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Pattern of Investment, Income Distribution and Expenditure of Farm Labourers In Hill Farms

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The study was conducted at Nilgiris District, Tamil Nadu with the objectives to estimate the pattern of investment, income and expenditure. The result of the study showed that the average value of assets per house-holds is Rs. 1019 01 and investment on building was maximum constituting 70.17%, followed by investment in livestock constituting 23.06% to total investment The income earned from farm work was 87.99% and income from livestock ranking second.

In Tamil Nadu the agricultural labour force constitutes the largest single segment of the total working force. Research information is available on the income distribution and level of living of labour use in the plains. But the pattern of labour use in hill farms differs from that in other regions due to changes in the kind of crops grown, cultivation practices and other economic activities specific to topography and ecology of the area. Hence this study was taken up with the objectives ; (i) to study the pattern of investment of hill farm labourers, (ii) to evalute the standard of living of farm labour households in study area and (iii) to determine the income distribution among hill farm labourers.

MATERIAL AND METHODS

Nilgris District the hilly region of Tamil Nadu was selected for the study. The district consists of four blocks *viz.*, Ootacamund, Coonoor, Kotagiri and Gudalur. Two villages were selected by simple random sampling in each block and 30 landless agricultural labourers were randomly selected from each village for the study. Thus 120 landless agricultural labourers were contacted and data collected by personal enquiry. Gini Ratio estimation was employed to study the income distribution and percentage analysis was used to estimate consumption pattern. Gini ratio is equal to $\triangle/2\mu$ where $\triangle$ is the Ginimean difference and μ is arithmatic mean and the range of this ratio is from zero to one. A linear regression was fitted to predict the per capita consumption expenditure. The specified function is

$$C = a + by + \mu$$

where

C = per capita consumption expenditure in rupees,

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Y = per capita gross income in rupees,
a and b = parameters to be estimated, and
μ = regression error.

RESULTS AND DISCUSSION

Investment Pattern

The average asset value per household was Rs. 1019.01 (Table I). Of the total assets, 70.14% was invested on buildings and per household investment was very low. This is because 70% of the labourers are residing in free houses given by the land owners. The value of building is more in Coonoor block since only 40 per cent of the labourers are residing in free houses which are mostly provided by the land owners. The investment on livestock depends on the available spece in the houses. It is highest in Gudalur block (Rs. 373.33) in free accommodation, rearing livestock is not permitted. Hence the investment on livestock (in Ooty and Kotagiri) was less than in the other two blocks.

TABLE I. Investment pattern of sample labour households (1978-79)

Details	Value of Assets in Rs. per household				
	Ootacamund	Coonoor	Kotagiri	Gudalur	Whole district
Buildings	800.00 (78.41)	863.33 (69.50)	500.00 (74.09)	696.66 (61.01)	715.00 (70.17)
Livestock	156.67 (15.36)	306.66 (24.69)	106.66 (15.80)	373.33 (32.69)	235.00 (23.06)
Implements	32.46 (3.18)	58.06 (4.67)	50.56 (7.49)	52.13 (4.57)	48.30 (4.71)
Other assets	31.17 (3.05)	14.16 (1.14)	17.66 (2.62)	19.83 (1.73)	20.71 (2.03)
Total assets	1020.30 (100.00)	1242.21 (100.00)	674.88 (100.00)	1141.90 (100.00)	1019.01 (100.00)

(Figures in parenthesis indicate percentage to total)

Investments on implements and other assets are very low and accounted to 6.77 to total asset value. In general, the labourers do not have any implements of their own and usually it is supplied by land owners and they have only minor implements like hand hoe, stickle and buckets.

TABLE II Income per households (1978-79)

Details	Oota-camund	Coonoor	Kotagiri	Gudalur	Whole district
From farm work	2292.13 (88.94)	2653.70 (84.01)	3745.66 (94.81)	2134.63 (81.57)	2706.70 (87.99)
From non-farm work	73.33 (2.84)	140.00 (4.43)	100.00 (2.53)	163 33 (6.25)	119.16 (3.87)
From livestock	211.67 (8.21)	365.00 (11.56)	105.00 (2.66)	319.00 (12.18)	250.16 (8.14)
Total income	2577.83 (100.00)	3158.70 (100.00)	3950.66 (100.00)	2616.96 (100.00)	3076.02 (100.00)

(Figures in parentheses indicate percentage to total)

Total annual income per labour household was estimated at Rs. 3076.02 of which Rs. 2706.70 (87.99 of total income) was from agricultural farm work (Table II). In Kotagiri block, income from farm work was greater Rs.(3745.66) Income from livestock ranked second (Rs. 250.16), which was 8.14 of total income. The share of livestock income was high in Coonoor block (Rs. 365.00) and less in Kotagiri block (Rs. 105.00). Income from livestock was limited by housing facilities available to maintain livestock.

