



RURAL LIVELIHOOD STRATEGIES AND THE FIVE CAPITALS: A COMPARATIVE STUDY OF SELECT VILLAGES IN TAMIL NADU

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ABSTRACT

Rural households in developing countries face several livelihood risks. In their struggle to achieve a secure livelihood, households try to cope with and even to mitigate or prevent such risks. Whether they succeed in this struggle or not is so decisive of the sustainability or vulnerability of their very livelihood. This paper attempts to assess the livelihood strategies adopted and the five capital assets of the rural households in select villages of Udumalpet Taluk of Tiruppur District in Tamil Nadu. A sample of 148 from Chinnakumarapalayam and 202 from Ganapathipalayam were selected at random using a structured questionnaire. Of the five asset pentagon, human capital was the least owned asset and physical capital the highly accessed asset in both the sample villages. Among the three popularly adopted livelihood strategies, the farming strategy was the most endowed in terms of assets. The weakest livelihood strategy as regards asset endowment was the off-farm livelihood strategy followed closely by the non-farm strategy.

On the determinants of livelihood outcomes, the OLS regression results show that household incomes were positively influenced by family size and farm size in Chinnakumarapalayam and the alternate livelihood strategies in Ganapathipalayam village. The influence by variables like social group and alternate livelihood in Chinnakumarapalayam and caste, marital status and farm size was negative but significant. This revealed that the farming and off-farming strategies in Chinnakumarapalayam and non-farm strategy in Ganapathipalayam improved the livelihood outcomes. The general conclusion of this paper is that adopting livelihood diversification would be a positive step and an antidote to the rural people in general and the poor in particular.

KEYWORDS: Rural households, Livelihood, Human Capital, income, Farmers,

INTRODUCTION

The shift in occupational pattern from the primary sector to the secondary and tertiary sectors or a shift in the origination of income from agriculture to industry and the tertiary sector is considered to be a natural process of economic development (Sujithkumar,

2007). Livelihood diversification is the process by which households construct a diverse portfolio of activities and social support capabilities for survival and in order to improve their standard of living. It is an infinitely heterogeneous process differentiated in its causes and effects (Ellis, 1998).

Rural households are increasingly engaging in a diverse set of activities to generate income. Rural households get livelihoods through agriculture; others through rural labour market and self employment in rural non-farm economy; and through migrating to towns and cities. Very few people collect all their income from any one source, hold all their wealth in the form of any single asset, or use their assets in just one activity which makes diversification the norm (Barrett et al., 2005). Livelihood diversification can be seen as an attempt by individuals and households to find 121 new ways to raise incomes and reduce environmental risk (Haggblade et al. 2007).

Livelihood diversification may include both on- and off-farm activities undertaken to generate additional income to that from the main household agricultural activities. Households may diversify through the production of other agricultural and non-agricultural goods and services, sale of waged labour, or self-employment in addition to other strategies undertaken to spread risk. On-farm diversification means “maintenance of a diverse spread of crop and livestock production activities that interlock with each other in various ways” (Ellis, 2000). A conventional example is a mixed cropping or intercropping, which refers to growing two or more crops on the same piece of land to “take advantages of complementarities between crops in their use of soil nutrients, sunlight and other resources” (Ellis, 2000).

Whether they succeed in this struggle or not is so crucial that it determines the sustainability or vulnerability of their very livelihood. A livelihood system could be sustainable if and only if it can cope with and recover from the risks and maintain or enhance its capabilities and assets without undermining the natural resource base. As such, case studies of such livelihood struggles by rural people in the wake of varying risks to their livelihood, contributes significantly to the understanding and making of sustainable rural livelihoods. Hence, an attempt has been made by the researcher to assess the livelihood strategies adopted and the five capital assets of the rural households in select villages of Udumalpet Taluk of Tiruppur District in Tamil Nadu.

OBJECTIVES

The objectives of the study are:

1. To assess the livelihoods as indicated by select indicators of five capital viz., Human Capital, Physical Capital, Social Capital, Financial Capital and Natural Capital.
2. To examine the socio-economic and demographic characteristics that determine the livelihood outcome of households as expressed by the income generated.

