



Research Paper

Level of income in different mandals of Nellore district

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ABSTRACT : The findings of the study indicated that there were differences in the average incomes of households in different mandals and among various caste groups. But the disparities in average incomes among caste groups were found to be more as compared to that of mandals. However, the differences in both were not statistically significant.

KEY WORDS : Level of income, Human development, Spatial variations

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INTRODUCTION

The term "Human development" has come to be accepted in the development economics literature as an expansion of human capabilities, a widening of choices, an enhancement of freedoms and a fulfillment of human-rights. Rising incomes and expanding outputs, in the human development framework are seen as the means and not the ends of development. Indeed, defining peoples well-being as the end of development and treating economic growth as a means have been central messages of the Annual Human Development Reports being published since 1990.

Human development is a comprehensive term encompassing the levels of income, education and health conditions of members of households (Srinivasan, 1994). There may be spatial variations even within a district, say among different mandals or villages depending upon several factors. Apart from this, in a stratified society like India, these indicators may not be found on equal footing for all social groups like Scheduled tribes (STs), Scheduled castes (SCs), Backward classes (BCs), and Other caste groups (OCs). Hence, there is a need to analyse levels of income, education and health conditions and other human development variables in different mandals of Nellore district as well as among different caste-groups.

MATERIALS AND METHODS

Data sources :

The study was based both on secondary and primary

sources of data. The major sources of secondary data were the Annual Human Development Reports published by the UNDP since 1990. Besides, data were also collected from various World Development Reports published by the World Bank, Economic Surveys published by the Government of India, Reserve Bank of India Annual Reports, Human Development Report published by the Planning Commission. Government of India and the Human Development Reports published by various state governments in India. Nevertheless, as the available secondary data were not adequate to fulfill the objectives of the study, the present investigation predominantly depended on the primary data collected from the sample households in Nellore district of Andhra Pradesh.

Sample selection :

Multi-stage random sampling technique was used in the present study to select sample households in various villages of Nellore district.

- There are three revenue divisions viz., Gudur, Kavali and Nellore in Nellore district.
- Twelve mandals at the rate of four mandals from each revenue division were selected using Simple Random Sampling Without Replacement (SRSWOR).
- From each Mandal, two villages were chosen again using SRSWOR.
- Thirteen households were selected from the first village and 12 households were selected from the second village.
- Thus, the total sample size was 25 households X 12

mandals = 300 households for the district.

- Specially designed and pre-tested interview schedules were used to elicit information from the sample households.

RESULTS AND DATA ANALYSIS

The results of the present study as well as relevant discussions have been presented under following sub heads:

Distribution of households according to levels of household income :

Income is an important indicator of levels of living in any country. The income levels determine the consumption levels and consequently the welfare levels of households. In fact income is an important means to get many other ends of human life. Table 1 furnishes the information on the distribution of all households among different income levels in different mandals of Nellore district. As could be observed from the table, among 300 sample households in Nellore district, 85 households constituting more than 28 per cent of households were found to be below the income level of Rs.20,000/- per annum at current market prices. In fact, the highest number of 101 out of 300 households (33.67 per cent) was getting annual income between Rs.20,000/- and Rs.40,000/- per annum. Another 50 households (or 16.67 per cent) were found to be earning income between Rs.40,000/- and Rs.60,000/-. Thus, more than three-fourth of (236 or 78.7 per cent) households were found to earning income below the level of Rs.60,000/- per annum. Only 24 households (8.00 per cent) were above the income level of Rs.1,00,000/- per

annum.

There were also noticeable variations in the distribution of households among different income categories in different mandals of Nellore district. The low-income households, *i.e.*, below the income level of Rs.20, 000/- per annum were found to be in largest number in Rapur mandal (17) followed by in Vakadu (14), Alluru (13) and Podalakuru (12). The relatively poor households in the income range between Rs 20,000/- and Rs.40, 000/- were found to be very high in the drought prone mandals of Udayagiri (14), Jaladanki (13), Venkatagiri (12), Podalakuru (10) and Marripadu (9). On the other hand, the rich households above the income levels of Rs.1, 00,000/- were very high in the developed delta mandal of Alluru (6). Similarly, in Nellore mandal in the high-income range of Rs.80, 000/- to Rs.1, 00,000/- there were five households. Thus, as revealed by the data development and income by and large, had positive relationship even when analysed at the disaggregate level.

