beyond simple income measures' [p.59].

³ According to an estimate 275 million people in India depend on forest for at least a part of their livelihood. Forest dwellers, which constitute a large proportion of tribals, are among the poorest and the most vulnerable groups in the society. Forests offer vast potential for poverty reduction and economic growth in rural areas along with fulfilling the national goal of resource conservation. About 89 million tribal people live in the forest fringe areas, and they have close cultural as well as economic link with forest [The World Bank, 2006; xiii-xiv].

⁴ The conventional perspective in India is to view forest-poverty relationship being one of negative type. Only recently the positive role of forestry in poverty alleviation has been recognized. However, there is still inadequate attention being paid to the issue of how the communities would continue to gain from forest protection in the long run [Kumar, et. al; 2000; p. 46].

Absence of proper entitlement to forest resources leads to yet another critical gap in the contemporary perspective on poverty and livelihood among tribal communities. This refers to lack of compensatory mechanisms by which forest dependent tribal communities ought to be supported for the lost opportunities in enhancing their livelihood options. It may be noted that abstaining from input-intensive agriculture may also form a part of the lost opportunity since it may go against the overall objective of conserving and strengthening the forest ecology⁵.

Together the two critical gaps in the perspective on tribal poverty and livelihood have led to scenario where pushing the forest dependent/tribal communities out of forest-based economies is considered as an effective way out from the vicious circle of 'people's dependence on forest-degradation-poverty'. Workforce diversification thus becomes the central thrust for redress in poverty among tribal communities, as is the case for most of the rural poor in the country. While the overall merit of workforce diversification could hardly be over emphasized, the experience so far is not encouraging. One of the major reasons for a slower progression towards workforce diversification is the stunted growth of the primary sector-degradation of forest forms a part of the structural constraint for creating a vibrant non-farm sector in the rural economy, especially in tribal dominated areas.

Another important exit root could be through migration and urbanization where skill formation may operate as an important starting point. Again, skill formation though an essential correction to be introduced as part of the basic education across all communities and regions, this by itself may not work as sure shot for getting employment outside the rural economy. The constraints here are mostly socio-cultural discrimination, besides the increasing competition for limited work opportunities and the costs involved in out-migration.

The contemporary perspective on poverty and livelihood of tribal communities thus is saddled between processes of marginalisation (lack of entitlement to forest resources) on the one hand, and mainstreaming (into the non-farm urban economy) on the other. The former implies exclusion and the latter may connote adverse incorporation. Obviously the need is to adopt a multi-pronged approach by carefully calibrating opportunities and constraints in various livelihood options both-forest based and other. How to go from here? There cannot be a single option to choose; the road map would consist of multiple options to be simultaneously explored for enhancing livelihood base among the tribal communities in Gujarat. What is essential however is to recognize that: (a) the livelihood options have to be in consonance with sustainable management of forests and other natural resources in the region; and (b) the process of mainstreaming of the growing tribal workforce should critically work towards breaking the

⁵ The lost opportunities, to a large extent, are a result of the conservation objectives, which creates social good for a large section of the society, beyond the forest regions and tribal communities within that.

initial disadvantages-socio-cultural-political-spatial- faced by most of the tribal communities in the state, which invariably calls for recognizing their rights and entitlements (See Shah *et al.*, 2006).

In this context, the area-based approach for development of tribal communities, deserve special attention. The approach, as envisaged, has to address the needs of the context specific situations, much of which are influenced by the forests and the economy-based their resources. Given this perspective, the options of mainstreaming tribal communities and their economies through workforce diversification and marketisation may need carefully worked out strategies for steering a transition without damaging the core characteristics of the area or resources and the people dependent on that. This would imply that the strategy for Tribal Area Development ought to stand out from the developmental strategies adopted for the rest of the areas/communities in the state.

It may be argued that compensation rather than mainstreaming should take larger space within the future perspectives on tribal development. The Tribals Land Rights Act and similar other rights based approaches may help evolving a new perspective for development of tribal areas and livelihood of the tribal communities in the state.

Promotion of livelihood is a cross cutting rather than a sectoral theme. Appropriate macro policies, well-integrated sectoral interventions; and appropriate institutional support-all these are essential elements for promoting livelihood among marginalized areas and communities. The 10-Point Programme for Tribal Development in Gujarat captures elements of the different strands of livelihood promotion, *viz*: employment promotion and skill formation through cluster approach; value-addition to local natural products; creation of additional irrigation; and development of physical infrastructure including urban centers within tribal talukas in the state (See Box 1).

While the above list of selective interventions for promoting livelihood represents a fairly broad-based approach, it is imperative that these various elements of livelihood promotion, which cuts across at least five out of the ten programmes, are systematically planned, sequentialised and integrated such that it creates a momentum of growth on a sustained basis.

Given this backdrop, this paper examines the status, opportunities and strategies for livelihood enhancement among tribal communities in Gujarat. The paper is divided into five sections. The next section presents a brief account of the status of poverty and multiple deprivations among tribal communities in the state and discusses the correlates of deprivation. Section 3 examines the scope for promoting forest-based opportunities, followed by discussion on potential and constraints for promoting other livelihood options in tribal areas. Section 5 presents summary of the major findings and policy recommendations.

Box 1: Main Features of Livelihood Promotion in the 10-Point Programme

No.	Details of the 10-Point programme	Important Interventions for Livelihood Promotion (Selected)
1	Employment Opportunities for 5 Lakh Families	Productivity Enhancement in Agriculture; Animal Husbandry and Dairy; Skill Training; Special Emphasis on Women Headed Households
2	Economic Development	Cluster based Approach for Promoting Selected Economic Activity at Taluka Level; Value Addition to the Local Natural Resources
3	Irrigation	Group Irrigation; Watershed Development; Financial Support for Equipments
4	Infrastructure	Universal Electrification; Road Connectivity
5	Urbanisation	13 Tribal Towns as Growth Engines

2. Poverty and Multiple Deprivations among Tribal Communities in Gujarat

2.1. Incidence of Poverty (HCR)

Sustained high level of poverty among tribal communities, despite the faster economic growth, has posed the most difficult challenge to contemporary discourse on development in the state. The incidence of poverty among tribal communities is both-severe as well as multi-dimensional in nature. This section highlights some important features of poverty among tribal communities, particularly among the 43 designated tribal talukas in the state.

A quick glance at the official poverty estimates in Gujarat indicates that the state has made a major stride towards poverty reduction from about 31 per cent during 1983 to 17 per cent during 2004-05 (Table 1).

Table 1: Poverty in Rural Gujarat (head Count Ratio-HCR)

Poverty	1983	1993-94	2004-05*	2004-05**
Rural	27.9	22.4	18.9	19.1
Urban	38.0	29.4	13.3	13.0
Gujarat State	31.1	24.9	17.0	16.8

Note: *Estimates are based on 61st round of the NSS household Data using Unique Reference Period (URP). The data do not include the state sample.

** Figures are official estimates based on (URP), released by the Planning Commission [Govt. of India, 2007].

Source: Based on Table 8 in Dev and Ravi, 2007.

However, the tribal communities, as noted earlier, have been largely bypassed in the process of poverty reduction. Table 2 presents the comparative estimates of rural poverty among

tribal and all population in the state. As per the latest official estimates, slightly more than one third of the tribal population (34.3%) in rural Gujarat is poor. What is more concerning is that the incidence of poverty among tribal population has increased as compared to the early nineties. This is happened at a time when overall rural poverty in the state had declined from about 22 to 19 per cent.

Table 2: Poverty among Tribal Communities in Rural Gujarat: A Comparison

Year	HCR-Tribal	HCR-All
1983	57.6	29.8
1993-94	31.1	22.2
1999-00	29.1	13.2
2004-05	34.3	18.9

Note: The estimates for 1999-00 are not strictly comparable because of the difference in reference period.

Source: Thorat and Mahamallik (2006); For 2004-05 as per Table 1.

A similar picture is obtained while comparing the poverty estimates across regions in the state (Table 3). It is observed that whereas poverty has declined in three out of the five regions, eastern region, consisting mainly of the tribal areas, along with dry region has experienced a marginal increase in the incidence of poverty.

Table 3: Poverty Ratios by NSSO-Regions

NSSO-Regions	HCR (1993-94)	HCR (2004-05)
Plains Northern	24.6	21.6
Plains Southern	22.4	17.9
Dry Areas	23.3	25.0
Saurashtra	18.8	02.7
Eastern	25.0	26.1
Gujarat state	22.8	18.9

Note: Based on Table 4 in Shah and Yagnik (2007).

