

Consumption patterns, nutritional norms and poverty levels of Scheduled Tribes in Andhra Pradesh: A study of Jatapu Tribe in Seethammapeta Mandal of Srikakulam District

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Abstract

The Constitution of India seeks to secure for all its citizens, among other things, social and economic justice, equality of status and opportunity and assure the dignity of the individual. Several provisions have been incorporated in the constitution for safeguarding and promoting the interests of the scheduled tribes in various spheres so as to enable them to join the national mainstream. [In our study the income and expenditure relationship examined across different income groups indicates that there is a decline in the share of food expenditure as the income increase, indicating an inverse relationship between per capita income and share of food expenditure. Agriculture is the prime and predominant occupation of tribals and the culture of the tribal communities is reflected in their agricultural practices. The agro-climatic conditions and the resource potentialities differ from one tribal area to another. This is due to the nature of soil, fertility, availability of water etc. Due to prevalence of unemployment and underemployment, agriculture alone cannot sustain them throughout the year. So, the tribals must rely on labour works and the forest produce which occupies and plays an important role in their daily life. Hence, the tribal economy may rightly be called as agro- forest- based economy. The isolated location of the tribes from the mainstream of life is hindering their economic activities. The illiteracy among the tribals and the rich forest produce have tempted the money lenders and small traders to exploit the tribals. [The present paper attempts to examine the human development among tribal communities in Andhra Pradesh.

Keywords: Schedule Tribes; Andhra Pradesh; Agriculture; Forest based economy.

Introduction

The tribes generally have a group of families living together and these groups have pre-historic economy, with several rituals and customs. Certain tribal languages have no script except speech. They live in interior forest areas far away from the civilized world. They have slash burn cultivation and hunting of wild animals as the way of life. They have a common religion, common customs and live as a community. In general, tribes are peculiar type of people living all over the world. Agriculture is the prime and predominant occupation and the culture of the tribal communities is reflected in their agricultural

practices. The agro-climatic conditions and the resource potentialities differ from one tribal area to another. This is due to the nature of soil, fertility, availability of water etc. Due to prevalence of unemployment and underemployment, agriculture alone cannot sustain them throughout the year. So the tribals must rely on labour works and the forest produce which occupies and plays an important role in their daily life. Hence, the tribal economy may rightly be called as agro-forest- based economy. The isolated location of the tribes from the mainstream of life is hindering their economic activities. The illiteracy among the tribals and the rich forest produce have tempted the money lenders and small traders to exploit the tribals. India ranks the second in having the tribal concentration in the world, next only to Africa. India holds a unique position in the concentration of tribal communities. There are about 532 schedule tribes in India. They speak about 100 languages and 255 subsidiary languages.

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The growth rates of schedule tribe population in Andhra Pradesh are 5.47, 2.24, 6.50, 2.79 and 3.01 for the years 1951, 1961, 1971, 1981, 1991 and 2001 respectively. Except 1961 and 1991, the decadal growth rate of tribal population is more than the growth rate of general population. From 1951 to 2001 the tribal population has increased by five fold, but for the general population it is only 1.5 times.

The tribal villages are inhabited by different variety of tribes. The important tribes are Gonds, Andhs, Thothis, and Kolanes in Adilabad district. Koya, Konda Reddies, Naikpads in Khammam, Warangal and Godavari districts. Bagatha, Valmiki, Kondhs and Jatapus in the districts of north coastal Andhra Pradesh. Chenchus in the pockets of Mahaboob Nagar, Kurnool and Prakasam Distiricts. The social structure of the various tribal groups resembles which is due to their similar clan organizations. The social practices, customs, beliefs and code of conduct are almost common among the various tribal groups. Almost all the tribal groups in Andhra Pradesh eat cooked food. Some tribes in higher community status generally do not accept cooked food from other tribal communities who have a lower status. The tribal economy is very poor and almost intertwined with the social phenomena.

Methodology

The primary data comprised of collecting information during the months of June and July 2010 from the selected sample tribal households in the tribal areas. The multistage stratified random sampling method was used for the study. There were four stages in which sampling process was carried out. The first stage was selection of district, the second stage consisted of selection of mandal, the third stage was selection of villages and the fourth stage was selection of households. Out of the nine districts of Andhra Pradesh which have a concentration of tribal population, Srikakulam District was selected.