Households other than those belonging to Scheduled tribe (ST), Scheduled caste (SC), and Backward classes (BC) are known as households belonging to Other caste-group (OC) households. Due to historical and socio-political reasons these households were relatively better off in terms of economic and social status. Table 2 incorporates the information on the distribution of OC households among different income groups in various Mandals of Nellore district.

As could be observed from Table 2 that out of 70 sample OC households in Nellore district, the highest number of 22 households (31.43 per cent) was found to be in the income range of Rs.20,000 to Rs.40,000 followed by 15 households in the income group of Rs.40,000 to Rs.60,000. There were 7

Table 1: Distribution of all households according to the level of annual household income in different Mandals

Sr. No.	Name of the Mandal	Income levels of the households						Total
		Below Rs.20,000	Rs.20,000 to Rs.40,000	Rs.40,000 to Rs.60,000	Rs.60,000 to Rs.80,000	Rs.80,000 to Rs.1,00,000	Above Rs.1,00,000	
1.	D.V.Satram	7	9	6	2	-	1	25
2.	Guduru	7	5	6	2	2	3	25
3.	Venkatagiri	-	12	8	2	-	3	25
4.	Vakadu	14	6	2	1	-	2	25
5.	Jaladanki	4	13	2		2	4	25
6.	Udayagiri	7	14	3	1	-	-	25
7.	Marripadu		9	9	3	2	2	25
8.	Alluru	13	5	-		1	6	25
9.	Rapur	17	7	-		1	-	25
10.	Podalakuru	12	10	1	2	-	-	25
11.	A.S.Peta	4	8	7	5	1	-	25
12.	Nellore	-	3	6	8	5	3	25
	Total	85	101	50	26	14	24	300
	%	28.33	33.67	16.67	8.67	4.67	8.00	100.0

Source : Field survey

Note: The character – indicates that there was no household in the corresponding income group

Table 2 : Distribution of OC households according to the level of annual household income in different Mandals

Sr. No.	Name of the Mandal	Income levels of the households					Total	
		Below Rs.20,000	Rs.20,000 to Rs.40,000	Rs.40,000 to Rs.60,000	Rs.60,000 to Rs.80,000	Rs.80,000 to Rs.1,00,000		Above Rs.1,00,000
1.	D.V.Satram		2	2			1	5
2.	Guduru		1	4		1		6
3.	Venkatagiri		2	1				3
4.	Vakadu	1	2				2	5
5.	Jaladanki		1			1	3	5
6.	Udayagiri	1	1	1				3
7.	Marripadu			4	3	2	2	11
8.	Alluru	1						1
9.	Rapur		2			1		3
10.	Podalakuru	4	6		2			12
11.	A.S.Peta		5	2	1			8
12.	Nellore			1	2	3	2	8
	Total	7	22	15	8	8	10	70
	%	10.00	31.43	21.43	11.43	11.43	14.28	100.0

Source : Field survey

households constituting 10 per cent of total households below the income level of Rs.20,000/-. Thus more than 60 per cent of total households were getting income less than Rs.60,000 per annum. The low-income OC households have mostly concentrated in Podalakuru and A.S.Peta mandals. On the other hand, nearly 14 per cent of OC total households seemed to have been getting income more than Rs.1,00,000/-. Thus, there were more OC households in high-income brackets.

Table 3 provides the details of distribution of BC households in different income brackets in various mandals of Nellore district. As could be seen from the table, there was relatively more number

of BC households in low income brackets.

To be more specific, more than 79 per cent of total BC households were below the income level of Rs.60,000/- per annum, while the corresponding proportion of OC households was about 60 per cent. The low income BC households concentrated mostly in Podalakuru, Udayagiri, Venkatagiri, Marripadu and Jaladanki mandals. On the other hand, the number of BC households in high-income brackets was very low. There were only 15 or 11 per cent of BC households in high-income brackets above Rs.80,000/- while the corresponding figure for OC households was 26 per cent.

