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Shift in Livelihood Strategies of Tribesfolk: An Inter-community Examination in Attappady, Kerala, India

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Abstract: Shift in livelihood strategies is considered as one of the most remarkable characteristics of rural livelihoods. Such diversification in livelihood strategies enables rural households to have better incomes, greater food security and increase agricultural production. In this paper we attempt to understand the shift in livelihood strategies of tribesfolk as consequence of massive influx of people from plain land coupled by development oriented programmes. The external intervention in the form of in-migration has alienated tribesfolk from their ancestral lands. The process of land transfers from the tribesfolk to settlers continued unabated till most tribesfolk were reduced to the status of landless wage labourers. Tribesfolk were pushed out in the process to the steepest parts of the area. The agricultural practice of the tribesfolk has undergone drastic changes from shifting cultivation to an array of crop combination practices. However, these changes could not improve the living condition of tribesfolk as they lack technical and financial support to enhance the productivity of their crops. Inaccessibility to various resources have resulted intercommunity disparity among the tribesfolk. Very little of the huge amounts of money spent on various development activities in the form of concessions and assistance, had reached the intended beneficiaries. Leakage and pilferage from the development schemes defeat their very objective.

Key Words: livelihood, alienation, degradation, resource access, tribesfolk

1. INTRODUCTION

Development activities for uplifting vulnerable sections of the society, especially tribesfolk in sensitive areas, have undergone spectacular changes since independence. Quite different from those of the outside world, the livelihood settings of the forest dwellers are influenced by a variety of factors, which are part of their own traditional, social, economic, and cultural structure. Over the years, in consequence of the development capsules administered to them by outside agencies, and massive influx of people to these areas from the plain land, considerable changes have taken place in their land utilisation pattern and livelihood

settings. Empirical studies consistently show that diversification in livelihood strategies enables rural households to have better incomes, greater food security and increase agricultural production (Barrett *et al.*, 2000). However, Land alienation, changes in occupational structure and cropping pattern, forest destruction, etc., are characteristic features of the change caused by the implementation of planned development programmes on the one hand and unplanned settlement process of in-migrant non-tribesfolk, on the other. Economic positions of tribesfolk have relatively deteriorated in the unplanned settlement process (Velluva, 2000).

Tribesfolk of Attappady are the most backward among the vulnerable groups of Kerala. Their economy is traditional in nature, depending mainly on land and forest. The valley was not open to outsiders till the 1950s. However, the land utilisation pattern of Attappady drastically changed since then owing to massive in-migration of people from the plains to these areas in search of land for cultivation and for starting plantations. The non-tribesfolk, from Tamil Nadu and from the rest of Kerala, who entered into these areas, adopted the own cropping systems they had been practising in the plains. Introduction of different styles of farming to the area unknown to its original inhabitants distorted and ruined the low-technology of agriculture of the indigenous people. A wide variety of cropping systems emerged displacing indigenous cultivation. The in-migrants from the low land who were culturally and technologically more advanced than the natives overpowered and dispossessed them. As a result many tribal households lost their land before the 'land hunt' strategy of non-tribesfolk.

Traditional tribal cultivation lost its significance due to the introduction of new crops and new techniques of production. Development-oriented programmes were neither conceived of nor formulated with a view to protecting the traditional tribal way of life; nor were they capable of meeting the emerging requirements and countering the challenges posed to the tribal way of life by in-roads from outsiders. In practice, most of the development programmes hardly succeeded in improving the livelihood strategies of tribesfolk. More than 50 percent of the tribesfolk now work in the lands appropriated by the settlers from outside, in the capacity of wage labourers. Also, in many instances, planned development activities were over-powered by the wayward activities of the settlers. Inappropriate implementation of schemes and lack of adequate technological support resulted in a drastic decline in the productivity of tribesfolk's crops. In consequence, the tribal way of subsistence cultivation stands ruined at least in part. Also many tribal households became landless agricultural labourers; even those with some land could not produce from it the bare minimum required for their sustenance. Lack of adequate support, inappropriate implementation of development plans, pilferage of funds and exploitation have often been as the reasons for the stagnation of tribal economy of Attappady.