The second stage of sampling consisted of selection of mandal. The selected Seethampeta was the only tribal concentrated mandal out of 37 mandals of Srikakulam district. Out of 37, 19 mandals have tribal population in Srikakulam district, with a total of 11, 9304 tribal population. Seethampeta alone had 40, 189 tribal population (33.69 per cent of total tribal population of the district).

The third stage of sampling consisted of selection of villages. The Seethampeta mandal consisted of 113 revenue villages and five uninhabited villages formed by 24 panchayats and 290 hamlets. To examine the socioeconomic conditions of prominent tribes in Srikakulam District, i.e. Jatapu, the specific tribe population concentration was considered in the selection of villages. Specific tribe population with 80 per cent and less than 90 per cent in the respective panchayats are considered as criteria for selection. After identification of specific tribe concentration in the panchayats, the Jatapu concentrated 10 villages were selected. To examine the differences in the living patterns of Jatapu tribe households in plain and interior villages, among the 10 selected villages, purposively, 5 villages-Panukuvalasa, Manapuram, Pedduru, Pedarama and Valegaadda villages on road side plain villages of the Seethampeta mandal are selected. Similarly the remaining 5 villages-Jayapuram, Kusumuru, Talada, Tadipai and Pedapolla were selected from the interior parts of the Seethampeta Mandal.

In the final stage, from Jatapu concentrated villages, a number of 20 households were selected from each selected village and, as a whole, from the selected 10 villages, a total of 200 Jatapu tribe households were selected.

This paper deals with the consumption patterns, nutritional norms and poverty levels of Jatapu Tribes in Seethampeta Mandal of Srikakulam District of Andhra Pradesh.

Consumption Patterns of the Sample Households

The consumption expenditure pattern at a point of time speaks about the living standards

of the people. To analyze the patterns of consumption, household data were obtained from individual households regarding the expenditure on food and non-food items. Data relating to daily routine items of expenditure were obtained for a period of 30 days, whereas data relating to occasional items of expenditure were collected for a period of one year. The expenditure data on specific items obtained for one year were converted for one month to facilitate comparison.

The relationship between income and expenditure on food and non-food items, has assumed greater importance for many economists. Notable among them is Engle. Engle's hypothesis regarding the income-consumption relationship postulates that the share of expenditure on food declines with the rise in income of the families. Against this background of Engle's hypothesis, the income-consumption relationship of the different tribes is analyzed; as the present study refers to a single point in time, cross-section analysis was attempted. Village-wise average household monthly income and expenditure and average per capita monthly income and expenditure on food and non-food items was estimated.

Consumption on Food Items

It was observed that the share of expenditure on food items was high in case of all villages and also for the total as a whole. Thus, the results of this study are consistent with Engle's hypothesis of income-expenditure relationship. To examine Engle's hypothesis in detail the average household and average per capita expenditure of all the sample households on various food and non-food items was collected. It is evident from Table 1 that in the total quantity of food consumption, rice constituted a substantial quantity (58.30%). Out of 58.30 per cent of rice, 32.78 per cent of it was purchased from open market and the rest of 25.52 per cent from the fair price shops, run by government at subsidized prices.

The other important items purchased from the fair price shops by the tribal households were sugar, kerosene and vegetables that constituted about 14.00 per cent of total purchases. Other items like pulses, edible oils and meat constituted less than 5 per cent each. The variation in the percentage of quantity purchased by the households in the interior villages is relatively low when compared to their counterparts in the villages in the plain areas.

Table 1. Consumption Pattern of Quantities of Food

(Quantity in Kgs.)

S. No	Village	Rice from Open Market	Rice from F.P shops	Other items from F.P shops	Pulses	Edible oil	Meat	Vegetables	Total
I. Villages in plain areas									
1	Panukuvalasa	581	335	340	68	70	72	286	1752
2	Manapuram	575	315	215	65	61	75	253	1559
3.	Pedduru	512	418	196	75	75	75	282	1633
4	Pedarama	545	431	148	68	63	65	225	1545
5	Valegedda	584	445	185	82	60	60	254	1670
II. Villages in Interior areas									
1	Jayapuram	350	325	220	55	49	65	189	1253
2	Kusumur	425	380	237	65	57	58	130	1352
3	Talada	355	319	204	59	59	58	151	1205
4	Tadipai	395	345	139	65	63	40	195	1242
15	Pedapolla	450	402	160	55	55	45	180	1347
	Total	4772	3715	2044	657	612	613	2145	14558
		(32.78)	(25.52)	(14.04)	(4.51)	(4.20)	(4.21)	(14.74)	(100.00)

Note: The figures presented in the parenthesis are percentages to total.