Table 3 : Distribution of BC households according to the level of annual household income in different Mandals

Sr. No.	Name of the Mandal	Income levels of the households					Total	
		Below Rs.20,000	Rs.20,000 to Rs.40,000	Rs.40,000 to Rs.60,000	Rs.60,000 to Rs.80,000	Rs.80,000 to Rs.1,00,000		Above Rs.1,00,000
1.	D.V.Satram	3	5		1			9
2.	Guduru	1	3	2	2	1	2	11
3.	Venkatagiri		10	7	2		3	22
4.	Vakadu							
5.	Jaladanki	2	8	1		1	1	13
6.	Udayagiri	3	12	2	1			18
7.	Marripadu		8	5				13
8.	Alluru	3	3			1	4	11
9.	Rapur	3	3					6
10.	Podalakuru	8	4	1				13
11.	A.S.Peta	4	2	5	3			14
12.	Nellore		2	4	4	1	1	12
	Total	27	58	27	13	4	11	142
	%	19.01	40.85	19.01	9.16	2.82	7.75	100

Source : Field survey

These data clearly indicate the difference in the economic levels between OC and BC households in Nellore district.

Another socially and economically backward caste group is SC. Table 4 incorporates the details of distribution of SC households in various income brackets in the sample mandals of Nellore district.

A cursory glance at the table clearly indicates that about three-fourth or 75 per cent of total SC households were getting income less than Rs.40,000/- per annum. They were mostly concentrated in Vakadu, Alluru and Rapur mandals of the district. On the other hand the rich SC households above the income level of Rs.1,00,000/- constituted only 5 per cent of total households. In fact, there were only 9 or 14 per cent of SC households above the income levels of Rs 60,000/- in the

district. These data clearly brought out the economic backwardness of SC households in Nellore district.

Table 5 contains the data on the distribution of ST households in various income classes in different mandals of Nellore district. It is pathetic to note from the table that 19 out of 25 ST households or about 76 per cent were getting income less than Rs.20, 000/- per annum.

Another 4 households (or 16 per cent) were getting income between Rs. 20,000 and Rs.40,000 per annum. These low-income ST households were concentrating in all the mandals of Nellore district except in Nellore mandal where one ST household was getting income in between Rs.60, 000/- and Rs.80, 000/-. It could be noted that no ST household was getting income more than Rs. 80, 000/- per annum. These statistics clearly brought out

Table 4 : Distribution of SC households according to the level of annual household Income in different Mandals

Sr. No.	Name of the Mandal	Income levels of the households					Total	
		Below Rs. 20, 000	Rs.20,000 to Rs.40,000	Rs.40,000 to Rs.60,000	Rs.60,000 to Rs.80,000	Rs.80,000 to Rs.1,00,000		Above Rs.1,00,000
1.	D.V.Satram		2	4	1		7	
2.	Guduru	3	2			1	6	
3.	Venkatagiri							
4.	Vakadu	10	4	2	1		17	
5.	Jaladanki		3	1			4	
6.	Udayagiri	2					2	
7.	Marripadu							
8.	Alluru	9	2			2	13	
9.	Rapur	8	2				10	
10.	Podalakuru							
11.	A.S.Peta				1	1	2	
12.	Nellore				1	1	2	
	Total	32	15	7	4	2	3	
	%	50.79	23.81	11.11	6.35	3.18	4.76	100

Source : Field survey

Table 5 : Distribution of ST households according to the level of annual household income in different Mandals

Sr. No.	Name of the Mandal	Income levels of the households					Total
		Below Rs.20,000	Rs.20,000 to Rs.40,000	Rs.40,000 to Rs.60,000	Rs.60,000 to Rs.80,000	Rs.80,000 to Rs.1,00,000	
1.	D.V.Satram	4					4
2.	Guduru	3					3
3.	Venkatagiri						
4.	Vakadu	3					3
5.	Jaladanki	2	1				3
6.	Udayagiri	1	1				2
7.	Marripadu		1				1
8.	Alluru						
9.	Rapur	6					6
10.	Podalakuru						
11.	A.S.Peta						
12.	Nellore		1	1	1		3
	Total	19	4	1	1		25
	%	76	16	4	4		100

Source : Field survey

the abysmally low level of income received by ST households in different mandals of Nellore district.