According to the latest estimates tribal communities have suffered further since 1993-94, the period coinciding with economic reforms and faster growth.

2.2. Consumption Expenditure

The estimates of consumption expenditure among tribal population in the state suggests that the difference in consumption/expenditure on the basic items like food grains, milk, edible oil, fuel, and education is found to be significantly lower among tribals as compared to All population in the state. The expenditure among the poor within tribals is substantially lower as compared

to the poor among other communities (i.e. non STs and Non-SCs) in the case of most of the commodities. The major exception however, is in the case of quantum of cereals and cereal substitutes, which assume critical importance in the food intake of the poor. In a way this also indicates lower level of diversification of food intake among tribal as compared to other poor in the state. What is noteworthy is that the difference in the consumption/expenditure between poor and non-poor within the tribal communities is also fairly large. For instance monthly per capita expenditure on food items among poor-tribal is about Rs. 148.7 as compared to Rs. 317.0 among non-poor tribal population. The expenditure on health and education however is significantly lower (Rs. 9.29) among poor as compared to non-poor (Rs.23.62) within the tribal communities. Identifying the poor thus become very important.

Table 4: Monthly Per capita Expenditure among Tribals in Rural Gujarat: 2004-05

Expenditure details	Per-capita expenditure among Tribals							
	Poorest 10 percent	Rest of the poor among Tribals	Tribal poor	Tribal non-poor	All Tribal	Non SC/ST Poor	NON SC/ST Non-Poor	All persons
1. Per-capita total consumption expenditure (Rs.)	126.5	238.5	228.3	538.3	483.6	262.0	569.7	596.1
2. Per-capita total expenditure on food (Rs.)	95.5	154.1	148.7	317.0	287.3	177.0	340.3	345.5
3. Per-capita consumption of cereals and cereal substitutes (Kg.)	6.8	10.1	9.8	11.4	11.1	6.8	9.9	10.1
4. Per-capita consumption of milk and milk products (Kg.)	1.3	1.3	1.3	2.9	2.7	3.3	6.1	5.7
5. Per-capita expenditure of milk and milk products (Rs.)	13.3	17.0	17.0	43.7	40.6	39.3	85.3	82.1
6. Per-capita consumption of oil and oil seeds (Kg.)	0.3	0.3	0.3	0.7	0.7	0.5	0.8	0.8
7. Per-capita expenditure on oil and oil seeds (Rs.)	17.5	17.9	17.8	38.0	34.6	24.0	44.4	44.0
8. Per-capita expenditure on fuel and light (Rs.)	18.6	27.8	27.0	58.7	53.2	30.8	59.3	63.1
9. Per-capita expenditure on education and health (Rs.)	5.9	9.6	9.3	23.6	20.7	9.1	28.0	31.3

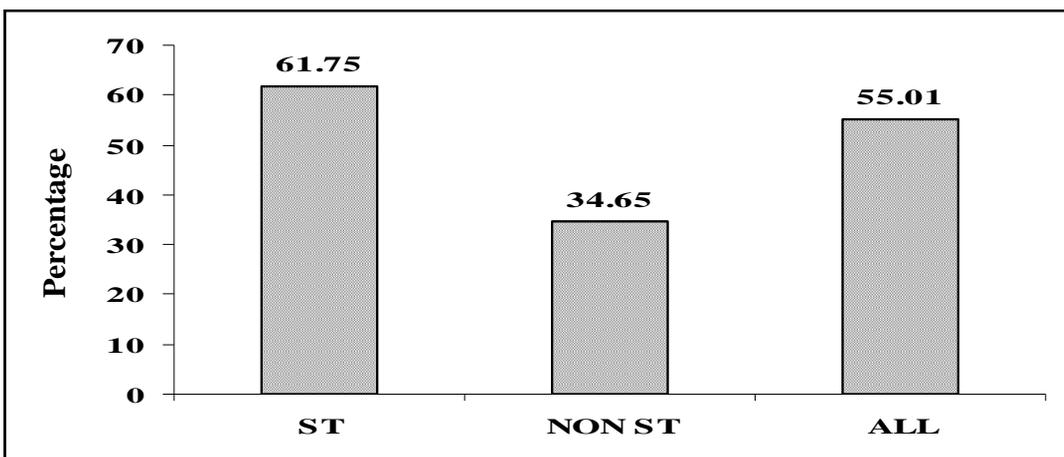
Notes: The figures are calculated from the unit record data for rural Gujarat from 61st consumption expenditure of NSSO for 2005-06. All poor refers to those whose monthly per-capita consumption expenditure is below Rs. 353.93. The term refers to poorest 10 percent as well as rest of poor. Poorest 10 percent in this case are those whose monthly per capita consumption expenditure is below Rs. 227.81. Figures in the table refers to consumption expenditure of rural Tribal of Gujarat only, though the income limits to define poor and poorest 10 percent are applicable to all the population in rural Gujarat.

2.3. Multiple Deprivations: Identifying the Households

A detailed analysis by Thorat and Mahamallik (2006a) presents a comparative picture of Human Poverty Index (HPI) among tribal, non-tribal and all population in Gujarat. According to the estimates, HPI among tribal population was 0.311 as compared to 0.406 among all communities in the state. Tribals were found to be fairly worse off in comparison to Scheduled Castes (SCs) for whom the HPI was 0.371. It is however, observed that tribal in Gujarat are relatively better placed in comparison to tribals in other states with significantly high incidence of poverty. This could be due to the positive impact of several factors viz; higher economic growth, opportunities for migration within the state, better transport and other facilities, and above all, levels of education . to a large extent this could be attributed to the overall development experienced by most of the people in the estate and also to the special role that some of the Gandhian organisations had played in promoting basic education among tribal children. This is in addition to the work undertaken by Christian missionary organisations-a phenomenon which is common across many tribal dominated areas. Notwithstanding the relatively better scenarios among tribals in Gujarat as compared to the other poor states in the country, the issue of relative poverty within the state assumes special significance from the view point of processes of marginalization.

We tried to examine the extent of multiple deprivations by using the information on the 13 indicators, used for identifying households below poverty line (BPL) in the Socio-Economic Survey 2002-03. The proportion of households, deemed as vulnerable, is worked out by using a cut-off of 20 for the aggregate score of the 13 indicators, each taking a value 0-4. A comparative picture of the proportion of the vulnerable households has been presented in Figure 1. The estimates are limited to the population (rural) in 43 tribal Talukas in Gujarat.

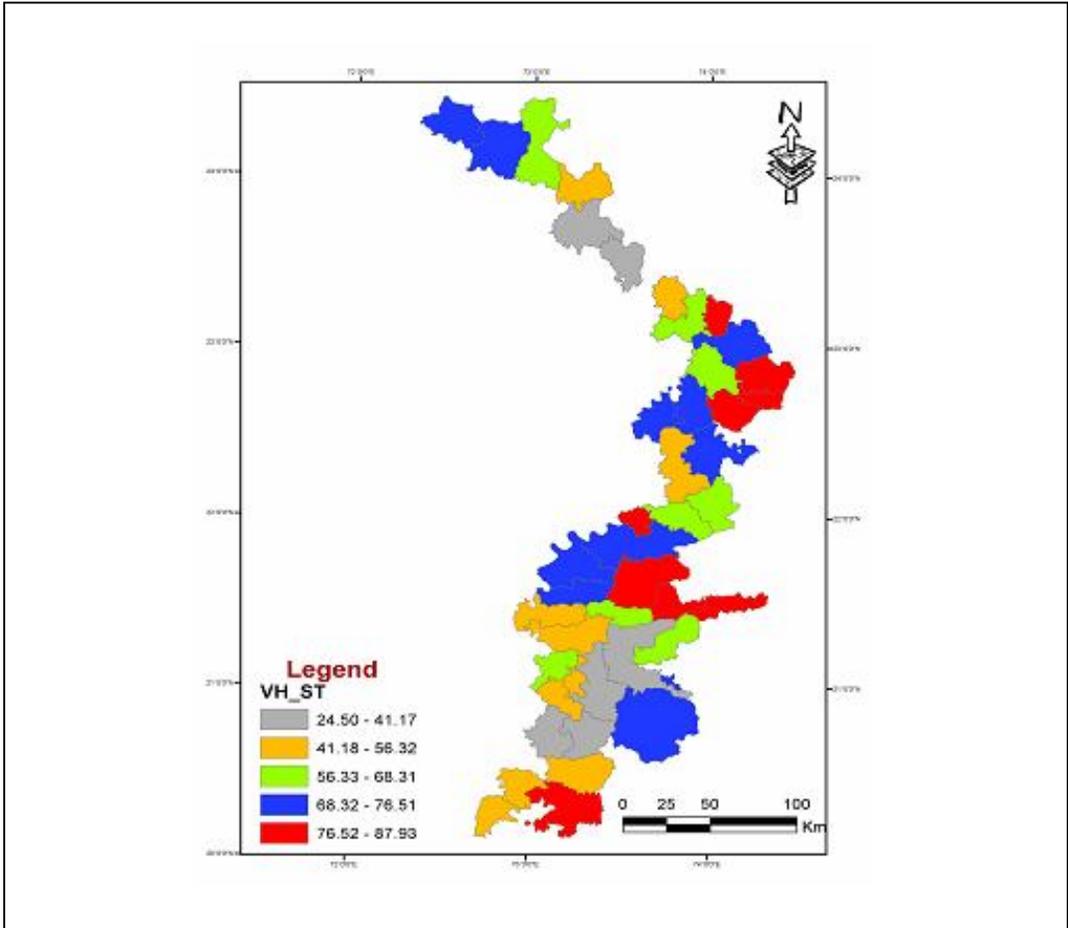
Figure 1: Percentage of Vulnerable Households (Score 0-20) in 43 Tribal Talukas for Scheduled Tribes and Others, Gujarat 2002-03