Much study is not available on the livelihood diversification of tribesfolk caused by external intervention and development oriented involvements. Most of the existing studies on livelihood diversification in rural background consider it as remarkable characteristics of rural livelihoods. And it is considered as 'the process by which rural families construct a diverse portfolio of activities and social support capabilities in order to survive and to improve their standards of living' (Ellis, 1998). However, in Attappady, in the land hunt strategy of greedy settlers the position of tribesfolk has deteriorated and it ruined their traditional livelihood strategies and settings. Present study attempts a holistic examination of the impact of massive influx of settlers on the one hand and developmental activities on the other in changing the livelihood strategies of tribesfolk in an environmentally and ecologically sensitive tribal belt of Kerala.

2. MATERIALS AND METHOD

2.1. Study area

The study is conducted in Attappady, one of the backward tribal areas of Kerala, India. The area is known also for a surfeit of development activities mostly superfluous. The plight of tribesfolk continues to be steeped in the morass of ignorance, illiteracy, and poverty. The area is a unique tribe settlement with a multi faceted peculiarities viz., 1. existence of three indigenous mountain tribes – *Irulas*, *Mudugas*, and *Kurumbas*; 2. the area lies on the margins of tracts of economic development in Kerala; 3. most of the in-migrant population are of recent origins – *Malayalis* from other part of Kerala and *Tamilians* from outside Kerala. 4. settlers now occupy the major proportion of the total area cultivated with a wide variety of crops.

Attappady is an extensive mountain valley of about 731 sq. km in area, lying at Western Ghat ranges. It is located in the mid-eastern part of Kerala on the north-east of Palakkad district, adjoining Coimbatore and Nilgiri districts of Tamil Nadu. It forms almost the eastern half of Mannarkad taluk and is separated from the rest of the taluk by a hump like, steep mountain range. At the northern and eastern boundaries of the area are Nilgiri and Coimbatore districts. Attappady is bordered by Palakkad taluk in the South and Karimba and Pottessery and Mannarkad revenue villages of Mannarkad taluk and Ernad taluk of Malappuram district in the West (GOK, 1976). Administratively the Attappady Development Block consists of the three Panchayats of *Agali*, *Pudur*, and *Sholayur* in Palakkad district.

2.2. Source of data

The data on which this paper is based were both primary and secondary sources. The secondary sources include Integrated Tribal Development Programme (ITDP) and AHADS of Attappady; Census Reports; KIRTADS (Kerala Institute for Research, Training and Development Studies of Scheduled Castes and Tribes). The study, however, primarily relies on data gathered through a field-level investigation. Primary data were collected also from social workers, old settlers, politicians, journalists, and *ooru* (tribal hamlet) *moopans* (leaders). Participant observations and interviews have also been major tools used for data collection. A detailed interview schedule was used for collecting socio-economic information from sample households.

For selecting the sample households, stratified sampling method was employed using tribal category, namely, Irula, Kurumba and Muduga as strata (Scheaffer *et al.* 1986). In order to select the sample households, list of hamlet available in the Integrated Tribal Development Project Office, Agali was used. To allocate the sample among the strata, proportionate stratification was used. That is, for making the strata sample sizes proportional to the strata population size, a uniform sampling fraction was used. If N_i and n_i are the population size and sample size for the i^{th} stratum, the uniform fraction (f) is given by

$$f = n_i/N_i = n/N \quad (1)$$

Where $n = \sum_i n_i$ is the whole sample size; and $N = \sum_i N_i$ is the total population in all strata. From the above equation the i^{th} stratum sample size (n_i) is given by,

$$n_i = (N_i/N) n \quad (2)$$

One advantage of proportionate stratification is that it simplifies the formula for estimating the population mean of any variable. To see this, let Y_i denote the sample mean for the simple random sample

selected from stratum i , n_i the sample size for stratum i , μ_i the population mean for stratum i . An unbiased estimator of the population mean μ is given by

$$Y_{st} = (1/N) \sum_i n_i Y_i \quad (3)$$

where Y_i is an unbiased estimator of the population mean for stratum i .