Tribal people in general spent a higher proportion of their income on food items. Their food items included cereals like rice, Ragi, Samalu, Maize, Jowar, Bajra; pulses, like red-gram, black-gram, green-gram, horse-gram etc. They also consumed other items like vegetables, meat, fish, edible oil, salt, tamarind, jaggery etc. It is evident from the field data that almost 58.56 per cent of the average monthly household expenditure was spent on food items. Among different villages, expenditure on food items was relatively higher among the households living in the interior villages rather than their counter parts villages in plain areas. Further it is noticed

that nearly 70 per cent of food expenditure is spent on rice by all households. The information relating to the consumption pattern of value of food is presented in Table 2.

It can be noticed from the table that the information relating to consumption patterns of value of food corroborates with their consumption pattern of quantities of food. The households living in the interior villages spent more proportion of their incomes on food items rather than their counterparts living in the villages in the plain areas.

Table 2. Consumption Pattern of Values of Food

(Amount in Rs.)

Sl. No	Village	Rice from open market (Kgs.)	Rice from fair price shop (Kgs.)	Other items from fair shop (Kgs.)	Pulses (Kgs.)	Edible oil (Kgs.)	Meat (Kgs.)	Vegetables (Kgs.)	Total (Kgs.)
I. Villages in plain areas									
1	Panukuvalasa	3680	1530	720	1090	2020	1680	844	11564
2	Manapuram	3300	1442	772	920	1820	1520	635	10409
3.	Pedduru	3929	1096	800	980	1760	1590	725	10880
4	Pedarama	3640	1313	718	1046	1800	1115	778	10410
5	Valegedda	3650	1306	681	990	2000	1560	710	10897
II. Villages in Interior areas									
1	Jayapuram	3370	1569	670	650	1712	900	720	9591
2	Kusumur	3330	1236	685	890	1600	1250	680	9671
3.	Talada	3100	1220	640	780	1240	985	625	8590
4	Tadipai	3100	1390	690	790	1260	1020	643	8993
5	Pedapolla	3127	1306	572	755	1820	1520	635	9735
	Total	34326 (34.07)	13408 (13.38)	6948 (6.90)	8891 (8.85)	17032 (16.91)	13140 (13.04)	6995 (6.85)	100740 (100.00)

Note: The figures presented in the parenthesis are percentages to total.

Expenditure on Food and Non-Food Items

Average monthly household expenditure and per capita expenditure of tribal households on non-food items revealed that about 46 per cent of the average household and per capita expenditure was spent on non-food items. On average, monthly per capita expenditure on non-food items was relatively higher on items such as clothing, fuel, lighting, cosmetics etc., by the households living in the villages in 'plain areas. On the other hand the households living in the interior villages spent more on items like tobacco, pan, beverages, festivals and ceremonies, house repairs etc. It is interesting to note that the per capita intoxicant expenditure was very high among the households in the interior villages than their expenditure on education and health. The information relating to consumption on

food and non-food items by the selected households in the interior and plain villages is presented in Tables 3 and 4.

It is evident from the Tables 3 and 4 that the percentage distribution of annual per capita consumption expenditure was according to different villages' income groups of households. It can be observed from the field data that the expenditure on food item was relatively high among the households in the first three lower income groups who were particularly from the interior villages. That means the proportion of expenditure on total food items declined with an increase in income in case of all villages. Among the different food items, expenditure on cereals decreased while that on pulses and other food increased with an increase in the income in all the individual cases. On the non-food item front, the

Table 3. Annual Per Capita Consumption Expenditure on Food and Non-food Items by the Households in Interior Villages