Income distribution was measured by Gini Ratio and the ratio for distribution of income in Ootcamund block is 0.22 against the ratios 0.20, 0.10 and 0.18 in Coonoor, Kotagiri and Gudalur block respectively. The inequality in income distribution of families was highest in Ootacamund bolck and lowest in Gudalur block.

Expenditure Pattern

To study the pattern of expenditure, total expenses were divided into broad components such as food, clothings, education, medical, recreation, social and religious and other items The mean per capita tatal expenditure was Rs. 2728.85 per annum (Table III). The expenditure on food was Rs. 1840.58 (67.45% of the total expenditure) and there was not much variation among the blocks. The mean expenditure on clothing was Rs. 321.47 and it was more in Ootacamund followed by Coonoor and Kotagiri blocks.

TABLE III Consumption Expenditure per Household (1978-79)

Details	Oota-camund	Coonoor	Kotagiri	Gudalur	Whole district
Food	1779.60 (67.26)	1786.50 (64.33)	1941.50 (68.03)	1854.73 (70.28)	1840.58 (67.45)
Clothings	388.67 (14.69)	365.83 (13.17)	368.83 (12.92)	162.56 (6.16)	321.47 (11.78)
Education	49.50 (1.87)	64 43 (2.32)	46.66 (1.64)	30.33 (1.15)	47.73 (1.75)
Medical	58.33 (2.20)	103.15 (3.71)	126.33 (4.43)	90.20 (3.42)	94.20 (3.45)
Recreation	127.50 (4.82)	133.66 (4.81)	104 66 (3.67)	220.00 (8.34)	146.46 (5 37)
Social and religious	211.67 (8.00)	275 00 (9.90)	214.16 (7.50)	256.00 (9.70)	239.21 (8.77)
Others	30.67 (1.16)	48.32 (1.76)	51.66 (1.81)	25.33 (0.96)	39.00 (1.43)
Total Expenditure	2645.94 (100.00)	2776.89 (100.00)	2853.80 (100 00)	2639.15 (100.00)	2728.85 (100.00)

(Figures in parentheses indicate percentage to total)

The expenditure on clothing was low in Gudalur block due to warmer climate in this block. The expenditure on social and religious functions was 8.77% ranking third, next to clothing

TABLE IV: Income expenditure and saving in sample households (Rs.) (1978-79)

Details	Oota-camund	Coonoor	Kotagiri	Gudalur	Whole district
Per household					
Income	2577.83	3158.70	3950.66	2616.96	3076.02
Expenditure	2645.94	2776.89	2853.80	2739.15	2718.85
Saving	−68.11	381.81	1096.86	−122.19	347.17
Per Labourer					
Income	522.88	572.22	714.40	467.37	570.69
Expenditure	536.70	503.05	516.05	489.13	506.28
Saving	- 13.82	69.17	198.35	−21:82	64.40

(NB: A negative value for savings would imply dis-saving)

The overall saving was estimated to Rs. 347.17 for the district and it was maximum in Kotagiri block (Rs.1096.86) followed by Coonoor block. In Ootacamund and Gudalur block the labour household dissave to the extent of Rs. 68.11 and Rs. 122.19 respectively. Per capita saving of the region was estimated to be Rs. 64.40 in a year.

Functional Analysis

A set of linear functions were fitted for four blocks with per capita income as the independent variable and the per capita consumption expenditure as the dependent variable.

(i) Ootacamund

$$\hat{Y} = 795,3247 + 0.4078\ X_1^{**}$$
$$(0.0407$$
$$n = 30 \qquad R^2 = 0.79$$

(ii) Coonoor

$$\hat{Y} = 1066.9894 + 0.2268^{**}X_1$$
$$n = 30 \qquad R^2 = 0.49$$

(iii) Kotagiri

$$\hat{Y} = 2073.7804 + 0.0127^{**}X_1$$
$$(0.0065)$$
$$n = 30 \qquad R^2 = 0.38$$

(iv) Gudalur

$$\hat{Y} = 1471.0842 + 0.4909^{**}X_1$$
$$(0.1647)$$
$$n = 30 \qquad R^2 = 0.49$$

The regression coefficient of X_1 indicated the marginal propensity to consumption (MPC). The MPC estimated for different blocks would imply that one rupee increase in the per capita income would lead to an increase by Re. 0 41, Re. 0.22, Re. 0,01 and Re. 0.49 in consumption in Ootacamund, Coonoor, Kotagiri and Gudalur respectively. The coefficient of determinations (R^2) expressed the percentage of variation that could be explained by independent variables. Estimated MPC appears to be small for a developing economy like the one in Nilgiris district. To be specific MPC=0.41 in Ootacamund block would imply the marginal propensity to save is 0.59 i.e. 59 paise of every rupee additionally earned is saved, This is not realistic as most of the sample households report meagre savings or dissavings. Therefore the estimate, eventhough they satisfy statistical tests of significance, does not meet the *a priori* expectations. Probable reasons may be the small number of observations or errors in variables or both. Therefore the results must be further tested before use elsewhere.