Using equation 1, equation 3 can be simplified to:

$$\begin{aligned} Y_{st} &= (1/n) \sum_i n_i Y_i \\ &= (1/n) \sum_i \sum_j Y_{ij} \quad i = 1, \dots, m; j = 1, \dots, n_i \end{aligned} \quad (4)$$

Where,

$$Y_i = (1/n_i) \sum_j Y_{ij}; \quad i = 1, \dots, m; j = 1, \dots, n_i \quad (5)$$

Equation 4 establishes that proportionate stratification reduces the “stratified” estimator of the population mean to the “simple” sample mean.

Using the above procedure, 250 households were selected from Pudur *panchayat* of Attappady block. Pudur panchayat is selected for the final sample allotment with a view to getting representation for all the three communities.

2.3. Local human population

The population of Attappady consists of tribesfolk and non-tribesfolk. Non-tribesfolk consists of malayalis and tamilians, popularly called in vernacular language *vanthavarasis* (settlers). The non-tribal population consists of migrants from Tamil Nadu, mainly in the eastern low lying part; migrants from Kerala are seen mainly in the western regions. Important cultural differences exist among the three indigenous mountain tribes and the two groups of people who have come from outside the area and settled here since the 1950s. Three major tribal communities in the area, namely, Irulas, Mudugas, and Kurumbas, were the aboriginals of the region. Among them, Kurumbas were less exposed to, and have suffered less from, the incursions of plainsmen into Attappady, especially during the initial stages, than the other tribes. All the tribal communities are listed as Scheduled Tribes. Tribal settlements in Attappady are known as *Ooru* (hamlet). Each *ooru* contains, on an average, 50 houses constructed in rows, close to one another. As of now there are 189 hamlets in the region. Numerically, Irulas form the largest tribal community (82.25 percent) followed by Mudugas (12.53 percent), and Kurumbas (5.22 percent).

3. HOUSEHOLD CHARACTERISTICS BY TRIBESFOLK

Comparative profiles of the status of the tribesfolk in the study panchayat are, presented at the outset. Interestingly, the average family size of tribesfolk is found to be relatively small, only 4.2 members. The small family size may be attributed, in part, to allotment of houses to them through government-sponsored programmes and the resultant emergence of the nuclear family among them. The government-sponsored houses, however, have served as a major motivation for tribesfolk to acquire independent houses and set up independent households. The average per capita availability of land is only 0.68 cents among tribesfolk, the highest being among Kurumbas namely 94 cents. The corresponding figures of Mudugas and Irulas are 56 cents and 63 cents respectively (Table 1).

Table 1
A Comparative Profile of Tribal Households

| <i>Household Characteristics</i> | <i>Muduga</i> | <i>Kurumba</i> | <i>Irula</i> | <i>Total</i> |
|------------------------------------|---------------|----------------|--------------|--------------|
| Age of household head | 44.05 | 38.79 | 44.65 | 43.31 |
| Mean household size | 4.80 | 4.20 | 4.0 | 4.2 |
| Size of land per household (acres) | 2.66 | 3.94 | 2.54 | 2.85 |
| Size of land per capita (acres) | 0.56 | 0.94 | 0.63 | 0.68 |
| Number of crops grown | 3.51 | 4.22 | 2.72 | 3.16 |
| Cattle owned | 2.33 | 2.78 | 2.93 | 2.85 |
| Goats/Sheep owned | 3.12 | 5.96 | 6.23 | 6.15 |
| Per capita farm income (Rs.) | 588 | 838.57 | 984.86 | 889.21 |
| Per capita off-farm income (Rs.) | 4319 | 4989.10 | 5293.40 | 5070.30 |
| Per capita Income (Rs.) | 4907 | 5827.67 | 6278.26 | 5959.51 |