METHODOLOGY

Brief Description of Study Area:-

The study was carried out in two villages of Udumalpet Taluk of Tiruppur District in Tamil Nadu. Udumalai also known as Udumalaipettai is the headquarters of Udumalaipettai Taluk of the Tiruppur district in the Indian state of Tamil Nadu which was earlier under Coimbatore district. The Amaravathi River, flowing east of Udumalpet bifurcates Udumalpet and Palani Taluks. Thirumoorthy reservoir is another important water source in the area. The topography is undulated and general slope is from west to North. Black clay soil is the predominant soil of the area. Two agro-climatically different villages in Udumalpet Taluk – Chinnakumarapalayam and Ganapathipalayam have been selected as sample for the study. Chinnakumarapalayam from Kurichikottai block is situated 12 kilometres south of Udumalpet and Ganapathipalayam from Udumalpet block lies 5.7 kilometres west of Udumalpet town. The former is agro-climatically well placed area while the latter which lies in proximity to the town is water insufficient area and prone to drought situations.

Chinnakumarapalayam village has a total area of 493.925 hectares with a total population of 2454 with 1178 males, 1276 females in 775 households. To strengthen biodiversity conservation as well as undertaking tree planting outside the forest areas to increase tree cover, Tamil Nadu Forest Department implemented a Japan International Cooperation Agency assisted externally aided project named “Tamil Nadu Biodiversity Conservation and Greening Project”. Ganapathipalayam village covering an area of 590.865 hectares holds a population of 3200 with 1520 males and 1680 females.

Research Design:-

This study is descriptive and exploratory in nature. With the descriptive design, the researcher plans to gain more information about a phenomenon by examining the characteristics of a specific single population. Exploratory study would provide an in-depth exploration of a single process.

Sampling Design:-

Rural household groups were classified into two main groups on the basis of their involvement in farming activities, namely: a. Farm households, and b. Non-farm households. Other classification included: 1. Farmers, who owned farm land, and 2. Agricultural or Off-Farm labourers. In each village around 20 per cent of the households has been selected for the study through purposive random and convenience sampling. The sample selection in the selected villages of Chinnakumarapalayam and Ganapathipalayam is shown in the table below.

Table 1 Distribution of Population and Sample of the Respondents

| Villages | Total Population | Total Households | Sample Size |
|---------------------|------------------|------------------|-------------|
| Chinnakumarapalayam | 2454 | 775 | 148 |
| Ganapathipalayam | 3200 | 1067 | 202 |

Methods of Data Collection:-

This study is based on primary data to study the livelihood strategies adopted in rural households. The primary data were collected from June to August 2015 from the sample households using a structured interview schedule. Secondary data was gathered from various sources like the village Panchayat office, Taluk office and internet sources.

Data Collection Instruments:-

A structured interview schedule was prepared containing open and closed questions. The interview schedule solicited data about the following information: age, religion, caste, sex, marital status, educational qualification, number of house hold members, length of residence in the village, individual occupation, primary occupation, secondary occupation, financial assets, type of house, livestock, farming activity, non farming activity, human capital, physical capital, financial capital, social and natural capital. Data was gathered by the researcher personally.

Methods of Data Analysis:-

Initially, all collected data were carefully entered in Excel, and exported to SPSS/windows version 20.0. After processing, and indexing of the necessary and relevant variables, statistical analysis was performed for drawing

inferences. Both descriptive and analytical methods were employed in order to analyze the data. These included: frequency distribution, cross tabulations and percentages. Statistical tests like independent sample t-test and regression were used in this study.

Measuring the Assets of Rural Households:-

The asset pentagon was used in the study to estimate the resource (assets) endowments of rural households. The pentagonal radar is drawn using estimated asset indices from the five livelihood assets. The radar can be drawn using Excel.

