LIVELIHOOD DIVERSIFICATION OF THE FARMERS IN THE NOYYAL RIVER BASIN VILLAGES IN TIRUPUR DISTRICT

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Abstract

Livelihood diversification strategies play an important part in development process. The aim of this study is to make out the determinants of livelihood diversification strategies at farmers. The data were collected from four villages of Tirupur District, Tamilnadu through personal interview using structured questionnaire from 134 sample respondents. The results obtained from descriptive statistics are, 67.8% of rural households combined on-farm activities with off farm and non-farm activities. The livelihood assets vary n all the four villages. Within the villages, capital assets were higher in Kathanganni, with access to human, financial and physical assets considerably better than natural or social assets. Natural assets were poor in all four villages; because of farm activity participation is low due to industrial effluent polluted groundwater. In terms human assets was greater in Kathanganni (73.88%) and Kodumanal (73.32%) followed by Anaipalayam (67.54%), and Nallur (65.49). Social assets were high (54-67%) in all villages. People in each village were satisfied with their access to help from their neighbors amongst other social organizations. Expectations of the farmers and new innovation in cooperative farming and facilitating credit availability and enhancing elders' knowledge awareness on farming activities should be implemented to rehabilitate the affected farm households.

Keywords: Livelihood determinants, Tirupur, Strategies, diversification, Farmers

I. Introduction

Livelihood diversification refers to an important strategy taking place at different levels of the economy, which are usually, but not always directly linked (Start, 2001). It may be considered as a approach for risk management for farm households (Dercon, 2002; Ellis, 1998; Reardon, Start & Johnson, 2004). Some also defined farm household diversification as income strategies of

rural individuals or households in which they expand their number of activities, regardless of the location or sector (Loison & Loison, 2016; Saha & Bahal, 2012). It is mentioned that rural people construct their livelihoods via three main strategies: agricultural intensification, livelihood diversification, and migration (Barrett, Reardon, & Webb, 2001).

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). Thus, diversification is considered to be a movement to a better state than the existing one. Livelihood diversification as an individual or household level strategy does not fit well into the conventional picture. Diversification may be a strategy for survival or accumulation (Hart, 1994). 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).

In India, 56 per cent of the economically active population and their dependents rely on agriculture for their livelihoods. Although share of agriculture in GDP is low, the share of agriculture in employment is high (Mahendra Dev, 2011).Livelihood diversification is a dynamic phenomena taking place in rural areas and thus needs more attention from policy makers. It is gaining renewed importance for rural population seeking sufficient livelihood under limitations of traditional farming and increasing cash needs. The concept implies a process of dynamic change and constant adaptation. 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 (Haggablade et al. 2007).

Livelihood diversification would include both on- and off-farm activities undertaken to generate income additional 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).

2. Methodology

2.1 Description of the study area:

Tirupur city is a district of the Indian state Tamil Nadu, formed in February 2009. Tirupur is the administrative headquarters of Tirupur district and the fifth largest urban agglomeration in Tamil Nadu. It is situated at the Centre of the South Indian Peninsula, about 450 kilometers (280 mi) southwest of the state capital Chennai and about 50 kilometers (31 mi) east of Coimbatore.

The study area has number of bleaching and dyeing units which generate basic environmental issues. In these areas agriculture was affected to a great extent. The respondents in this area started moving for their farm livelihood to various industries situated nearby. So, the present study selected few villages in downstream of Tirupur districts.

2.2 Sample Design and Data Collection

In Tirupur district 20 villages located near upstream and downstream within the Tirupur district are affected by effluents discharged from bleaching, dyeing and printing units of the city which could further be classified into small (410 units), medium (61 units), and large (19 units). Farm respondents were grouped into only one main category on the basis of their involvement in livelihood activities, namely On-Farm household. Other classification included: On-farm, On-farm and off-farm, on-farm and non-farm and on-farm, off-farm and non-farm activities.

This study is based on primary data to study the livelihood strategies adopted in rural households. The primary sources are collected through interview using structured questionnaire. The primary data were collected from the respondents using a structured interview schedule. Secondary data was gathered from various sources like the village office, Regional office, Statistical department and internet sources.