Source: Calculated from Socio-Economic Survey, 2002-03, Department of Rural Development, Government of Gujarat.

It is observed that the proportion of vulnerable households among STs is as high as about 62 per cent as compared to about 35 per cent among non-STs in these talukas [Map 1]. An earlier analysis indicated that the proportion of vulnerable households among all communities in the rural talukas in Gujarat was 34.2 per cent (Shah and Yagnik, 2007) as compared to 55 per cent within the 43 tribal talukas in the state.

Map 1: Proportion of Vulnerable Households among STs in Tribal talukas



Source: Calculated from Socio-Economic Survey, 2002-03, Department of Rural Development, Government of Gujarat.

The proportion of the vulnerable households varies significantly across the tribal talukas; the highest proportion among STs was found in Kaparda and Dhanpur both having more than 85 per cent of the households in this category. Table 5 presents distribution of the tribal talukas by the extent of vulnerable households among tribal communities.

Table 5: Distribution of Tribal Talukas by Percentage of Vulnerable Households, 2002-03

Percentage	ST	NON-ST	ALL
<=40	11.63 (5)	55.81 (24)	20.93 (9)
41-60	27.91 (12)	34.88 (15)	37.21(16)
61-80	53.49 (23)	9.30 (4)	37.21(16)
81+	6.98 (3)	0.00 (0)	4.65 (2)
All	100 (43)	100 (43)	100 (43)

Source: Calculated from Socio-Economic Survey, 2002-03, Department of Rural Development, Govt. of Gujarat.

It is observed that almost 60 per cent of the talukas have more than 60 per cent of tribal households in the vulnerable category, whereas the proportion is only 9 per cent among non-ST category. In fact there is not a single taluka where the proportion of vulnerable households among non-STs is higher than 81 per cent (See Appendix 1). Box 2 shows the top 10 talukas in terms of vulnerability.

Box 2: Top Ten Talukas in terms of Vulnerability

Dhanpura	Karpada
Fatepura	Sagbara
Tilakwada	Dahod
Garbada	Dediapada
Nadod	Nizar

The evidence thus suggests large disparity between the ST and non-ST households among the tribal talukas. We have tried to examine multiple deprivations by looking at selected variables such as ownership of land, migration, child labour etc. by comparing tribal with non-tribe and all households in these Talukas. The results in Tables 6 and 7 highlight significant bearing these variables have on the vulnerability among tribal as compared to non-tribal households.

Table 6: Comparison of Tribal households with Non Tribals and All by Household Characteristics in 43 Tribal Dominated Talukas, Gujarat 2002-03

Characteristics	Percentage of Households		
	ST	NST	ALL
1. Food Security			
< 1 meal/day in major part of year	5.86	2.94	5.13
1 m/day but < 1 occasionally	9.37	5.92	8.51
1 m/day through out year	6.19	4.98	5.89
2 m/day with occasional shortage	52.42	38.55	48.97
Enough food for year	26.16	47.62	31.50
2. Land Type			
Landless	30.98	36.75	32.41
< 1 h non irrigated. 0.5 h irrigated	57.65	46.19	54.80
1-2 h non irrigated. 0.5-1 h irrigated	8.65	10.23	9.04
>2.5 h non irrigated > 1h irrigated	2.72	6.83	3.74
3. House hold Labour Force			
Female & Child labour	7.06	4.92	6.53
Adult female & no child labour	6.28	5.04	5.97
Adult male labour	65.08	66.94	65.54
Others	15.89	19.80	16.86
4. Children Status			
Not going school & working	13.52	7.63	12.05
School going & working	9.15	7.60	8.76
5. Reason for Migration			
Casual Work	32.69	16.39	28.63
Seasonal Employment	15.21	9.48	13.78
Other forms of livelihood	2.93	4.03	3.20
6. Land Holding			
Own	64.26	56.75	62.39
Ganotiya (share cropper)	6.83	7.41	6.97
Own & Ganotiya	2.42	2.21	2.37
Others	26.49	33.64	28.26
Total	764085	142014	906099

Source: Calculated from Socio-Economic Survey, 2002-03, Department of Rural Development, Govt. of Gujarat.

Shortage of food in tribal households is severe in 43 tribal dominated districts compared to non-tribes. Almost half of the non tribal (47.62 per cent) get enough food for the year whereas a little higher than one quarter (26.16 per cent) were getting enough food among tribes. If we consider one meal or less than that per day as an indicator of sever food insecurity, one fifth of the total households (19.54 per cent) in this area are vulnerable to that. Even though the food insecurity is high among tribes in this area, landless population is less compared to non-tribes (31 and 37 percents for tribes and non tribes respectively). However, more than half of

the tribal households (57.65 per cent) have very small landholding i.e. less than 1 hectare of non-irrigated or up to half a hectare irrigated land. Almost equal percentages of households in tribal and non tribal communities were in the categories of ‘Ganotiya’ alone or ‘own and Ganotiya’.

Distress migration from tribal areas is a common feature in Gujarat. Almost half of the tribal households (47.9 per cent) reported having migrants either as casual labourers or seasonal workers as against one quarter of non migrant (25.86 per cent) households among the 43 tribal dominated talukas in the state.

The frequency distribution of 43 tribal dominated talukas on the basis of proportionate vulnerable households based on selected household characteristics is given as Appendix II. In the case of tribal landless households, all the 43 tribal talukas have more than fifty percentage vulnerable households. The number of talukas with a vulnerability score above 76 percent among households with own land is only 5 in the case of tribals. Where as 19 talukas fell under less than half and remaining 19 with a score of 50 to 75. It is noted that in three talukas, more than half of the tribal households are under vulnerability score even though they are getting enough food for year.

Table 7 compares significance of differences in percentage of vulnerable households across the specific characteristic of the selected variables.

Table 7: Paired Difference in percentage below vulnerability score (<21) by selected variables among Scheduled Tribe households in 43 Talukas

Pair (A1 and B2)*	Paired Differences			T stat	Sig
	Mean	Std. Deviation	Std. Error Mean		
Size of Land Holding	23.20	12.61	1.92	12.06	0.00
Schooling and Work Status among Children	4.95	6.80	1.03	4.78	0.00
Reason for Migration	18.65	10.69	1.63	11.44	0.00
Type of Land Ownership	-13.52	12.91	1.96	-6.87	0.00
Main Source of Livelihood	35.86	13.27	2.02	17.72	0.00
Household labour (D4 and E5)	17.50	7.77	1.18	14.77	0.00

Notes: Land type: A1: Landless, B2: < 1 h non irrigated. 0.5 h irrigated; Children Status: A1: Not going school & working B2: School going & working; Reason for Migration: A1: Casual Work B2: Seasonal Employment; Land Holding : A1: Own B1: Ganotiya; Livelihood: A1: Casual Labour B2: Subsistence cultivation; Household Labour Force: D4: Adult male labour; E5: Others except Bonded Labour, Female & Child labour, Adult female & no child labour and Adult male labour.