The disparities in the levels of income among different mandals and communities in various mandals of Nellore district are amply brought out by the statistics provided in the tables furnished above. The same is reiterated by the data on the average incomes of the households in different mandals. The relevant data are furnished in Table 6.

It could be seen from Table 6 that there were considerable variations in the average incomes of the households in different mandals of Nellore district. The average annual household income varied between a low of Rs.21, 625 in Rapur mandal to a high of Rs 69,576 in Jaladanki mandal. Rapur is relatively a

dry mandal where there are very few opportunities for earning income from business and agricultural activities. Hence, the average income was the lowest in this mandal. Jaladanki, though a non-delta mandal, is very close to one of the fast growing urban area *viz.*, Kavali. It is also relatively more developed in terms of agriculture due to canal irrigation thanks to flow of irrigation water through Kavali canal from Somasila project. Hence, the average household income was the highest in Jaladanki mandal even surpassing the district capital *viz.*, Nellore. Next to Jaladanki mandal, Nellore mandal of Nellore division recorded the highest average at Rs.66,781 followed by A. S. Peta mandal at Rs. 51,654. As expected the average incomes of households in drought prone mandal of Udayagiri

Table 6 : Distribution of average household income of different caste group households in the sample Mandals of Nellore district

Sr. No.	Name of the Mandal	OC average household income Rs.	BC average household income Rs.	SC average household income Rs.	ST average household income Rs.	Mandal average Rs.
1.	D.V.Satram	66000	26833	44857	11000	37173
2.	Guduru	49200	51800	37142	13000	37786
3.	Venkatagiri	35333	56000			45667
4.	Vakadu	52333		22018	12000	28784
5.	Jaladanki	193400	37538	33700	13667	69576
6.	Udayagiri	28000	28300	15000	19000	22575
7.	Marripadu	69727	32000		30000	43909
8.	Alluru	18000	74090	31692		41260
9.	Rapur	41667	17166	15000	12667	21625
10.	Podalakuru	32675	18846			25761
11.	A.S.Peta	37562	42400	75000		51654
12.	Nellore	82625	60833	75000	48667	66781
	Caste-group average	58876	40527.8	38823.22	20000	41046

Source : Field survey

Table 7 : ANOVA for average incomes of households in different Mandals of Nellore district

Source of variation	SS	df	MS	F	P-value	F crit
Between groups	10194569610	11	926779055.5	0.8801	0.569213	2.1512
Within groups	29487995226	28	1053142687			
Total	39682564836	39				

Source : Computed for the data presented in Table 6

Table 8 : ANOVA for average incomes of households among different caste groups

Source of variation	SS	df	MS	F	P-value	F crit
Between groups	7396216290	3	246540543	2.74898	0.056899	2.86626
Within groups	32286348546	36	896843015.			
Total	39682564836	39				

was the lower at Rs. 22,575. Households in Venkatagiri mandal particularly the BC households seemed to have been earning reasonable amount of income. Households in most of the mandals had annual income ranging between Rs.37, 000 and Rs.52,000.

The disparities in average income levels were also observed among different social groups *viz.*, OC, BC, SC and ST. The average income was the highest at Rs.58,876 for the OCs. The OC households particularly in Jaladanki mandal earned the highest level of income. This was followed by BCs with average income of Rs.40, 528, SCs with average household income of Rs.38, 823 and STs with average household income of Rs.20, 000/- per annum. Thus, the OC households could earn about 50 per cent more incomes than BCs and SCs and nearly three times more income than ST households.

The analysis of variance (ANOVA) carried out to test the significance of difference in the average incomes of households in different mandals, however, indicated that the differences were not statistically significant. As could be seen from Table 7, the calculated 'F'-value (0.880) was less than the F-critical value of 2.1512 at 5 per cent level.