S. No.	Items	Annual average per capita income groups					Total (in Rs.)	
		Below 2000	2000-2500	2500-3000	3000- 3500	3500- 4000		4000 above
I. Food items								
1.	Cereals	55.63	53.16	49.76	44.67	40.72	-	49.30
2.	Pulses	3.26	3.47	4.62	5.68	6.03	-	4.14
3.	Other food items	10.29	10.95	11.14	12.51	13.03	-	11.56
	Total food	69.18	67.58	65.52	62.86	59.78	-	178 (65.00)
II. Non - Food items								
1.	Fuel & light	3.25	3.46	3.72	4.24	4.71	-	4.12
2.	Tobacco & Pan	5.24	5.12	4.79	4.16	3.68	-	4.51
3.	Intoxicants	5.29	4.46	5.12	4.91	3.78	-	4.68
4.	Clothing	4.14	4.67	4.79	5.28	5.87	-	5.13
5.	Festivals	5.19	4.37	3.26	4.14	4.12	-	4.62
6.	Health	0.56	0.83	1.37	1.46	2.23	-	1.24
7.	Education	0.37	1.29	1.44	2.43	3.02	-	1.68
8.	Travel	1.23	2.12	2.16	2.14	2.38	-	2.91
9.	House repairs	1.12	2.31	2.66	3.12	3.46	-	2.82
10.	Cosmetics	1.21	1.41	1.58	1.16	1.12	-	1.21
11.	Consumer durables etc.	1.27	2.36	2.46	2.28	2.69	-	2.03
	Total Non-food	30.82	21.42	34.48	37.4	40.22	-	1104 (35.00)
	Total Expenditure	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	-	282 (100.00)

expenditure on tobacco and pan, intoxicants and festivals was relatively higher in the lower income groups, particularly households from the interior villages. On the other hand, the expenditure on clothing, health, education, cosmetics and house repairs are relatively higher in case of higher income groups, particularly among the households from the plain areas. Thus, the expenditure patterns of the households synchronizes with the general expenditure pattern of the rural sector.

Table 4. Annual Per Capita Consumption Expenditure on Food and Non Food Items by the Households in the Villages in Plain Areas

S. No.	Items	Annual average per capita income groups					Total (in Rs.)	
		Below 2000	2000-2500	2500-3000	3000-3500	3500-4000		4000 above
I. Food items								
1.	Cereals	-	43.16	40.54	36.82	33.67	28.46	36.52
2.	Pulses	-	5.34	5.69	6.21	6.52	7.18	6.71
3.	Other food items	-	8.64	9.97	12.33	15.03	16.62	10.66
	Total food	-	57.14	56.26	55.36	53.22	52.26	192 (54.00)
II. Non - Food items								
1.	Fuel & light	-	4.12	3.29	4.47	4.80	5.26	4.27
2.	Tobacco & Pan	-	3.19	3.16	3.41	3.53	1.59	2.86
3.	Intoxicants	-	4.12	3.35	2.81	3.72	2.12	3.12
4.	Clothing	-	3.27	4.28	5.32	5.16	6.43	5.26
5.	Festivals	-	4.56	3.28	3.16	2.53	1.66	3.23
6.	Health	-	3.12	4.46	5.10	5.24	5.37	5.16
7.	Education	-	3.61	4.72	5.02	5.41	5.48	5.33
8.	Travel	-	3.12	4.16	4.27	4.38	4.33	4.29
9.	House repairs	-	2.53	3.23	3.36	3.52	4.67	4.52
10.	Cosmetics	-	3.68	4.32	6.12	6.74	6.92	6.43
11.	Consumer durables etc.	-	1.46	1.71	2.16	2.76	3.06	2.53
	Total Non-food	-	42.86	43.74	44.64	46.28	47.74	164 (46.00)
	Total Expenditure	-	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	356 (100.00)

Note: The figures presented in the parenthesis are percentages to total.

The major proportion of non-food consumption constituted their expenditure on clothes, health education and others. Across the villages, the extent of expenditure among the households of interior villages was more on food items than on non-food items. The percentage of money spent on entertainment constituted less than 2.85 per cent and was relatively higher in case of households in the villages in plains. Across villages, the households of plain villages spent more on clothes, health, education and others as their total non-food expenditure. However, the expenditure on these items was very limited in case of households in the some of the interior villages. The households in the interior villages spent more on tobacco, pan, intoxicants, ceremonies and festivals as their expenditure on non food items rather than on clothing, education, health etc.,

To know further applicability of Engle's law, the percentage distribution of annul per capita consumption expenditure across different villages are income groups of households It can be observed from the field data that the expenditure on food items was relatively high in the first three lower income groups. That means the proportion of expenditure on total food items declined with an increase in income in case of all villages. Among the different food items, expenditure on cereals decreased while that on pulses and other food items increased with an increase in the income in all the individual cases. Regarding non-food items, the expenditure on tobacco and pan, intoxicants and festivals was relatively higher in the lower income groups. On the other hand, the expenditure on clothing, health, education, cosmetics and house repairs was relatively higher in case of higher income groups. Thus, the expenditure patterns of the households synchronized with the general expenditure pattern of the rural sector and the law propounded by Engle.