* The classification as A1, B1, D4 and E5 are in consistence with the classification of Survey otherwise to be read as Pair 1 and Pair 2

Source: Calculated from Socio-Economic Survey, 2002-03. Department of Rural Development, Govt. of Gujarat.

The main findings emerging from Table 7 may be summarised as follows. First, across the scheduled tribal households in 43 talukas, the percentage below poverty score is 23 per cent higher among Landless (A1) than the next category of land holding size (B2). Second, tribal households as casual labourers have 36 percent higher poverty score than those with subsistence cultivation. Third, the mean difference in poverty incidence between selected household characteristics across the talukas found significant in all the cases. Fourth, the standard deviation shows that the poverty incidence among scheduled tribes in the talukas was more variable with livelihood and land holding.

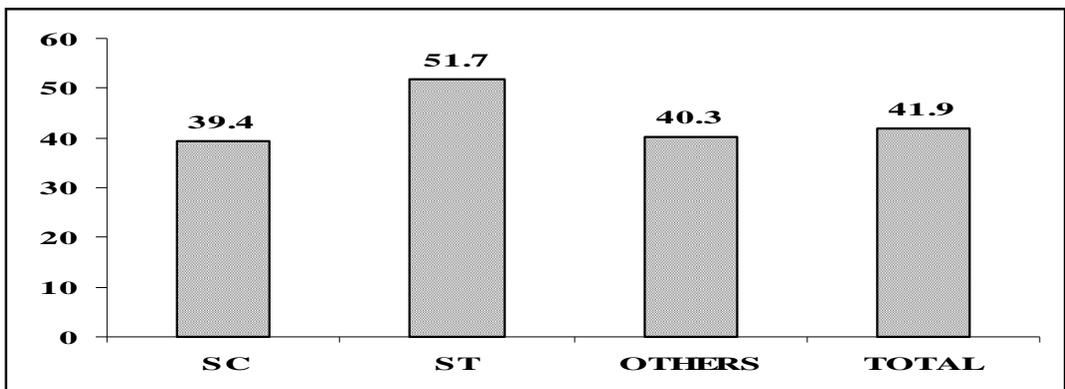
2.4. Employment and Occupation

Another important feature of tribal households is relatively higher work participation rate (WPR) as compared to other communities (Figure 2).

The WPR among tribal population is 51.7 per cent as compared to between 39 to 42 per cent among other communities including SCs. This could be treated as yet another manifestation of higher level of poverty and deprivation, where people are pushed into work due to poverty rather than access to appropriate economic opportunities.

In fact, a relatively larger proportion of the workers among tribals are likely to be children as compared to non-tribal communities in the state. Table 8 indicates that nearly 15 per cent of the children (10 to 14 years) are in the work force. Among those in the next age group (15-19 years), about 31 per cent continue to pursue studies, whereas the remaining 69 per cent stop studying further. What is noteworthy is that of the 69 per cent non-studying persons, 17 per cent do not work. This constitutes a critical segment of youth, who are neither in studies nor in work.

Figure 2: Work Participation Rate in Gujarat-A comparison



Source: Census of India, 2001

Apart from being driven by poverty conditions, relatively higher WPR among tribal households and child labour within that could also be due to: (a) snags in both supply and demand for schooling; and (b) part time nature of activities like collection of forest produce or grazing of

livestock, which is mainstay of many of the children otherwise not able to attend the school. It may however, be noted that higher WPR among tribal communities could be a combined outcome of both cultural factors with larger presence of women workers and economic factors like poverty and low productive activities in forest and livestock economies.

Table 8: Percentage distribution of tribal children and adolescents by work, Gujarat 2001

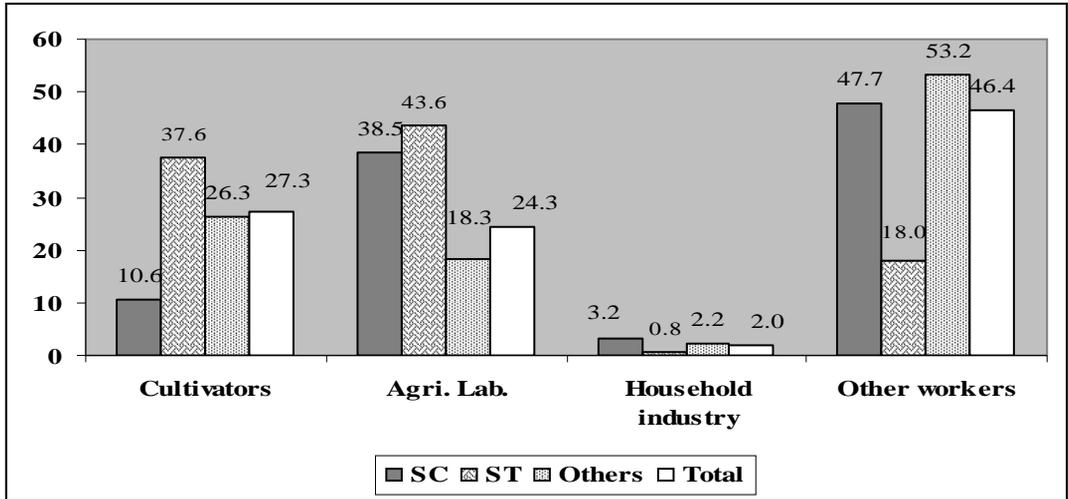
Age group/ school attendance	Main Workers	Marginal Workers	Non Workers	Total
1. 5-9 years				
a) Attending School	20.83	26.21	52.34	51.91
b) Not Attending School	79.17	73.79	47.66	48.09
c) All*	100(0.48)	100(1.03)	100(98.09)	100(100)
2. 10-14 years				
a) Attending School	5.05	12.86	71.47	62.32
b) Not Attending School	94.95	87.14	28.53	37.68
c) All*	100(5.74)	100(9.10)	100(85.16)	100(100)
3. 15-19 years				
a) Attending School	1.96	5.84	62.54	31.03
b) Not Attending School	98.04	94.16	37.46	68.96
c) All*	100(29.08)	100(24.49)	100(46.42)	100(100)

Note: * Numbers in brackets show row-wise percentages

Source: Census of India, 2001

We do not intend to get into further details on these issues, which would be dwelling upon in the separate Chapter on work and employment in this report. Nevertheless, it would be useful to highlight the fact that tribal workers are particularly more concentrated in agriculture related work as rather than in household industry or in other non-agriculture work (See Figure 3). Further it may be noted that the proportion of workers engaged in casual employment is 20 per cent higher among tribal as compared to the non-tribal population. Conversely proportion of workers engaged as 'other workers' among non-tribal groups is significantly higher (say, by the same factor of 20 %) as compared to the tribal –workers.

Figure 3: Workforce Diversification among Social Groups: Gujarat, 2001

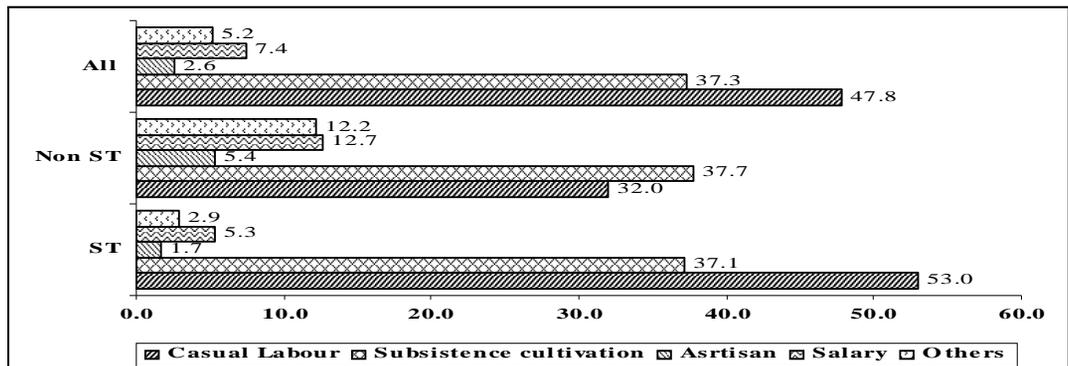


Source: Census of India, 2001.

And in the 43 tribal talukas, the percentage of population working as casual labourers is 20 percent higher among tribes than non tribes. This much percentage among non tribes were either drawing regular salaries or working other than as casual labourers or subsistence cultivators (Appendix III). And this can be one reason for higher incidence of deprivation among tribes in these areas.