Source: Sample Survey

4. LAND DEGRADATION, ALIENATION AND DIVERSIFICATION OF AGRICULTURE

As we are aware, one of the most important assets which determine the livelihood of inhabitants in an agrarian society is land. Land degradation results in shifts or diversification in livelihood options. The land use pattern in Attappady has undergone spectacular changes since the first quarter of the past century degrading the quality of its land to irreversibly unsustainable levels. The dominant features of the most fragile mountain regions in developing countries are visible in the Attappady mountain ranges also. Persistent negative changes are taking place in crop yields, economic well-being of the people, environment and natural resources through land degradation (Blaikie and Brookfield, 1987). For instance, in Attappady compared to the situation five decades ago, the extent and severity of landslides is higher; water flow in rivers and streamlets is lower; yields of major crops are lower; forest produce has dwindled as forest area sharply declined; over-grazing converted many parts into deserts; and finally, and the extent of poverty and unemployment and out-migration of persons who have little resources left with them has increased. Fall in productivity and decline in the resilience of the traditional farming systems have led tribesfolk to increasing dependence on the government for assistance. The vulnerability of Attappady may be attributed to irreversible damages caused by the overuse of fertile land and vegetative resources, and even to the delicate economic life-support system of the dependent communities. The dangers, in most cases, are irreversible or reversible only over a long period (Grainger, 1982).

The genesis of land degradation in Attappady is complex. The resource base of Attappady was always laid open for exploitation by the *Jenmis* (the Landlord), the British, the planters, the officials, the settlers, and even the so-called aboriginal tribesfolk. The area, in later stages, specifically in the past two decades has received attention of researchers, freelance writers, social workers, and politicians. For some, Attappady has to remain degraded for ever with all kinds of tribal welfare-oriented programmes in full swing so that their lucrative activities like road construction, soil conservation work, etc. could be continued *ad infinitum*. For some others the area has to remain a contentious base.

In the history of Attappady only a few officials have worked for the real development of the area and the welfare of its people as most government officials used to be posted to this hilly area on punishment transfer. Not interested in its development, they remained indifferent and passive spectators of the plundering of the area and its consequent desertification as well as the alienation of its indigenous population from the land. Still for another group the resource and the people were mere instruments for experimentation. Now the area is confronting a new form of degradation other than resource degradation, that is, debasement of human relations. Of the major factors for resource degradation of Attappady, the most prominent are deforestation, influx of migrants, over-grazing, road construction, and changes in the cultivation pattern (Velluva, 2000).

The entry of 'small' malayali settlers into Attappady was, in the beginning, neither for cultivation nor for acquisition of land. They came as workers in the lands of big settlers to fell trees and to do manual work in the *jenmis'* lands. Settlers had acquired land, in the beginning, from *jenmis* or their managers and later from tribesfolk through the employment of various strategies. Tribesfolk had used the land allotted to them by *jenmis* for slash-and-burn cultivation. During the past five decades, several rounds of land transfers have taken place and many of the first generation settlers have died. Property has passed on to descendants of early settlers, *jenmis* or *kariasthans* (Manager of landlord). At the time of our survey, we observed that settlers in Attappady had acquired lands mainly through five sources, viz., (a) inherited from ancestors, (b) purchased from *jenmis*, early settlers, fellow settlers or/and tribesfolk, (c) leased-in (*Kuthakappattom*) from *jenmis*, early settlers, fellow settlers or/and tribesfolk, (d) encroached upon forest land and tribal-occupied areas, and (e) received free from the government.