2.3 Method of Data Analysis

The study employed descriptive statistics and analytical methods to analyze the data. These included: frequency distribution, cross tabulations and chart analysis. Analytical techniques have been utilized to investigate relationships between the variables and compare the difference between groups of participants and significant differences/association among them. In addition chi-square tests were used to analyze the significant relation between the variables and compare

and contrast households in different livelihood categories with respect to the desired characteristics.

3. RESULTS AND DISCUSSION

3.1 Sources of Livelihood

The main source of livelihood is agriculture. Due to water pollution the farmers started changing their agricultural activities to other non-farm activities. The below table explains about the source of livelihood of the respondents.

Table 3.1 – Source of Livelihood of the Respondents

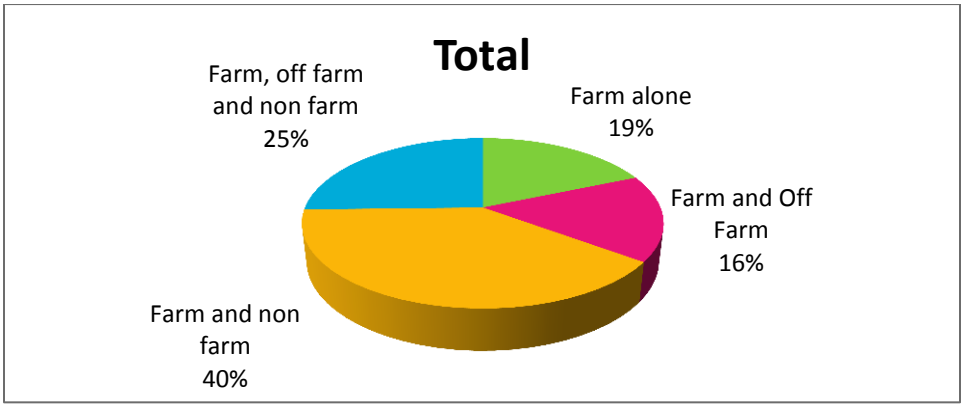
Source of Livelihood	Anaipalayam	Kathanganni	Kodumanal	Nallur	Total
Farm alone	3 (9)	10 (26)	7 (22)	5 (16)	25 (19)
Farm and Off Farm	7 (22)	3 (8)	8 (25)	4 (12)	22 (16)
Farm and non farm	10 (31)	16 (42)	11 (34)	16 (50)	53 (40)
All three activities	12 (38)	9 (24)	6 (19)	7 (22)	34 (25)
Total	32 (24)	38 (28)	32 (24)	32 (24)	134

Source: Computed from field survey (2018)

The sources of livelihood pattern of the respondents are presented in the above table. On an average, 40 per cent of the respondents involved in farm and non-farm activities followed by twenty five per cent dependent on farm, off-farm and non-farm activities, nineteen per cent on farm alone and sixteen per cent on farm and off-farm activities.

In the sample villages, half of the respondents depend on farm and non-farm in Nallur followed by forty two percent in Kathanganni, thirty-four percent in Kodumanal and thirty-one percent in Anaipalayam. In Kodumanal, twenty-five percent depend on farm and off-farm activities.