A similar pattern is observed among tribal and non-tribal communities within the 43 tribal-talukas in the state. Figure 3 indicates that not only tribal communities have significantly higher proportion of workers engaged as casual workers and in subsistence agriculture as compared to their counterparts, the community has much smaller proportion of workers in the categories of artisans and salaried persons.

Figure 4: Comparison of percentage distribution of tribal households and others by occupation in 43 tribal talukas, Gujarat 2002-03



Source: Calculated from Socio-Economic Survey, 2002-03, Department of Rural Development, Government of Gujarat.

2.5. Correlates of Poverty

A recent analysis by Thorat and Mahamallik (2006) of factors influencing poverty across states in India revealed that:

‘Given the overwhelming dependence of the tribal on the rural economy, (particularly agriculture and allied sectors), higher rural employment (or lower unemployment) along with agriculture wage rates are important factors in reducing poverty. In addition to these factors, increasing urbanisation, employment diversification (particularly in favour of salaried employment), non-agriculture wages and education have become significant as far as rural poverty alleviation is concerned. However, these positive processes are not sufficiently strong to reduce the overwhelming dependence of the tribal community on agriculture (and allied) sectors in rural areas’ [p.49].

Following these we tried to examine correlates of vulnerability among households in the 43 tribal talukas in Gujarat. The results of the correlation exercise in Table 9 suggest three important findings:

- i) Employment in small-scale industries and literacy are the two significant variables having negative association -with proportion of vulnerable households among tribal, non-tribal and all communities.
- ii) Strangely, proportion of forest area has significant positive correlation with vulnerability among non-ST population within the tribal areas. A plausible explanation for this phenomenon could be that tribals in the areas with higher proportion of forest land may have been given land for cultivation whereas the non-tribals may not have got such land through settlements. In that sense, the non-tribals may turn out to be more dependent on forest resources as compared to the tribals for subsistence living. It may however, be noted that proportion of vulnerable households among STs and non-STs within these talukas are positively correlated. Alternatively, we tried to use a proxy variable viz; number of households per forest village within a taluka for capturing the link between forest economy and tribal poverty. The results suggest that presence of forest villages has significant positive correlation with proportion of vulnerable households-tribal and non-tribal combined-in the taluka. In this sense, forest dependence does figure in understanding vulnerability among households in tribal talukas in the state⁶.
- iii) Concentration of tribal population is significantly related with literacy (-); sex ratio (+); and WPR (+). Migration, reflected by higher sex ratio, thus emerges as an important feature of tribal communities among these talukas.

⁶ If one considers districts/talukas with larger proportion of Forest Villages, the picture may get clearer. Of the 4846 forest villages, a large proportion is located in tribal talukas.

Table 9: Correlation matrix of vulnerability among households in the 43 Tribal Talukas in Gujarat

	ST (%)	Urban (%)	Literacy	Sex ratio	Forest	Road	SSI	Pasture	Workforce	BPL-ST	BPL-NST	BPL-All
ST (%)	1											
Urban (%)	-0.296	1										
Literacy	-0.338(*)	0.185	1									
Sex ratio	0.595(**)	-0.192	-0.253	1								
Forest	0.278	-0.053	-0.436(**)	0.163	1							
Road	-0.005	-0.375(*)	0.008	-0.124	0.420(**)	1						
SSI	-0.135	0.393(**)	0.435(**)	-0.101	-0.284	-0.172	1					
Pasture	-0.226	-0.082	0.024	-0.340(*)	-0.237	0.037	-0.138	1				
Work force	0.517(**)	-0.351(*)	-0.194	0.367(*)	-0.152	-0.131	-0.155	-0.1	1			
BPL-ST	0.131	-0.115	-0.524(**)	-0.019	0.134	0.072	-0.337(*)	0.061	-0.008	1		
BPL-NST	0.334(*)	-0.16	-0.682(**)	0.234	0.571(**)	0.173	-0.450(**)	-0.167	0.185	0.651(**)	1	
BPL-All	0.412(**)	-0.196	-0.598(**)	0.178	0.258	0.089	-0.370(*)	-0.015	0.103	0.921(**)	0.744(**)	1

Forest: Percentage of forest area

SSI: Number of Small Scale Industries in that Taluka

Pasture: Percentage of pasteurized land

Work force: Work Participation Rate

BPL-ST: Percentage of Households below poverty line from Scheduled Tribe

BPL-NST: Percentage of Households below poverty line from Non -Scheduled Tribe

BPL-All: Percentage of Households below poverty line from Total

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

3. Scope for Forest-based Livelihood Opportunities

3.1. Forest Resources and Scope for Livelihood Support

Gujarat state has 18,612 sq. kms. of forest land, which constitutes about 9.6 per cent of the total geographical area in the state. Of the total forest land 15152 sq. kms. was under actual forest cover by the turn of the century. This accounts for 7.7 per cent of the geographical area. The Forest cover constitutes only 8,673 sq.kms. (57.2%) of dense forest, the rest is open forest. Besides these there are areas under tree, shrubs, grassland, mangroves outside the forest area.

Against this, the proportion of tribal population is almost 1.5 times that of the forest area. This creates an initial adverse condition for tribal communities, a majority of which depended substantially on forest for deriving at least a part of their livelihood. Another important feature is that a substantial part of the forest area in Gujarat is located in dry and semi arid regions consisting of districts like Banaskantha, Sabarkantha, parts of Vadodara and Bharuch. Hence, much of the forest in the state is degraded (Shah, 2006).

Notwithstanding the degradation, forest resources offer significant potential for supporting livelihood among large proportion of the poor, including the tribal communities. According to an estimate, the value of timber and fuel wood is Rs. 90,550 per ha. (Gudimeda, *et. al;* 2007).

This is nearly half of the value estimated for All India, which is Rs. 1.77 lakh per ha. Given the different climatic-ecological features, the value of timber and fuel wood could be viewed as fairly reasonable. Improved management of forest may further enhance the value of its various produce, a part of which could directly support people's livelihood on a sustained basis.

According to the available estimates for Gujarat, contribution of forestry may vary from Rs 1500 to Rs 5500 per household per annum [ORG, 2005]. The major contribution of forests is through fodder for grazing (75.4%), firewood (18.0%), minor forest produce (4.7%) and timber/bamboo for house construction and repairs (1.9%).

It has been clearly recognized that regeneration of degraded forest and also pastures and grasslands is the major task facing forest management in the state. This is possible only by involving local communities in management and recognizing their legitimate share in the fruits of regeneration. Joint Forest Management (JFM) thus, occupies special significance in this context. A study by the World Bank (2006) indicated that if properly operationalised, JFM could bring as high as Rs. one million worth of forest produce for supporting the livelihood of the communities. Processing and value addition may also grow further by using new technologies for processes and products.

Similarly, a study on JFM in Karnataka indicated that the cases with relatively better success did indicate some correlation between having a large forest area, low irrigation, and ST community on the one hand and community's interest in JFM on the other. The study also noted that with increase in irrigation, community's interest in JFM starts receding. Nevertheless this may still leave out a sub-set of tribals/rural communities who may continue to depend on forest resources. It was therefore recommended that if JFM could be restructured to include only such forest dependent households, it has a potential of 'a second land reform whereby resource poor households may get compensatory rights over public land resources' (Lele, *et.al*; 2005).

Gujarat has been one of the leading states for promoting JFM. By 2000 there were 1424 JFM-Committees in Gujarat, which covered 1.6 lakh ha. of forest area and 1.49 lakh people. Of the total population covered by the JFM-Committees, about 83 per cent were tribal. The average area per person works out to be 1.07 ha. Proper management of forest and arrangement for benefit sharing may yield significant benefits to the tribal and other households living in these areas.

3.2. Forest Area and Tribal Dominated Areas

As noted earlier the link between forest resources and tribal poverty in Gujarat is not very clear. To an extent, this could be due to the fact that several of the 43 Tribal talukas in the state has fairly limited forest-land. For instance, nine out of the 43 talukas has less than 10 per

cent of the geographical area as forestland and another nine talukas have forestland ranging between 10-20. The remaining 25 talukas have more than 20 per cent of the geographical area as forest land. The land use data however, may not have taken into account forest villages as noted earlier⁷.

Given this scenario, livelihood support from regeneration of forest may not assume special significance especially among the nine talukas having less than 10 per cent of forestland. The following pattern may help while evolving a strategy for forest-based livelihood support across tribal dominated talukas in the state.