Large-scale land transfers have taken place from tribesfolk to non-tribesfolk in Kerala and especially in the Attappady region (Mathur, 1977; Kunhaman, 1981, 1989; Muraleedharan and Sankar, 1991). Emergence of plantations, implementation of government-sponsored programmes, indifference of officials and sometimes the favourable attitude of tribal *moopans* towards the well-to-do in society – all contributed directly or indirectly to the alienation of a native community from their main means to live. Various illegal ways have been adopted by in-migrants to expropriate the land in the possession of tribesfolk. They used various means such as offer of gifts, purchase, forcible occupation and acquisition through mortgage to get land from tribesfolk. Little documentary evidence exists for most of the transactions (Muraleedharan and Sankar, 1991). There are cases in which land was obtained by settlers by offering narcotics and liquor (Panoor, 1990). In several cases, aggressive use of force and threat was the method employed. The various methods adopted by settlers for acquiring tribal lands are thus found to be (a) lending of money during off-season at exorbitant rates of interest and occupation of tribal land without any record, *in lieu* of loan (b) transfer of tribal land to non-tribesfolk in the guise of lease (*kuthakappattom*) or mortgage (*bhogyam*) (c) acquisition by encroachment and (d) acquisition by force and threat. The extent of land lost by the tribesfolk due to non-repayment of cash loans was higher in Attappady than in any other tribal area in Kerala (Mathruboomi, 1983). The immediate consequence of land alienation is that the total cultivable area of the tribesfolk declined sharply while that of the non-tribesfolk increased several fold. A major chunk of the land left with the tribesfolk remained uncultivated due to several reasons such as disputes, lack of finance, and unsuitability of the land.

Traditional tribal cultivation was primitive subsistence agriculture of the slash-and-burn type (shifting cultivation or *Kothukadu* or *Punam* cultivation). Their livelihood was mainly obtained from subsistence

farming and minor forest produce collected from the forest. In the course of time, the area under shifting cultivation dwindled considerably due to a variety of reasons like emergence of settlers with a different mode of cultivation, monetisation of the tribal economy and restrictions on extensive cultivation imposed by the government. The two types of cultivation, shifting cultivation, based on tribal know-how and technology and settled cultivation (peasant agriculture), are now in operation in Attappady among the tribesfolk. Among the three tribal communities, it is mainly Kurumbas who follow shifting cultivation. More than 90 percent of area owned by Kurumba communities is still under traditional shifting cultivation, while Mudugas and Irulas cultivate nearly half the area under their possession for subsistence purposes. Our personal visit to Edavani *ooru* of Kurumbas indicates that the settled type of cultivation is not practised by any family there. The traditional livelihood pattern of Kurumbas remains mostly unaffected; they have not taken to peasant cultivation. Hence, crop diversification is very little among these tribes. Mudugas and Irulas concede that they follow peasant cultivation, having come under the influence of the agricultural practices of malayali and tamilian settlers.

Around 50 percent of the households interviewed opined that influence of settlers is the main factor for the shift from traditional cultivation to cultivation of perennial and seasonal crops as practised by settlers. Another major reason they identified is need for money, which they could not raise from shifting cultivation. Hence, the livelihood strategies of tribesfolk are influenced to a large extent by the settlers and the need for money. Irulas and Mudugas cultivate extensively perennial crops like coconut, arecanut, cashewnut (cashew seedlings are supplied through supporting agencies), and pepper but seldom follow scientific principles of cultivation. They get supplies of seeds and seedlings but little crop maintenance support from the agricultural extension wing of the State government.

