

Employment, income and consumption pattern of tribals in Nashik, Maharashtra

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ABSTRACT

The present study was undertaken to examine the employment, income and consumption pattern of the sample tribal households from Igatpuri Tahsil of Nashik district of Maharashtra, where; the special category of tribals viz. Mahadeo koli and Thakar are predominant. The data for the agricultural year 2004-05 on relevant aspects of the study were obtained by personal interview with sample respondents with the help of a specially designed pretested schedule. The data collected were analysed by adopting tabular method and regression analysis. In estimated employment function, the regression coefficients of gross cropped area and number of earners were positive and highly significant. This indicated that the increase in gross cropped area by one hectare and addition of one earner would increase gross employment of tribal households by 27.45 days and 24.49 days, respectively. The selected four independent variables have jointly explained 78 per cent variation in the gross family employment. The gross cropped area in hectares, number of earners, capital assets excluding value of land, well and residential house, working capital and total annual employment were positive and highly significant. It indicated that the increase in these factors would result to boost the gross family income of the tribal households. The estimated family consumption function showed that regression coefficients of annual gross family income, family size and capital assets were positive and highly significant. It indicated that consumption expenditure was positively related with these three variables.

Key words : Employment, Income, Consumption, Tribals

INTRODUCTION

After fifty eight years of independence the development in economic, social, educational and political sectors generally visible, but the tribal community are far behind and unaware of these developments. The tribal communities are under the burden of poverty, illiteracy, superstitions and various addictions. They are slaves of old traditions and customs and this is a great hurdle in the way of their development. They are even not able to express their pains, sorrows and also their identities, feelings etc. which are under a prolonged dormancy.

Government has started various developmental programmes to bring tribals in the mainstream of life. The development activities involve education and economic development as means of livelihood. Unfortunately, both these means are not available to the aboriginal tribals for the simple reason that they are inhabitants of the hilly areas with no means of communication. This has resulted in continuation of their aboriginal habitat and also the traditional life. This leads to poor economic conditions. In addition, they face the problem of starvation during the lean season and even they do not have sufficient clothes to wear.

It is pointed out that the tribal agriculture is not able to provide sufficient employment to them. Alternative sources of employment opportunities besides agriculture are also scanty. As a result, it leads to a low level of income. The vicious circle of poverty and backwardness is closely associated with the unemployment and

underemployment prevailed in the tribal region.

The role of agriculture in the employment of rural population is of crucial importance. Developmental programmes of scientific agriculture with diversification could help in removing unemployment to some extent. Less availability of subsidiary occupations in tribal areas is one of the major causes of underemployment. Various secondary occupations viz., bee keeping, poultry, dairy, honey collection and rural industries etc. could also help in increasing their level of income. The unwillingness of tribals to move out and leave the pastoral surroundings for employment is also one of the hindrances in the development of tribals in the state. This limited employment and income opportunities to the tribal population have resulted into low standard of living.

The income level of tribal population is low and inadequate to meet their consumption needs. It compels them to live in the manner as their scanty income permits. They are living in hilly and forest areas and naturally doing hard work resulted into high nutritional requirements. It is very difficult for them to have nutritious and sufficient diet. They generally consume cheap and easily available food items like cereals and forest produce. In monsoon season, they may remain half starved for 2-3 months and try to compensate their needs by consuming roots and tubers from forest areas. Thus, the low level of income results its twin effect of mal-nourishment and under-nourishment, which ultimately reduces in their work efficiency. Since independence several tribal development programmes implemented in the country has helped to

improve upon their economy to some extent. The basic objective of the study was to examine the employment, income and consumption pattern of the sample tribal households.

MATERIALS AND METHODS

The study was confined to the Igatpuri tahsil of Nashik district which was purposively selected where; the special category of tribals viz., Mahadeo koli and Thakar are predominant. Six villages from the tribal area and five tribal households belonging to each size class of viz., landless, small (0.01 to 2.00 ha), medium (2.01 to 4.00 ha) and large (4.01 ha and above) were selected by simple randomization. The total sample comprised of 120 tribal households, 20 from each selected village, spread over Igatpuri tahsil of Nashik district. The data for the agricultural year 2004-05 on relevant aspects of the study were obtained by personal interview with sample respondents with the help of a specially designed pretested schedule. The data collected were analysed by adopting tabular method and regression analysis.