Table 10: Extent of Forest Area in 43 Tribal Talukas

Forest Area (%)	No. of Tribal Talukas	Name of the Talukas
Up to 10	9	Tilakwada, Valia, Bardoli, Mahuva, Mangrol, Nizar, Vansada, Chikhli, Pardi
10-20	9	Meghraj, Fatepura, Garabada, Jalod, Ghoghamba, Jetpur Pavi, Jhagadia, Umargam
20-30	10	Dahod, Devgadh Baria, Limkheda, Santarampur, Kavant, Naswadi, Sagbara, Mandavi, Uchhal, Vyara
30 and above	15	Bhiloda, Khedbrahma, Vijaynagar, Dhanpur, Kadana, Chhotaudepur, Dediapada, Songadh, Nandod, Umarpada, Dharampur, Karpada, Amirgadh, Danta

Source: Land Use Statistics for Gujarat

The estimates of forest-land based on the land-use data however need further verification. In the absence of this, we have tried to look at the distribution of talukas by extent of forest villages among the 43 tribal talukas. It is observed that whereas four talukas have less than 20 forest villages; whereas 25 talukas have more than 60 forest villages, which may constitute a fairly large proportion of the total land- mass in the taluka. Such information however, is not available.

3.3. Strategies for Forest-Based Livelihood Support⁸

NTFPs in most tribal areas are an important component of livelihoods. They are collected for direct consumption or use and also for sale with or without processing (see Singh, 2008). However, a plethora of rules, regulations, monopoly controls, etc. lead either to a lot of harassment and rent seeking by forest staff or to the gatherers getting a fraction of the value of the products they collect.

⁷ For instance number of Forest Villages in Bansada is 71; in Mahuva 17; and Pardi 12. All these talukas seem to have very limited forest area as noted in Table 10. Also See Foot Note 7.

⁸ This section draws upon the valuable inputs provided by Madhu Sarin and Meena Bilgi during discussions and exchange of notes.

Although, forest-based livelihood support holds significant potential, the experience, especially from JFM till, now has not been so encouraging. The major issues pertain to the quality of land allocated for regeneration under JFM, inequitable sharing of decision making power between the Forest Department (FD) and the community, and lack of clarity on benefit-sharing and redressal mechanisms.

One of the most critical interventions by the government to operationalise the ownership right over NTFPs should be a thorough review of all existing rules, regulations and controls related to collection, transportation and sale of NTFPs. For example:

- Once ownership is vested in the right holders, no government royalty should be chargeable on any NTFP.
- No license fees etc. should be payable by the collectors.
- No transit permits should be required for transporting most of the gathered NTFPs to the market
- Only for carefully selected and threatened NTFPs, should a simple and transparent system of regulation and control be put in place, with the forest department being bound to enforce the same in cooperation with the Gram Sabha.

Some of the important lessons emerging from the experience of JFM could be highlighted as follows:

1. Deregulation in NTFP collection, value addition and marketing giving greater role to CBOs. NTFP trade and processing to be removed from restrictive trade and suitable amendments so the community based organisations have the rights to determine marketing
2. Convergence of activities for forest dependent communities in financing livelihoods from ITDA, Rural Development, SC/ST Welfare Boards, and other programs for enhancing the livelihoods of poor
3. Recognition of Economic Activity Groups as independent registered cooperative societies or producer companies to be managed by people
4. To establish stronger usufructs for sharing the benefit derived from joint and social forest management practice to communities. Separate contractual arrangement for the same will ensure that the communities derive better benefits from the forests and thus greater livelihoods security.

The above measures will ensure that a much larger share of the market value of the NTFPs will reach the gatherers.

At present, some of the most commercially valuable NTFPs are nationalized, with government agencies having monopoly rights over their collection and marketing. This converts the NTFP gatherers into wage labourers who often receive less than the minimum wage for collection while the profits go to the concerned government agency or contractors. This arrangement will need to be drastically overhauled or totally replaced to enable the right holders to maximize

their returns from the produce that they collect. Various community based institutional arrangements have already been developed both within Gujarat and outside for collective action. Federations of women's self-help groups or cooperatives could be nurtured for taking over management of these tasks from the forest department or its agencies.

Tendu patta and bamboo are among the two most commercially valuable NTFPs over which the adivasis will acquire ownership rights. In the case of tendu patta, instead of the forest corporation auctioning large areas to private contractors, the Gram Sabhas should be empowered to organise tendu bush pruning and leaf collection themselves. A federation of gram sabhas/ SHGs/ cooperatives could be provided initial capital for purchasing from the smaller units and selling directly in the market. Where appropriate, bidi rolling could be integrated into the process.

Similarly, there are immense possibilities of enhancing livelihoods through value addition to bamboo once communities acquire ownership rights on the same. Besides the Kotvalias, even other communities could be provided skill training for producing different articles of bamboo. It is essential that value addition should be based on new technological options for converting bamboo into alternative uses such as construction material.

A biomass based approach for exploring alternative technologies and uses of material may assume special significance in this context (See also Datye, 1997). Moving on this trajectory however, may require area based planning for land-use, biomass generation, and its processing besides initial support for promoting technology and alternatives uses of biomass-based production.

Promotion of Self-help groups, of course, is an important component of supporting livelihood among tribals as in the case of non-tribals in most parts of the country. Micro-finance perform both-protective and promotional roles for livelihood. However, the evidence from a number of studies suggests that micro-finance may tend to exclude the very poor and the asset-less. Also, in a group mechanism it may shift the burden of repayment to poor borrowers as against the lenders. Lastly, micro-finance by itself does not reduce poverty, unless it is accompanied by development of backward and forward linkages (Shylendra, 2005). Experiences by a number of initiatives in tribal areas in Gujarat suggest that though, a necessary condition, micro finance has to be preceded by access to productive assets, vocational training, and development of new technologies and markets. Nevertheless, the field experience indicate that self-help groups, if properly federated and sustained, could provide substantial scope for the poor to explore newer options of livelihood. The need however, is to ensure institutional support and hand holding over a longer period of time rather than limited only to the timeframe of the project-intervention.

The recent policy initiative under the Tribal Land Rights Act may move further into this direction. Particularly, the emphasis on the community-based access to forest-land may hold special significance. What is however, needed is a fresh thinking on the legal, institutional and market arrangements.

It is however, imperative to note that the above approach for promoting NTFP-based livelihood support has to balance against the basic objective of regeneration and net increase in the forest cover rather than being mainly extractive in nature. Maintaining the balance would call for detailed planning and strong institutions for overseeing the implementation over a long period of time.

4. Other Livelihood Options

The above discussion on the potential as well as cautions for promoting forest-based livelihood options are neither universally applicable across all the tribal talukas and households within that, nor feasible given the legal, administrative and institutional constraints. In any case, the proposed approach of forest-based livelihood options does not operate in isolation. Ideally, the approach has to work as part of a multi-pronged and diversified livelihood strategy among the people and areas facing multiple disadvantages. It is however, imperative to recognize that forest-based options are endogenous to the people's/region's livelihood strategies and hence should have direct claims in the share of benefits derived from the development. And second, these options already have significant amount of untapped potential in the present time.

Given this backdrop, this section discusses three important channels, outside forest-based economy, for simultaneously exploring other options for livelihood among the vulnerable households in tribal areas in the state. These include strengthening of regenerative and labour intensive agriculture; enhancing non-farm employment thorough skill formation; and improving the outcomes of out-migration.

4.1. Strengthening Regenerative Agriculture:

The areas covered under the tribal talukas seem to be representing differential agronomic potential. Whereas there are talukas, especially in South Gujarat, having relatively better rainfall as well as groundwater conditions, those in the central and north Gujarat may have characteristics of dry land areas with low rainfall, sandy soil, and depleted groundwater. Both these ideally, may not be best suited for the input (irrigation) intensive and crop-centric agriculture system.

Alternatively, the two sets of tribal areas may adopt a strategy, which seeks to maximize value addition by choosing appropriate mix of various biomass production activities without adversely affecting the degraded/fragile natural resources. While we may not get into the details of what is being termed as 'regenerative' agriculture, it may be useful to emphasize some of the salient features as discussed below:

4.1.1. Salient Features

- Focus on growing a mix of crop, plantation, fodder and other high valued biomass for enhancing net earning per unit of land and/or water in the relatively land scarce areas in the southern part, and more water scarce areas in the northern part of the state.
- Initial investment for developing land and water resources on the lines of watershed development.