Possession of Consumer Durable Goods

Tribal economy is a subsistence economy and any possession of consumer durable goods

can be taken as a positive response to modern ways of living. Information relating to the possession of 10 goods like furniture, radio, watch, tape recorders, television, cycle, scooter, fan, iron, almirah, gas stove, cooker was collected from the sample households. Scores were given on the basis of possession of the articles. A score of 0 was given for non possession of any of these goods and a score of 1 for possession of any one of these goods. Thus, scores were obtained on the basis of minimum and maximum scores of 0 to 10. It was found that no single household had more than 8 of these identified items. The scores of possession of goods across villages are presented in Table 5.

It can be observed from the table that, as a whole, nearly 40.50 per cent of the households did not have any of the selected goods and, in this case, among the tribes, the proportion of households of interior villages was relatively higher than other households in the villages in plain areas. The households of interior villages possessed limited commodities compared to the households in the villages in plain areas. The change in the assets composition among the households of different villages reveals the process of transformation taking place in the living pattern of the households living in the plain areas.

Expenditure on Selected Special Items

Information relating to the household expenditure on certain items which reflects modern living was obtained. The items chosen were toilet soaps, face powder, tooth paste/ powder, wristwatch, transistor, torchlight, chairs, television, and cots. Scores were given according to the possession of selected items by the households. It is interesting to note that a higher proportion of households living in the villages in plain areas spent on more number of selected items rather than households living in interior villages. It may be observed that the responsiveness to modernity in terms of household expenditure on selected goods was more pronounced in case of households living in the villages in plain areas rather than the

Table 5. Distribution of Households by Score of Consumer and Other Durable Goods

S. No.	village	No. of durable goods						Total	
		0	1	2	3	4	5		6
I. Villages in plain areas									
1.	Panukuvalasa	8	5	3	2	0	1	1	20
2.	Manapuram	7	4	4	3	1	1	0	20
3.	Pedduru	6	6	3	2	2	0	1	20
4.	Pedarama	5	7	4	2	1	1	0	20
5.	Valegedda	7	5	3	2	1	1	1	20
II. Villages in Interior areas:									
1.	Jayapuram	9	6	2	2	1	0	0	20
2.	Kusumur	11	7	1	1	0	0	0	20
3.	Talada	8	6	3	2	1	0	0	20
4.	Tadipai	10	6	2	1	1	0	0	20
5.	Pedapolla	10	5	3	1	0	1	0	20
	Total	81	57	28	18	8	5	3	200
		(40.5)	(28.50)	(14.0)	(9.0)	(4.0)	(2.50)	(1.50)	(100)

Note: The figures presented in the parenthesis are percentages to total.

households living in the interior villages. The scores of selected goods across villages are presented in the Table 6.

It is indicated that only 6.0 per cent of households were without any selected commodities and most of them belonged to the interior villages. In the group of 39.0 per cent who possessed one commodity the households in the interior villages were more in number. The other 26.0 per cent possessed two items, 13.0 per cent three items, 8.0 per cent four items, 4.0 per cent five items, 2.5 per cent possessed six items, 0.5 per cent with seven item and 1.0 per cent household are possessed with a maximum of 8 selected commodities. Among these households the households, living in the villages in plain areas were more in number.

Table 6. Distribution of Households by Score of Expenditure on Selected Goods across Villages

S. No.	Tribes	No. of selected goods possessed								Total	
		0	1	2	3	4	5	6	7		8
I. Villages in plain areas											
1.	Panukuvalasa	-	6	6	3	2	1	1	-	1	20
2.	Manapuram	-	6	4	4	4	1	1	-	-	20
3.	Pedduru	-	7	5	3	2	1	1	1	-	20
4.	Pedarama	-	9	6	3	1	1	-	-	-	20
5.	Valegedda	-	8	4	3	2	1	1	-	1	20
II. Villages in Interior areas											
1.	Jayapuram	-	8	6	4	1	1	-	-	-	20
2.	Kusumur	4	10	4	1	1	-	-	-	-	20
3.	Talada	2	9	6	1	1	-	1	-	-	20
4.	Tadipai	6	8	5	1	-	-	-	-	-	20
5.	Pedapolla	-	7	6	3	2	2	-	-	-	20
	Total	12	78	52	26	16	8	5	1	2	200
		(6.0)	(39.0)	(26.0)	(13.0)	(8.0)	(4.0)	(2.5)	(0.5)	(1.0)	(100.00)

Note: The figures presented in the parenthesis are percentages to total.