The Attappady region is characterised by great crop diversity. Crop diversification is a part of the shift in their livelihood strategies. Malayali and tamil settlers cultivate a variety of crops many of which are raised for sales. The tribesfolk have been forced to accept many of these crops for cultivation. Of the total cultivated area among Mudugas 51.4 percent is under traditional tribal crop mix while 40 percent is under malayali home garden crops such as jack, mango, coconut, pepper vine, and bananas/plantain, etc. Mudugas are not found practising the dry crops of the tamilians like cotton and groundnut. Among Kurumbas the influence of home garden of malayalis and dry crops of tamilians are very low as more than 90 percent of their land area is under shifting cultivation (Table 2). However, together with settlers, Kurumbas are practising ganja (*Cannabis sativa*) cultivation in the interior parts of forest. A different picture is obtained for the Irula community. They are practising all types of crops – malayali home garden types, traditional tribal crops, and tamilian settlers' crops including sugarcane.

Irula farmers grow cotton and groundnut but the yields are low and uncertain, as their lands lack irrigation facilities. Often they go for the trial-and error method in the selection of crops, as they themselves are not sure of the suitability of the land for the crops. In addition, Irulas and Mudugas depend primarily on daily wage (*coolli*) labour for their income and avoid devoting too much time to the risky venture of cultivation on their marginal lands. In short, the livelihood of Kurumbas still depends on subsistence farming; more diversification of cropping is observed among Mudugas and Kurumbas.

Table 2
Crop combination among tribesfolk

(Area in percentage)

| <i>Crop Combinations</i> | <i>Muduga</i> | <i>Kurumba</i> | <i>Irula</i> | <i>Total</i> |
|---------------------------------------|---------------|----------------|--------------|--------------|
| Tribal crops | 51.4 | 92.4 | 41.2 | 54.6 |
| Malayali home garden | 40.0 | 3.8 | 22.7 | 21.0 |
| Tamilian dry crops | — | — | 9.9 | 6.1 |
| Tribal crops and malayali home garden | 8.6 | 1.9 | 5.0 | 4.8 |
| Tribal crops and tamilian dry crops | 0.00 | 1.9 | 18.4 | 11.8 |
| All crops | 0.00 | 0.00 | 2.8 | 1.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Sample Survey

Thus, we found that external intervention in the form of in-migration has alienated tribesfolk from their ancestral lands. In the process of settlement and land transfer tribesfolk were pushed to the steepest parts of the Attappady hills. The process of land transfers from the tribesfolk to settlers continued unabated till most tribesfolk were reduced to the status of wage labourers living from hand to mouth. Only a few are left with relatively large holdings. As a result of settlers' influences, coupled with the services of agricultural extension agencies, the agricultural practice of the tribesfolk has undergone drastic changes from shifting cultivation to an array of crop combination practices. However, these changes could not improve the living condition of tribesfolk as they lack technical and financial support to enhance the productivity of their crops.

5. ACTIVITIES, ACCESS TO RESOURCES AND LIVELIHOOD

After discussing impact of external intervention on livelihood strategies, we now move on to an analysis of the access of tribal households to the fruits of developmental programmes; their economic activities, both natural resource based and non-natural resourced based; and the income portfolios of the tribal households. Livelihood strategies are composed of activities that generate the means of household survival. Therefore, different categories of activities and incomes generated from them are examined here. Access to resources, natural and non-natural, is the prime factor, which determines the livelihood of poor rural people. Therefore, an attempt is made to examine the access of tribesfolk to resources through programmes mediated by developmental institutions.

5.1. Activities and livelihood

Before external intervention began, the tribal economy consisted mostly of natural resource based activities. However, there has taken place a drastic change in the livelihood activities in course of time. We have classified the occupational status of the members initially into main and subsidiary; each category is then subdivided into nine categories, namely, (1) agriculture (cultivation) and other allied activities including livestock maintenance, (2) wage labour in agricultural and non-agricultural sectors, (3) trade/business, (4) Government services including activities of developmental agencies, (5) students, (6) household work, (7)

unemployed, (8) too young or too old, and (9) others. The most striking observation is that cultivation as a primary occupation accounts only for 3.3 percent of the total sample; and in the Irula community, the figure is below two percent. A large proportion of household members reports *coolli* as their primary occupation. While 58 percent of Irulas and Kurumbas are engaged as daily wage labourers, 40 percent of Mudugas are engaged so. Both men and women engage themselves as wage workers in farm and non-farm activities. The main sources of wage labour for tribesfolk is work in the lands of the non-tribesfolk during the agricultural season; work is available also in soil conservation programmes, and construction projects carried out. The participation rate of tribesfolk in government service is merely about two percent. Most of the sample households consider cultivation in own land, a secondary source of income. When wage labour is not available most of the families spend time in own farm activities.