Pie Chart 1 – Sources of Livelihood of the Respondents



3.2 Livelihood Diversification of Farmers

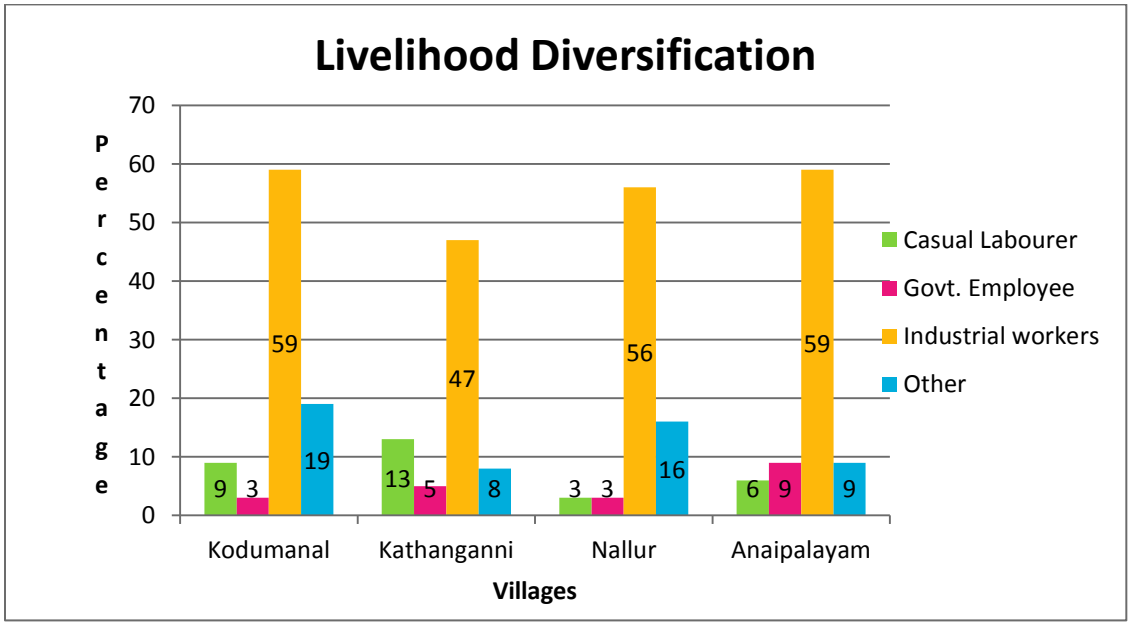
Rural households have access to both tangible and intangible assets that allow them to meet their needs. It is important to note that livelihood security is dependent on a sustainable combination of each of these resources and in some cases one is prerequisite to others, as which are interlinked. So, people require a range of assets to achieve positive livelihood outcomes (Scoones, 1998). Different combinations and components of capital assets are required for rural people to engage in income activities. The presence or absence of various components of capital assets can facilitate or hinder, respectively, the likelihood of success.

Table 3. 2 - Livelihood Diversification of farmers

Livelihood diverzificatin	Kodumanal	Kathanganni	Nallur	Anaipalayam	Total
Casual Labourer	3 (9)	5 (13)	1 (3)	2 (6)	11 (8)
Govt. Employee	1 (3)	2 (5)	1 (3)	3 (9)	7 (5)
Industrial workers	19 (59)	18 (47)	18 (56)	19 (59)	74 (55)
Other	6 (19)	3 (8)	5 (16)	3 (9)	17 (13)
Farm Alone	3 (9)	10 (26)	7 (22)	5 (16)	25 (19)
Total	**32(24)**	**38(28)**	**32(24)**	**32(24)**	**134(100)**

Source: Computed from field survey (2018)

Chart 3.1 – Type of Alternative Occupation



This section attempts to profile the livelihood diversifications of the studied population by looking into their human capital, natural capital, physical capital, financial capital and social capital. In

analyzing these capitals, we have used the social and gender location of the studied population as grids of analysis. The following table summarises the aspects analyzed for each capital.

It is depicted from the table and chart that, , each 59 per cent in Kodumanal and Anaipalayam, 56 per cent in Nallur and 47 per cent in Kathanganni were respectively to work in various capacities from cashier to the supervisor's to labourers in Knitting and its allied industries; oil refinery, and other mills. Totally, 20 per cent of the respondents have their own business like textile units, bleaching and dyeing units, oil refinery, rice mills etc.

3.3 Livelihood capital assets

Livelihood Assets	Anaipalayam	Kathanganni	Kodumanal	Nallur	Total
Natural Capital	48.49	51.48	50.60	50.88	50.76
Physical Capital	55.04	50.82	51.79	59.11	54.19
Human capital	67.54	73.88	73.32	65.49	62.32
Financial Capital	59.85	67.34	61.70	54.72	69.77
Social Capital	61.69	66.42	59.70	57.21	61.26
Livelihood capital asset	58.522	61.99	59.42	57.48	59.66