Incidence of poverty in the study area

The poverty line signifies a minimum level of consumption-expenditure, below which the household is considered poor. Sufficient care has been taken to account for the value of consumption of own produce in the data on expenditure alternatively. The state of 'poverty' may be defined in relation to nutrition and, thus, the extent of undernutrition can be measured based on a nutritional norm. It is argued that the poverty line should be related to basic needs; the basic food need has to be defined in relation to a nutritional norm or some other 'commodities norm' that can divide the population into poor and non-poor. Thus, it does appear as though some link between nutritional norm and poverty cut-off is inevitable. In spite of this observation, it must be stated that results based on nutritional norms and income poverty cut-off should not be mixed up. For instance, consider the results that can be obtained on the incidence of poverty with reference to an income/expenditure cut-off set to reflect a minimum nutrition norm (Say, the consumption of 2100 Cal per head per day). The incidence of under nutrition may differ widely for the simple reason that people who are not poor by the income/expenditure criterion may be poor on the calorie criterion. People may have the purchasing power but either because of habit, ignorance or sheer choice, they may not be poor compared to those who are undernourished due to lack of purchasing power or due to some other disability. The information pertaining to the per capita calorie intake of the selected households across villages is presented in Table 7.

The extent of calories depends largely upon households' consumption of cereals. Across the households belonging to different category of villages, the households in the villages in plain areas showed that they generated around 1130-1150 calories per capita per day by consuming rice. In the same villages in plain areas, the consumption of edible oil, Ragi, and other varieties of food grains seemed to be high, thereby generating more calories. From the

available information relating to the socioeconomic indicators and calorie intake of the households of different villages, the selected 10 villages were grouped into two. The villages located on roadside plain areas were viewed as relatively better placed villages in case of calories intake and the villages in the interior areas treated as relatively poor placed villages in case of calories intake.

In this context, the per capita calorie intake of food consumed by the households in the different villages reveal that the calorie intake of food was recorded very high among the households belonging to villages in plain areas. On the other hand, the calorie intake of the households living in the relatively interior villages recorded lower extent of calorie intake. The data also revealed that the households living in the interior villages received more calories only through rice, Ragi, and meat. They were not able to acquire high calories from the consumption of pulses, vegetables and edible oils.

The extent of incidence of poverty in different selected villages following the norm of 2100 calories and 2400 calories is presented in Tables 8 and 9. It can be noticed that the incidence of poverty as seen from nutrition norms reveals that the nutrition norms chosen were 2400 and 2100 calories. They were used to estimate the incidence of poverty. Calories were derived using the nutrition conversion table. For each household in each of the 10 villages, per capita consumption of various items was noted separately. These were converted into calories by using the nutrition conversion tables. Calories derived for each of the 20 households were aggregated and divided by the total number of households. The results are shown in Tables 8 and 9.

It may be seen from Table 8 that at the level of all households, the major proportion of calories was acquired from consumption of cereals. Among the other items of consumption, vegetable oils were prominent in providing more calories. The calories noted for all the 10 villages were found to be lower than the conventional required norms. This is because the households were not able to

Table 7. Village-wise Per Capita Calorie Intake of Food

S. No	Village	Rice	Ragi	Meat	Pulses	Vegetable	Edible oil	Other varieties of food grain	Total
I. Villages in plain areas									
1.	Panukuvalasa	1225	210	49	80	69	182	135	1950
2.	Manapuram	1020	115	41	65	56	160	105	1562
3.	Pedduru	1030	145	45	90	60	198	110	1678
4.	Pedarama	928	120	30	85	55	125	96	1439
5.	Valegedda	1196	134	39	98	77	190	95	1829
II. Villages in Interior areas									
1.	Jayapuram	1005	110	48	70	55	165	69	1522
2.	Kusumur	955	119	39	69	50	155	95	1482
3.	Talada	965	98	40	55	45	160	55	1418
4.	Tadipai	942	140	36	52	55	110	85	1420
5.	Pedapolla	980	125	45	67	50	170	98	1535
	All Villages	10246	1316	412	731	572	1615	943	15835
		(64.70)	(8.31)	(2.60)	(4.12)	(3.61)	(10.10)	(7.01)	(100.00)

Note: Figures in brackets refer to percentages.

provide quantitative data relating to certain consumption items like meat which was not purchased by them. From Table 8 it can be noticed that among the households of the villages in the plain areas, 44 per cent of them were not able to fulfill the 2100calories norm and 33 per cent were able to fulfill the 2100 calories norm, but not the 2400 calories norm. Only 23 per cent of households were able to fulfill the nutritional norm of 2400 calories.