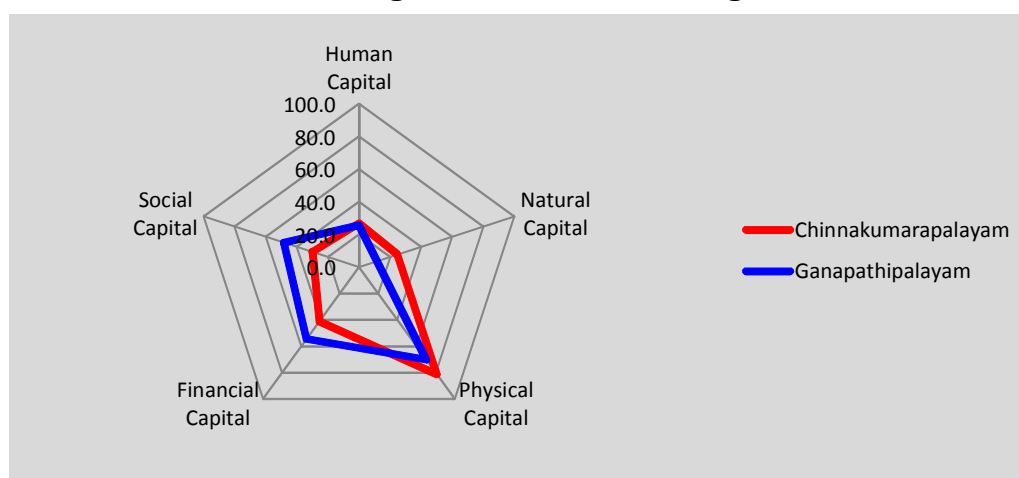
The shape of the pentagon can be used to show schematically the variation in household's access to assets. The idea is that the centre point of the pentagon, where the lines meet, represents zero access to assets while the outer perimeter represents maximum access to assets. On this basis different shaped pentagons can be drawn for different livelihood strategies (DFID, 2000).

Asset indices were developed for the pantheon of assets for each adopted livelihood strategy. Thus each livelihood strategy had a common asset index for the five capital assets (Human, Natural, Financial, Physical and Social). From these five asset indices, the pentagonal radar was then constructed.

DISCUSSIONS

Status of Livelihood Capital Assets:-

Asset Pentagon for the Selected Villages



Capital assets were generally higher in Ganapathipalayam than Chinnakumarapalayam, with access to financial and social assets considerably better than natural assets. The access to human and physical assets is almost similar in both the villages, while there is reasonable access to physical asset and the human capital reflects poor accessibility.

- ❖ The human capital which is closer to the centre shows that its access is the least in Chinnakumarapalayam village for all the livelihood strategies adopted. Social capital access is better for all the categories. Physical capital was relatively the most owned asset by all the communities considering its positioning away from the centre of the pentagonal radar.
- ❖ In Ganapathipalayam village, the access to physical and social assets seems to be almost similar for all the livelihood strategies. Access to the key indicators of financial assets, physical assets and natural assets by the farming category is found to be reasonable. For those who have taken off-farming as their livelihood, natural capital and human capital are extremely low as shown by the radar near zero. The financial and natural capital assets were found relatively lower for the non-farm category.

- ❖ Capital assets were generally higher in Ganapathipalayam than Chinnakumarapalayam, with access to financial and social assets considerably better than natural assets. The access to human and physical assets is almost similar in both the villages, while there is reasonable access to physical asset and the human capital reflects poor accessibility.

DETERMINANTS OF LIVELIHOOD OUTCOME

This study investigated the determinants of income to explore the basic sources of welfare of rural households. It examined what characteristics of rural households were associated in determining the real income. The ordinary least square (OLS) regression estimation technique is used to establish relationships between income, the livelihood outcome and various household characteristics. It considered both economic and non-economic characteristics of rural households to identify determinants of household income. The regression results showing the relationship between the socio-economic characteristics of the households on income is presented in Table 2.