It means that the apparent differences in the average incomes of households in different mandals might be due to fluctuations of sampling.

Similarly, the analysis of variance carried out to test the significance difference in the average incomes of different caste-group households also indicated that the found differences were not real and statistically significant. As could be observed from Table 8, the calculated F-value (2.7489) was less than the table F-value (2.866) at 5 per cent level of significance.

However, the p-value level at which the Null hypothesis (that there is no significant difference in the average incomes of different caste-group households) becomes significant and is very closed (0.057) to 0.05 or 5 per cent level.

It should be noted that the corresponding 'p' value when the average incomes in different mandals of Nellore district were analysed was very high at 0.569. It means that there existed real differences among different caste-groups in the average incomes when compared to that among different mandals in Nellore district even though both were not statistically significant.

Income distribution and levels :

The study indicated that majority of households accounting for about 62 per cent were getting income below the level of Rs.40, 000 per household per annum. Higher income households were distributed evenly above the income level of Rs. 60,000. There were also inter-mandal variations in the income levels. The caste group wise distribution of households in different income brackets revealed glaring inequalities in the distribution of income. The OC households were mostly concentrated in higher income brackets. About 60 per cent of

OC households were getting income above Rs.40,000 per annum while the corresponding proportions for BC, SC and ST households were 40 per cent, 25 per cent and 8 per cent, respectively. In other words, the ST, SC and BC households were concentrated mostly in lower income brackets. Thus, 92 per cent of STs, 75 per cent of SCs and 60 per cent of BCs were getting income less than Rs.40,000 per annum.

The disparities in income levels among different mandals and among different caste groups were amply clear from the average income levels in different mandals and among different caste groups. Irrigated mandals like Jaladanki (Rs 69,576), urbanized mandals like Nellore (Rs.66,781) recorded the highest levels of income while dry and arid mandals like Rapur recorded the lowest levels of income (Rs.21,625) in Nellore district. Thus, the range of variations in the average incomes (about Rs.40,000) of households in different mandals was very high in the district. Similar but more pronounced variations in the average incomes were observed among different caste groups in the mandal. While the OC households recorded as high as Rs.58, 876, the ST households on the average could get only Rs.20, 000 per annum. Thus, the variations among the three caste groups amounted to Rs.38, 876. The analysis of variance (ANOVA) technique employed to analyse the significance of differences in the average income levels of households in different mandals and among different caste groups though, indicated no statistically significant differences, the p value which indicates the level at which the Null hypothesis becomes true was very closed to 0.05 in the case of caste group differences. This clearly revealed that disparities in the income levels among different caste groups were potentially dangerous in the district.

Policy implications and suggestions :

Human development is a multi-faceted concept involving social, economic, political and legal dimensions. Hence, achievement of human development requires a multi-pronged approach. In the light of findings of the study, the following suggestions are made for effective implementation of the strategies to further advance the pace of human development in the district in particular and in the state in general :

- The study revealed the very low levels of incomes of the households in the district. The per capita income of the households per annum in some cases was less than Rs.8000/- per annum. Since, income is considered to be a proxy for many variables that influence human development, the first priority of the government should be to take efforts to augment the income levels of the households. In this context, apart from providing wage employment opportunities for the households, the strengthening the novel strategy of "Self-help" groups should be taken up on priority basis.
- Even the low levels of income earned by the individuals in the district were not equitably distributed among

various mandals in the three revenue divisions. The income levels of households in arid and dry mandals were very low compared to delta mandals. These spatial disparities in the distribution of income are to be corrected by focusing special attention on backward and dry mandals like Rapur, Udayagiri and D. V. Satram mandals in the district.

- The study also brought out the inter-caste group inequality in the distribution of incomes. In fact, the ANOVA and the regression analysis have reiterated the potential danger of these inequalities to become a serious issue. Hence, target group approach should be adopted to take measures to increase the income levels of ST, SC and BC households. Special focus should be made on ST households to improve their prevailing educational, income and health conditions.

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