- Promotion of labour intensive practices for land and water resources development through initial support of Rs. 10,000 per ha.; this could be dovetailed to NREGS in addition to the investment under watershed projects
- Adopting a cluster of villages, based on a stream or sub-river basin, for developing markets for different biomass production; this would be in tune with the area-based approach.
- Introducing alternative organizational structure such as producer cooperatives, farmers' collectives, producers' Company etc.

Special attention should be given to promotion of livestock sector, which is broad based, and not heavily dependent on extractive irrigation. Appropriate pricing support would be an essential pre-condition for moving in to this direction.

At present, the emphasis in the 10-Points Programme is more on promoting group irrigation, watershed development, and financial support for purchase of oil engines and drip irrigation system. It is imperative that development of irrigation in the region is kept in consonance with the perspectives of sustainability of the resource-use and keeping in view the diversified land use within a larger unit of watershed of say, 30-50,00 ha. In this context, diversification is envisaged within a larger unit of land-use planning for agriculture and allied sectors rather than for each household within the planning unit of a watershed. Within the larger planning unit, it may be useful to explore possibilities of specialization while ensuring minimum security of food supply within the unit.

4.2. Promoting Non-Farm Employment and Skill Formation

Non-farm employment and literacy assume special significance in poverty reduction across most regions and communities in the country. The analysis of correlates in section 2 also substantiated this finding. Unfortunately, workforce diversification, a desired trajectory of development, is found to be fairly weak in the tribal areas as noted earlier.

The difficulties in realizing this most desired trajectory are manifold, besides the fact that promotion of non-farm employment is contingent on the growth in agriculture and allied sector itself. The other constraints emerge from the factors such as: (i) location specificity of industrial growth; (ii) low employment elasticity and low quality of employment mostly in informal sector; (iii) lack of required skills among the local workers as well as those seeking work; (iv) preference for workers having on the job skills; and (v) role played by labour contractors in supplying 'docile' labour from outside the area.

There is still a substantial scope for promoting workforce diversification, essentially through training and skill formation. The issue of discrimination based on low social-cultural-financial capital, may still continue to leave out tribal/poor workers from the growing yet already crowded market for skilled labour in non-farm sectors. This may imply that while skill formation is a necessary condition for entry into the job market, it may not be a sufficient condition. It is quite unlikely that a potential employer may pick up workers from tribal/poor communities if

those with given similar skill-base but with better socio-economic background, are also available. In many cases, workers from outside the area are more likely to be preferred.

The need therefore is to make special provision for including local workers in the workforce of non-farm units. There are already some provisions for correcting the discrimination against local workers. For example the Land Acquisition Act requires that the units developed on the land, should employ at least one person from the family of those who lost land. Similarly, Project Linkage Approach, adopted during the early phase of industrial estates in the state did make special provisions for development of skills, entrepreneurship, road connectivity, and basic amenities in the peripheral region⁹. Also there are some corporate initiatives in the field of skill formation.

It is not clear how far these provisions would carry weight at the time when a lot of new industrial development is likely to take place within Special Economic Zones. The issue therefore deserves much more calibrations, going beyond skill formation, if shifting a substantially large number of workforce in high productive skill-based employment is to take place within a reasonable time frame, say, the next 10 years.

The proposed allocation of Rs. one core per taluka per year offer substantial scope for developing economic activities on a cluster based approach and market linkages. While much of this is focused on promotion of processing agriculture and forestry products; manufacturing and tertiary sectors, it is essential that these activities are preceded by strong backward linkages with the primary sector.

4.3. Supporting Migrant Workers

Out migration, in absence of the other options, emerges as the most important coping mechanisms among tribal and other communities in the tribal areas. Although we do not have estimates on migration from these areas, migrants from tribal communities constitute a formidable workforce in various parts of the state. To a large extent, migration pattern in Gujarat is dominated by out migration from dry land areas in Saurashtra and Kachchh and also from backward areas in the eastern tribal belt [Shah, 2001a]. However, much of the migration from the Eastern region, at least till the turn of the century, was within the same district as against those migrating from Saurashtra and Dry land regions in the state (Unni, 2006] Visible mainly as construction workers and roadside dwellers in urban centers and on irrigated farms, migrants from tribal areas, especially Dahod and Panchmahals, have moved to distance places in Saurashtra region. The irony is that tribal workers from these areas undertake agricultural operations, often as share croppers, in a region where farmers from this drought prone region are fleeing away to South Gujarat.

Evidently, migration, distress type or development induced, does help the tribal/poor households in supporting their livelihood. The issue therefore, is to enquire the work conditions and terms of

⁹ For a detailed analysis of Project linkage Approach in Ankleshwar Industrial Estate, see Shah, 2001

employment at the places of migration, and whether special support could be extended to these workers along with other informal workers¹⁰. While the recent policy initiatives on informal workers does include migrants as a special category, much needs to be enquired about the actual conditions and the scope to improve the outcomes of their migration, often under sub-human and hostile environment.

5. Summary and Policy Implications

The foregoing analysis on the status, opportunities and challenges for livelihood among tribal areas in Gujarat reconfirmed certain of the known realities, at the same time, brought some new insights. The insights emerged mainly from the emerging perspectives on tribal-livelihood, which could broadly be grouped into two: forest-based and other consisting of regenerative agriculture, workforce diversification and migration. The discussion highlighted the point that forest-resources have a special niche in shaping livelihood of tribal and other communities in the designated tribal areas. This however, does not mean that forest-based livelihood should be the mainstay of livelihood of all households in these areas. This is neither (environmentally) desirable nor, feasible in at least a sub-set of tribal talukas (18 out of 43) where forest area is almost negligible.

The important point about forest-based livelihood at least for the remaining 25 talukas is that-there is a substantial potential for regeneration of forest in these areas, and that the people over there should have rightful share in the regenerated resources-either through extraction and processing of NTFPs or through compensation mechanism for conserving the forest. Nevertheless forest-based livelihood approach may not be followed in isolation of the other approach options for livelihood-each of these also have some scope as well as constraints as summarized in Box 3.

Box 3: Livelihood Options in Tribal Areas-Scope, Constraints, and Implications

Livelihood Options	Scope/Main Features	Challenges/Constraints	Policy Implications
Forest-based	Regeneration of Degraded Forest/ Pastures and Possession of NTFPs (including medicinal plants)	Lack of clarity on benefit sharing and absence of redressal mechanisms; Absence of Market linkages and Pricing Support; Risk of Over Exploiting Forests for Supporting Livelihood	Coordination between Forest and Tribal Development Plans; Developing Compensation Mechanism for Regeneration and Conservation of Forests; Rights-based Approach for Promoting Community-based Forest
Regenerative Agriculture	Substantial Investment (mainly labour) for Recouping Land Productivity; Limited Use of External Inputs; Maximising Biomass vs. Crop Yields; Promotion of Renewable Energy to	Gestation Period for Reviving Primary Productivity of Land; Support for Investing Labour on Private Land; Right Kind of Pricing; Development of Markets for Exchange of Biomass (fuel; fodder; green	Initial High Cost or Price Support to be Treated as Entitlement for Livelihood and Compensation for Regenerating Ecology; Dovetailing NREGS and WDPs.

[contd....]

¹⁰ National Commission for Enterprises in the Unorganised Sector recognizes need to protect migrant workers on par with other informal workers in the country. For details see, NCEUS, 2007.

[...contd]

Livelihood Options	Scope/Main Features	Challenges/Constraints	Policy Implications
Livelihood Options	Reduce Pressure on Forest; Farming Systems with right-mix of Crops, Plantation, Other Biomass; Differential Biomass-mix Inputs for Land Scarce and Water Scarce Tribal Areas in South and Central-North Gujarat.	matter for mulching; bio-fertiliser/pesticides etc).	
Workforce Diversification and Skill Formation	Processing of NTFP and Agro-Products; Promoting SSIs and Industrial Infrastructure; Skill Norms	Traditional Agro-Processing Having Limited Scope in Absence of Significant Increase in Productivity and Stability of Yields; Location Specificity and Imperfections in Labour Markets; Preference for Outside Labour among Large Units; Overall Low Employment Elasticity of Manufacturing Sector; Relaxation of Labour Standards under SEZs	Creation of Agency for Negotiating Recruitment Policies among Industrial Units; Revival of the of Notified Areas Development/Project Linkage Approach; Corporate Social Responsibility
Migration	In Rural and Urban Economies Outside the Tribal Areas; Share Cropping; Infrastructure Development including SEZs	Adverse Incorporation	Protection of the Rights of Migrants as Informal Workers; Capital Formation for Agriculture and other Occupations; Information Support

The complex scenario noted above lead to two major approaches for promoting livelihood among people in the tribal areas. These are: (a) area based approach for sustainable production in agriculture and allied sectors by developing markets, new organizational mechanisms; and (b) rights based approach for ensuring clear entitlement, benefit-sharing, compensation, and redressal mechanisms. Both these approaches may cut across various livelihood options discussed above.