Employment function:

The multiple linear regression equation was used for estimating the employment function as under

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + \mu$$

where,
 Y = Gross family employment (Std. Days)
 a = intercept
 X1 = Gross cropped area (ha.)
 X2 = Number of earners
 X3 = Capital assets excluding value of land well and residential house (Rs.)
 X4 = Working capital (Rs.)
 bis = Regression coefficients of the respective explanatory variables,
 μ = Error term

Income function:

On the lines of employment function, the annual

gross family income function has also been estimated. The regression equation was used as under:

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + \mu$$

where,
 Y = Gross family income (Rs.)
 a = Intercept
 X1 = Gross cropped area (ha.)
 X2 = Number of earners
 X3 = Capital assets excluding value of land well and residential house (Rs.)
 X4 = Working capital (Rs.)
 X5 = Total annual employment (Std.days)
 bi's = Regression coefficients of the respective explanatory variables,
 μ = Error term

Consumption expenditure function:

The equation was used to estimate this function as under.

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + \mu$$

where,
 Y = Consumption expenditure (Rs.)
 a = intercept
 X1 = Gross family income (Rs.)
 X2 = Family size (Adult unit)
 X3 = Capital assets excluding value of land well and residential house (Rs.)
 b1 = regression coefficients of the respective explanatory variables,
 μ = Error term

RESULTS AND DISCUSSION

Employment function:

The results of the estimated employment function are presented in Table 1.

It is revealed from the table that all the four independent variables have jointly explained 78 per cent variation in total employment of sample tribal households at the overall level. The independent variables viz., gross

Table 1 : Results of estimated employment function for sample tribal households

Sr. No.	Size class	Constant	Regression coefficients				R2	F value
			X1	X2	X3	X4		
1.	Landless (N=30)	397.99	--	26.29**	0.0007 ^{NS}	0.031 ^{NS}	0.72	22.28***
2.	Small (N=30)	288.81	31.10***	55.24***	-0.003 ^{NS}	0.008*	0.68	18.42***
3.	Medium (N=30)	45.84	22.28**	42.00**	0.011*	0.0002 ^{NS}	0.72	22.28***
4.	Large (N=30)	470.83	25.90***	48.43**	0.004*	0.002 ^{NS}	0.76	27.53***
5.	Overall (N=30)	424.92	27.45***	24.49*	0.0023**	0.0007 ^{NS}	0.78	136.84***

*, ** and *** indicates significance of values at P=0.10, 0.05 and 0.01, respectively. NS= Non significant

cropped area (X1), number of earners (X2) and capital assets excluding value of land, well and residential house (X3) were positive and significant at 1 per cent, 10 per cent and 5 per cent, respectively indicating that the unit increase in the respective variable would increase the employment of tribal household respective regression coefficients at the overall level. The regression coefficient of working capital (X4) is positive but turned out to be non-significant except in small size class. The regression coefficient of gross cropped area in hectare (X1) is positive and highly significant at 1 per cent level in all farm size class and at overall level. The regression coefficients of number of earners (X2) and capital assets excluding value of land, well and residential house (X3) were positive and significant indicating the importance of variables in influencing the total employment except in landless size class. However, regression coefficient of capital assets excluding value of land, well and residential house (X3) in small size class was negative but it is turned out to be non significant. The values of the coefficient of multiple determination (R²) ranged in between 68 to 76 per cent. All the F values were significant indicate the goodness of fit for all the equations so far estimated (Kasar *et al.*, 1989; Lal *et al.*, 1984).

Income function:

The results of the estimated income function are presented in Table 2.

On critical examination of Table 2, it is revealed that, at overall level, the five independent variables have jointly explained 72 per cent of the total variation. The F Value

obtained from the analysis of variance turned to be highly significant, indicating there by overall significance of the estimated function. The regression coefficient of working capital (X4) turned out to be highly significant at 1 per cent level. The regression coefficients of total annual employment (X5), gross cropped area (X1) and number of earner (X2) were positive and significant indicating that these are the important income responsive variables.