Table 8. Incidence of Poverty based on Nutrition Norm of 2100 Calories and 2400 Calories among the Households in the Villages in Plain Areas

S. No.	Village	No. of Household below 2100 calories norm		No. of Household below 2400 calories	
		Incidence of poverty 2100 calories norm for person	Percentage of Household below 2100 calories norm	Incidence of poverty 2400 calories norm for person	Percentage of Household below 2400 calories norm
1.	Panukuvalasa	9	45	7	80
2.	Manapuram	10	50	6	80
3.	Pedduru	9	45	6	75
4.	Pedarama	7	35	8	75
5.	Valegedda	9	45	6	75
	All Plain Villages	44		33	

From Table 9 a very precarious picture among the households of the villages in the interior areas is noticed. Around 74 per cent of them were not able to fulfill 2100 Calories norm and 16 per cent not able to fulfill the 2400 calories norm. Among the households of interior areas, only 10 per cent were able to fulfill the 2400 calories norm. As a whole the percentage of the households by using the norm of 2400 calories and 2100 calories to measure under nutrition.

As a whole, analysis reveals that except in the villages in plain areas, all the households belonging to the interior villages were found 2400 calories norm. Even the norm of 2100 calories, a large majority of households in the interior villages (more than 85%) fell below the norm. Particularly in the interior villages of Talada and Tadipai, all the selected households were in under nutrition category. It is evident from the field data that deficiency in the diet taken by the tribals exists with

Table 9. Incidence of Poverty based on Nutrition Norm of 2100 Calories and 2400 Calories among the Households in the Villages in Interior Areas

S. No.	Village	No. of Household below 2100 calories norm		No. of Household below 2400 calories	
		Incidence of poverty 2100 calories norm for person	Percentage of Household below 2100 calories norm	Incidence of poverty 2400 calories norm for person	Percentage of Household below 2400 calories norm
1.	Jayapuram	12	60	4	80
2.	Kusumur	13	65	4	85
3.	Talada	17	85	3	100
4.	Tadipai	18	90	2	100
5.	Pedapolla	14	70	3	85
	All Interior Villages	74		16	

regard to almost all selected commodities. The deficiency with regard to the cereal consumption was relatively less compared to other items. Further, the deficiency is very high in case of commodities like oils, mutton and chicken. Across tribes the situation was very alarming. Almost all households had deficiency of a higher order with regard to all the chosen items. However, the deficiency on food items was less in the case of households in the villages in plain areas rather than households in the interior villages. This situation calls for immediate attention of the government to intensify the delivery system of public distribution (PDS) in the interior villages of the tribal areas with a view to provide food security and support to the tribal people.

Realizing the need to provide essential commodities like rice, kerosene oil, Palmolive, wheat, sugar besides other daily requirements, the Girijan Co-Operative Corporation (GCC) has opened a number of daily requirement depots exclusively for the purpose of tribals in the state. All the essential commodities are supplied at the subsidized prices as fixed by the Government of Andhra Pradesh. Other goods of daily requirements are supplied at reasonable prices fixed by GCC and its regional and divisional offices. The tribal households are given white/pink ration cards depending upon the estimated annual household income. [The field data reveals that all the selected households had ration cards; among

them 86.25 per cent were white cards holders and only 3.75 per cent were pink card holders. In the field survey majority of the households expressed their satisfaction over the functioning of public distribution system in the study area.

An attempt was also made to adopt the income norm to measure poverty of the households. The poverty line for the income norm is estimated by using Consumer Price Index for Agricultural Labour (CPIAL). The poverty line estimated by the expert committee for 2000-01 prices was taken into account. The information relating to head count ratio of the households in the interior and plain villages revealed that among the households in the interior areas, 77 per cent were below the per capita expenditure norm and only 23 per cent registered above the norm of percapita total expenditure. At current prices the poverty head count ratio varied from 35 per cent to 95 per cent across selected villages. The income poverty seems to be less than poverty as measure by undernutrition norm. These variations are related to socio-economic characteristics of the selected households, both in the villages in interior and plain areas.