Promotion of Self-help groups, of course, is an important component of supporting livelihood among tribals as in the case of non-tribals in most parts of the country. Nevertheless, access to micro credit, in absence of access/control over productive resources may not go a long way in promoting livelihood options, especially those based on forest resources involving traditional technologies, and markets. The need therefore is to simultaneously strengthen the resource development and access; introduction of new technologies/products; and credit as well as market support.

The need therefore is to look for a comprehensive assessment of the opportunities and challenges rather than having a sectoral view. This would necessitate fresh thinking, new legal and administrative arrangements for perusing cluster/area based approach, and new forms of organizations and local institutions to raise and negotiate people's stakes into the process of high economic growth in the state. These are tough prescriptions; easy solutions may not work in a scenario like this where a substantially large proportion of tribal people and areas have continued to live under absolute poverty, multiple deprivation and growing inequality.

Appendix I: Percentage of BPL Households for Scheduled tribes and others in tribal Talukas, Gujarat 2002-03

Taluka Name	Households BPL			Percentage of Households BPL		
	ST	NON ST	ALL	ST	NON ST	ALL
BHILODA	11921	10164	22085	39.26	36.99	38.18
KHEDBRAHMA	24270	3634	27904	68.31	29.43	58.28
MEGHRAJ	3726	7657	11383	28.87	30.85	30.17
VIJAYNAGAR	7507	1525	9032	44.84	27.54	40.54
DAHOD	32045	1683	33728	79.74	40.26	76.02
DEVGADBARIA	4190	15530	19720	70.82	57.62	60.00
DHANPUR	12650	5852	18502	87.93	71.39	81.93
FATEPURA	26489	2806	29295	81.87	51.35	77.47
GARBADA	22291	986	23277	78.95	44.24	76.41
JHALOD	46987	3502	50489	74.39	39.61	70.12
LIMKHEDA	18781	7465	26246	64.22	39.28	54.40
GHOGHMBA	9165	10158	19323	74.79	47.25	57.25
KADANA	9104	2492	11596	56.32	33.16	48.97
SANTRAMPUR	24346	4548	28894	67.57	45.00	62.62
CHHOTA UDAIPUR	27611	1532	29143	71.30	53.66	70.09
JETPUR PAVI	22393	4134	26527	56.18	36.82	51.93
KAWANT	20467	1182	21649	64.02	42.27	62.27
NASVADI	17292	1338	18630	63.43	31.15	59.03
DEDIAPADA	23594	1312	24906	77.76	62.99	76.81
NANDOD	24617	3989	28606	76.51	44.09	69.39
SAGBARA	15302	1469	16771	79.51	60.98	77.45
TILAKWADA	5589	3166	8755	79.89	43.00	60.97
JHAGADIA	22887	4496	27383	75.61	30.71	60.98
VALIA	20035	1414	21449	73.82	21.45	63.58
BARDOLI	15164	1310	16474	67.34	9.92	46.12
MAHUVA	15698	1078	16776	51.00	21.12	46.75
MANDVI	18961	1443	20404	51.44	16.79	44.89
MANGROL	12234	1531	13765	51.10	9.73	34.69
NIZAR	19881	1748	21629	79.26	32.29	70.92
SONGADH	11978	723	12701	30.21	34.14	30.41
UCHCHHAL	15504	309	15813	63.59	58.86	63.49
UMARPADA	11710	793	12503	59.86	41.45	58.22
VALOD	6937	500	7437	44.82	11.66	37.63
VYARA	18599	569	19168	35.40	27.54	35.11
BANSDA	9427	637	10064	24.50	10.78	22.68
CHIKHLI	17801	3010	20811	41.17	14.72	32.68
DHARAMPUR	19373	535	19908	53.80	51.89	53.75
KAPRADA	35916	1304	37220	85.49	64.05	84.50
PARDI	17346	3393	20739	49.10	15.14	35.92
UMBERGAON	11198	3756	14954	53.88	23.41	40.61
DANGS	33159	2185	35344	71.91	51.08	70.14
AMIRGADH	7183	5132	12315	70.26	50.37	60.33
DANTA	12757	10024	22781	75.70	47.69	60.15
TOTAL	764085	142014	906099	61.75	34.65	55.01

Source: Calculated from Socio-Economic Survey, 2002-03. Department of Rural Development, Government of Gujarat.

Appendix II: Distribution of Tribal Talukas by Percentage of Households below Vulnerability Score (<21) for Selected Variables

Percentage Below Vulnerability Score	All		ST	
	No	%	No	%
Land Type A1: Landless				
<=50	4	9.30	0	0.00
51-75	25	58.14	13	30.23
76+	14	32.56	30	69.77
Land Type B2: < 1 ha Non –irrigated or 0.5 h irrigated				
<=50	18	41.86	17	39.53
51-75	21	48.84	18	41.86
76+	4	9.30	8	18.60
Household Labour B2: Female & Child labour				
<=75	8	18.60	6	13.95
76-85	10	23.26	7	16.28
86+	25	58.14	30	69.77
Household labour C3: Adult female & no Child Labour				
<=75	25	58.14	18	41.86
76-85	12	27.91	12	27.91
86+	6	13.95	13	30.23
Household labour D4: Adult male labour				
<=50	17	39.53	11	25.58
51-75	22	51.16	26	60.47
76+	4	9.30	6	13.95
Children Status A1: Not going to School & Working				
<=75	12	27.91	10	23.26
76-85	21	48.84	15	34.88
86+	10	23.26	18	41.86
Children Status B2: School going & working				
<=50	4	9.30	3	6.98
51-75	18	41.86	12	27.91
76+	21	48.84	28	65.12
Migration A1: Casual Work				
<=85	9	20.93	6	13.95
86-90	11	25.58	8	18.60
91+	26	60.47	29	67.44
Migration B2: Seasonal Employment				
<=50	7	16.28	3	6.98
51-75	22	51.16	20	46.51\
76+	14	32.56	20	46.51

[contd...]

[...contd]

Percentage Below Vulnerability Score	All		ST	
	No	%	No	%
Landholding A1: Own				
<=50	22	51.16	19	44.19
51-75	16	37.21	19	44.19
76+	5	11.63	5	11.63
Landholding B2: Ganotiya				
<=50	11	25.58	8	18.60
51-75	19	44.19	18	41.86
76+	13	30.23	17	39.53
Food Security D4: 2 m/day with Occasional Shortage				
<=50	8	18.60	7	16.28
51-75	26	60.47	20	46.51
76+	9	20.93	16	37.21
Food Security E5: Enough food for yr				
Food Security		0.00		0.00
<=25	21	48.84	16	37.21
26-50	21	48.84	24	55.81
51+	1	2.33	3	6.98
Livelihood A1: Casual Labour				
<=50	1	2.33	1	2.33
51-75	13	30.23	11	25.58
76+	29	67.44	31	72.09
Livelihood B2: Subsistence Cultivation				
<=50	29	67.44	22	51.16
51-75	12	27.91	17	39.53
76+	2	4.65	4	9.30
All	43	100.00	43	100.00

Note: For details see Appendix I.

Source: Calculated from Socio-Economic Survey, 2002-03. Department of Rural Development, Government of Gujarat

Appendix III: Selected Indicators of Poverty and Forest for Tribal Dominated Districts, Gujarat

No	Districts	Total No. of Villages	% Forest Villages	% Forest Area	% of Talukas with > 40% BPL	BPL HHs %
1.	Sabarkantha	1372	35.8	12.58	61.5	43.73
2.	Panchmahals	1894	52.6	13.45	100	69.92
3.	Dahod			14.01		80.80
4.	Vadodara	1548	24.4	10.35	41.7	38.06
5.	Bharuch			4.37		51.11
6.	Narmada	127	35.6	38.14	91.7	82.66
7.	Surat	1167	28.8	21.59	73.3	48.21
8.	Navsari	824	43.9	15.44	80.0	53.66
9.	Valsad			32.35		50.65
10.	The Dangs	311	74.9	79.30	100.0	86.89

Source: Calculated from Socio-Economic Survey, 2002-03. Department of Rural Development, Government of Gujarat.

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