Among the various size classes, the value of the coefficient of multiple determination (R²) ranged in between 62 to 77 per cent indicated that these independent variables have jointly explained 62 to 77 per cent variation in income of sample tribal households. The regression coefficients of number of earners (X2); working capital (X4) and total annual employment (X5) in landless size class, gross cropped area (X1); number of earners (X2) and total annual employment (X5) in small size class, gross cropped area (X1); number of earners (X2) and total annual employment (X5) in medium size class and gross cropped area (X1); number of earners (X2) and total annual employment (X5) in large size class were positive and significant indicating that these are the important income responsive variables (Kasar *et al.*, 1989; Lal *et al.*, 1984).

Family consumption expenditure function:

It is observed from the Table 3 that, at the overall level, the three independent variables have jointly explained 76 per cent of the total variation in consumption expenditure. The highly significant F value obtained from the analysis of variance indicated the goodness of fit of

Table 2 : Result of estimated income function for sample tribal households

Sr. No.	Size class	Constant	Regression coefficients					R ²	F value
			X1	X2	X3	X4	X5		
1.	Landless (N=30)	2215.8	---	994.01**	0.116 ^{NS}	6.92*	18.88**	0.62	10.61***
2.	Small (N=30)	20953.12	55.29**	1990.50*	0.07 ^{NS}	0.07 ^{NS}	26.22**	0.77	20.92***
3.	Medium (N=30)	40659.89	602.58*	2479.20**	0.16 ^{NS}	0.20 ^{NS}	19.27**	0.65	11.60***
4.	Large (N=30)	39073.26	363.75**	1998.18*	0.08 ^{NS}	0.19 ^{NS}	18.47***	0.69	13.91***
5.	Overall (N=30)	6078.62	388.17*	1578.98*	0.15*	1.14***	21.23**	0.72	74.07***

*, ** and *** indicates significance of values at P=0.10, 0.05 and 0.01, respectively. NS= Non significant

Table 3 : Result of estimated consumption expenditure function for tribal households

Sr. No.	Size class	Constant	Regression coefficients of independent variables			R ²	F value
			X1	X2	X3		
1.	Landless (N=30)	20916.89	0.79***	396.05*	0.37 ^{NS}	0.71	33.17***
2.	Small (N=30)	25173.4	0.50*	375.19**	0.18 ^{NS}	0.68	28.69***
3.	Medium (N=30)	44615.8	0.48**	659.67**	0.05 ^{NS}	0.70	31.53***
4.	Large (N=30)	68104.73	0.25**	599.74*	0.19 ^{NS}	0.69	30.05***
5.	Overall (N=30)	1080.92	0.99***	390.07*	0.12 ^{NS}	0.76	180.95***

*, ** and *** indicates significance of values at P=0.10, 0.05 and 0.01, respectively. NS= Non significant

the estimated function. The regression coefficients of total annual gross family income (X1) family size (X2) and value of capital assets (X3) were positive and significant, indicating that these are the important responsive variables for consumption expenditure. Amongst the different size classes of tribal households the above three variables have jointly explained 68 to 71 per cent variation in consumption expenditure. The regression coefficient of value of capital assets (X3) is positive but turned out to be non significant in all the categories tribal households. Annual gross family income (X1) was positive and significant in all the size classes of sample tribal households indicating that one rupee increase in gross family income would increase the consumption expenditure by the magnitude of regression coefficient of respective variable. The positive and significant regression coefficient of family size (X2) in all the size classes indicated that the consumption expenditure was influenced by family size (Khedkar, 2003; Khuspe *et al.*, 1980).

To conclude, it can be said that the consumption expenditure of the average tribal family is significantly influenced by the average annual gross family income and size of family.

Conclusions:

In estimated employment function, the regression coefficients of gross cropped area and number of earners were positive and highly significant. This indicated that the increase in gross cropped area by one hectare and addition of one earner would increase gross employment of tribal households by 27.45 days and 24.49 days, respectively. The selected four independent variables *viz.*,

gross cropped area, number of earners, capital assets and working capital in rupees have jointly explained 78 per cent variation in the gross family employment.

The gross cropped area in hectares, number of earners, capital assets excluding value of land well and residential house, working capital and total annual employment were positive and highly significant. It indicates that the increase in these factors would result to boost the gross family income of the tribal households.

The estimated family consumption function showed that regression coefficients of annual gross family income, family size and capital assets were positive and highly significant. It indicated that consumption expenditure was positively related with these three variables.

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