Conclusions

The pattern of consumption expenditure of tribal households at tribe level reveals that the

selected Jatapu households spend a higher proportion of their incomes on food items than nonfood items. However, the income and expenditure relationship examined across different income groups indicates a decline in the share of food expenditure as the income increases indicating an inverse relationship between per capita income and share of food expenditure. This was more or less noticed in all the villages. Also, it was observed that the households living in the roadside plain villages spend proportionately less amount of money on food items while the households living in the interior villages spend relatively more on food items. Further, more than half of the food expenditure of these households was found to be on the consumption of cereals, while it was on non-cereal items in case of households living in the villages in the plain areas. Among the food items, the expenditure on cereals decreased while the expenditure on other food items like edible oils, vegetables increased with an increase in income.

Regarding the expenditure on non-food items, the relatively lower income groups, particularly those living in the interior villages, spent more on tobacco and pan, intoxicants, festivals and ceremonies and fuel and light. On other hand, households in the villages in plain and roadside areas spent more on clothing, health, education, cosmetics, travel, and consumer durables. It is evident from the analysis relating to the expenditure on selected 10 commodities which represent modernity and change in the consumption patterns among the households, that only 3.73 per cent households did not utilize any one out of the ten commodities. The households in the villages in plain and roadside areas used relatively more number of commodities than the households in the interior areas. It may be observed that the responsiveness to modernity in terms of households' expenditure on selected goods was more pronounced among the households living in the plain and roadside villages.

The extent of incidence of poverty in different selected villages, following the norm of 2100 calories and 2400 calories, was

estimated. To estimate the incidence of poverty, calories are derived using the nutrition conversion table. For each household in each of the 10 villages, per capita consumption of various items was noted separately. These were converted into calories using the nutrition conversion tables. Calories derived for each of the 20 households were aggregated and divided by the total number of households. It was indicated that the major proportion of calories were acquired from consumption of cereals. Among the other items of consumption vegetable oils are prominent item in providing more extent of calories. The calories noted for all the 10 villages are found to be lower than the conventional required norms. This is because the households are not able to provide quantitative data relating to certain consumption items like meat which are not purchased by them.

Among the households of the villages in the plain areas 44 per cent of them are not able to fulfill 2100calories norm and 33 per cent are able to fulfill the 2100 calories norm but they are not able to fulfill the 2400 calories norm. Only 23 per cent of households are able to fulfill the nutritional norm of 2400 calories. Similarly among the households of the villages in the interior areas we can notice very precarious picture. Around 74 per cent of them are not able to fulfill 2100calories norm and 16 per cent are not able to fulfill the 2400 calories norm. Among the households of interior areas only 10 per cent are able to fulfill the 2400 calories norm. As a whole the percentage of the households by using the norm of 2400 calories and 2100 calories to measure under nutrition. Except in few of the first five of the villages in plain areas, all the households belonging to the interior villages are found with below the calorie of 2400 calories. Even the norm of 2100 calories, a large majority of households in the interior villages (more than 85 per cent) fall below the norm. Particularly in the interior villages of Talada and Tadipai all the selected households are with under nutrition. It is evident from the field data that, deficiency in the diet taken by

the tribals exists with regard to almost all selected commodities. The deficiency with regard to the cereal consumption is relatively less compared to other items. Further, the deficiency is very high in case of commodities like oils, mutton and chicken. Across tribes the situation is very alarming. Almost all households have deficiency of a higher order with regard to all the chosen items. However, the deficiency on food items is less in the case of households in the villages in plain areas rather than households living in the interior villages. This situation calls for immediate attention of the Government to intensify the delivery system of public distribution (PDS) in the interior villages of the tribal areas with a view to provide food security and support to the tribal people.

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indicate that among the households in the plain areas 36 per cent are below the per capita expenditure norm and 64 per cent registered above per capita total expenditure. Among the households in the interior areas 77 per cent are below the per capita expenditure norm and only 23 per cent registered above per capita total expenditure. At current prices the poverty Head Count Ratio varies from 35 per cent to 95 per cent across selected villages. The income poverty seems to be less than poverty as measure by under nutrition norm. These variations are related to socio-economic characteristics of the selected households both in the villages in interior and plain areas.

From the analysis of the incidence of poverty it is noticed that there is widespread poverty among the selected Jatapu tribal households. The results of the study ultimately reveal that the levels of living seem to be better among the households in the villages which are on the roadside plain areas rather than the households living in the interior villages.

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