Table 2 Determinants of Rural Household Income (Dependent variable: Logarithm of Household Income)

| Model | Chinnakumarapalayam | | | Ganapathipalayam | | |
|------------------------|--|------------|-----------|--|------------|-----------|
| | B | Std. Error | t | B | Std. Error | T |
| (Constant) | 11.250 | 1.035 | 10.873*** | 13.577 | 1.177 | 11.536*** |
| Gender | -.093 | .338 | -.334 | -.212 | .364 | -1.130 |
| Age | .045 | .003 | .599 | -.061 | .004 | -.813 |
| Social Group | -.145 | .035 | -1.942* | -.136 | .065 | -1.923* |
| Marital Status | -.053 | .350 | -.190 | -.337 | .377 | -1.756* |
| Education | .010 | .029 | .142 | -.119 | .044 | -1.748* |
| Family Size | .462 | .049 | 3.268** | .065 | .073 | .635 |
| Farm Size in Acres | .464 | .005 | 6.617*** | -.305 | .017 | -3.848*** |
| Alternative Livelihood | -.403 | .024 | -1.861* | .139 | .035 | 1.684* |
| | R ² = .398 Adjusted R ² = .354 F-ratio = 9.047 P-value = .000 | | | R ² = .253 Adjusted R ² = .214 F-ratio = 6.481 P-value = .000 | | |

Note: *** Significant at 1%; ** Significant at 5%; * Significant at 10% level

- ❖ The socio-economic factors explain a significant amount of the variance in the household incomes in both the villages (Chinnakumarapalayam - F = 9.047, p = .000, R² = .398, Adjusted R² = .354; Ganapathipalayam - F = 6.481, p = .000, R² = .253, Adjusted R² = .214).
- ❖ The values of R² indicate that the variation in household income to the extent of 39.8 per cent in Chinnakumarapalayam and 25.3 per cent in Ganapathipalayam could be explained by the socio-economic characteristics of the respondents while the remaining percentage was due to other factors not specified in the model.



- ❖ Household incomes were positively influenced by family size and farm size in Chinnakumarapalayam and by adoption of alternate livelihood strategies in Ganapathipalayam. There was significant negative influence of variables like social group and alternate livelihood in Chinnakumarapalayam and caste, marital status, education and farm size in Ganapathipalayam.

SUGGESTIONS AND RECOMMENDATION

Based on the findings of the research the following recommendations are made:

- ❖ To overcome the general lack of human assets like skill training and education in the villages, the researcher recommends the provision of training to help, build and enhance their managerial, vocational and entrepreneurial skills to secure good livelihood.
- ❖ It is evident from the analysis of livelihood outcomes and livelihood assets that land continues to be the most important asset determining livelihood outcomes to which the people in the area had minimal access. The fallow lands of the government may be given for collective farming by these poor people.
- ❖ The Agriculture University may guide the marginal and small farmers in improving their productivity of land by taking up fruitful ventures.
- ❖ Farm and non-farm economic activities may be promoted among rural households to accelerate income improvement.
- ❖ The provision of water facility and electricity facility may be enhanced so as to increase employment in off-farm sector which improve the income among poor households.
- ❖ Women may be encouraged to participate more intensely in non-farm activities to support the household.

CONCLUSION

The result of this study has revealed that farmers' involvement in livelihood diversification activities is as a result of the need to increase households' income portfolio, improve the standard of living, cope up with seasonal uncertainties and to maintain livelihood. human capital was the least owned asset and physical capital the highly accessed asset in both the sample villages. Among the three popularly adopted livelihood strategies, the farming strategy was the most endowed in terms of assets. The weakest livelihood strategy as regards asset endowment

was the off-farm livelihood strategy followed closely by the non-farm strategy. The farming and off-farming strategies in Chinnakumarapalayam and non-farm strategy in Ganapathipalayam improved the livelihood outcomes. Based on the findings of the study, it is recommended that rural households should be given opportunity to participate in varied income generating activities in both agriculture and nonagricultural ventures and rural development programmes which would enhance their livelihood diversification activities and living standard be initiated and encouraged.

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