Radar chart 1 - livelihood Capital assets of four villages

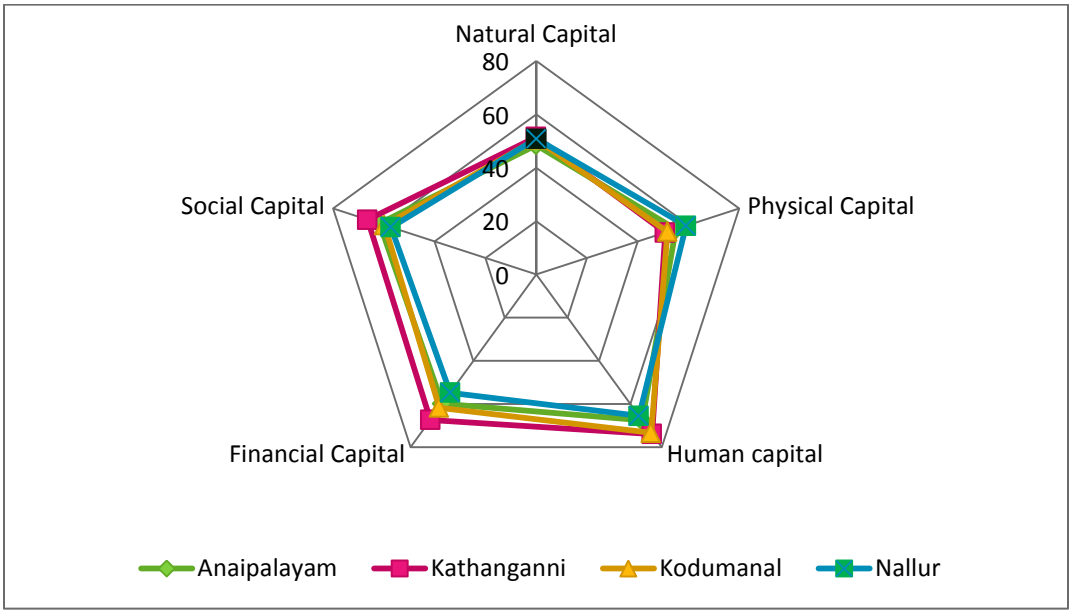


Table depicts the livelihood capital asset contribution in five villages. The differences were marked by observing within and between villages, in particular between the four villages which are spatially affect by industrial effluent polluted groundwater. Within the villages, capital

assets were generally higher in Kathanganni, with access to human, financial and physical assets considerably better than natural or social assets. Natural assets were poor in all four villages; because of farm activity participation is low due to industrial effluent released into farm land and its changes in groundwater, which was also exceptional in terms of access to natural assets. In terms of spatial variation, access to human assets was greater in Kathanganni (73.88%) and Kodumanal (73.32%) followed by Anaipalayam (67.54%), and Nallur (65.49). Social assets were high (54-67%) in all villages. People in each village were satisfied with their access to help from their neighbors amongst other social organizations.

4. Conclusion and Recommendations

The research examined the livelihood determinants adapted by the farmers in the study area. The findings of the study indicate that 22 per cent were on-farm and nonfarm holders, 25 per cent were having on-farm activities, 21 per cent depend on on-farm and off-farm holders in the study area. Generally majority of the respondents (68 %) were combining on-farm Activities with off-farm and non-farm activities to achieve their livelihood goals.

The result shows that the livelihood asset of the respondents in four villages varies. The contribution of natural capital is 50.76 per cent, physical capital 54.19 per cent, human capital 62.32 per cent, financial capital 69.77 and social capital 61.26 percent. The total capital contribution of each villages are 58.52 per cent, 61.99 per cent, 59.42, 57.48 per cent and 59.66 per cent respectively.

The findings based on the policies and action directed towards improving livelihood of the households in the study area focus on:

1. Enhancing farm households' knowledge and access to off-farm and non-farm employment opportunities.
2. Several innovative water reuse technologies have been used in foreign countries, such kind of techniques can be introduced by the concert authority at subsidiary rates to the farmers. Low cost treatment method can be introduced.
3. The Government of Tamilnadu and TNAU combined together take steps to rehabilitate the agricultural activities of farmers and agricultural labourers; it can reduce migration of labourers to non-farm activities.

4. Enhancing elder households' awareness to ensure availability and propagation of precise information as it helps them to exaggerate farming rather than diversifying their activity into off-farm and non-farm activities.
5. Finally, intervention should focus on improving access to off-farm and non-farm opportunities, awareness creation, *etc.*, for those households who have large family size.

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