5.2. Income portfolio of tribesfolk

The income portfolio of each tribal group is constructed separately to understand the relative shares of their difficult economic activities in their livelihood platform. Economically, the Irula community is better off than the other two communities, as 42.5 percent of the Irula families fall in the monthly income bracket of Rs 2000-4000. Mudugas are found to be very poor as more than one-fourth of their households have monthly income below Rs 1000. On the average, 40 to 50 percent of all the tribal families lie in the monthly income bracket of Rs 1000 to Rs 2000. However, this picture does not clearly give the economic status of the household unless we consider the average household size. The average monthly income from all sources, farm and non-farm, of a household with four members is around Rs 2000 only. Wide inter-community differences are noticed in average family income.

Let us now examine the income portfolio across tribal communities. As might be expected, the proportion of income from wage labour is more than 80 percent for all the communities while income from agriculture is seen to be as low as around nine percent. Income from livestock and forest products seems to be less important for Mudugas (only 1.72 percent of their income portfolio) than for Irulas and Kurumbas (10.81 percent and 7.62 percent respectively). Forest dependence of Kurumbas for collection of minor forest produce, on the one hand, and livestock maintenance among Irulas, on the other, are reflected in their income portfolio. Overall, the tribesfolk are distinguished by their reliance on wage income, and their relative low incomes from other sources.

After a perusal of the income portfolios of households, we may examine the inter-tribal variations in the share of various sources of income viz., livestock, forest products, and agriculture to total household income and the relative importance of each.

Livestock

As for Mudugas, 83 percent of the families are not generating any income from livestock and for other communities the corresponding figures turn out to be 66 percent for Kurumbas and 45 percent for Irulas. However, for families depending on livestock, 22 percent are generating only less than ten percent of their income from this source. Around 20 percent of Irula households generate 10 to 20 percent of their family income from this source. The average monthly income from livestock is found to be the highest for Kurumbas and the lowest for Mudugas.

Forest Produce

As mentioned earlier none of the Mudugas are found relying on forest other than for collection of firewood. Income from forest resources supplements around ten percent of family income for around 76 percent of Kurumba families. Another nine percent could accrue 10 to 20 percent of their family income exclusively from forest products. The average income from the marketing of forest product is Rs 119 for Kurumbas and only Rs 33 for Irulas. For diversification of income portfolios proper training to tribesfolk and scientific extraction of minor forest produce are essential.

Agriculture

The share of income from cultivation to total income of more than 50 percent of tribal household is less than ten percent. Nearly half the Muduga households and a quarter of households of other communities generate another 10 to 20 percent of their family income from agriculture. However, only a meagre two percent of the families create above 40 percent of their family income from this source. It follows that the share of farm income to the livelihood of the tribal households has fallen to extremely low levels. Developmental schemes failed, at least in part, to inculcate the urge for diversification of occupations of the tribesfolk.

5.3. Access to resources and livelihood

Livelihood of a household depends also on access to resources. Access to resources indicates wealth status and resource use generates income. Access to forest resources, credit, health facilities, and developmental activities enhances the economic opportunities of tribal households. Leakage and pilferage from the development schemes defeat their very objective. A recent study by AHADS came to the conclusion that very little of the huge amounts of money spent on various development activities in the Attappady block, in the form of concessions and assistance, had reached the intended beneficiaries.

Access to forest resource

Mudugas depend on forest for collection of firewood, reed, and bamboo. During the early days of immigrants from the plains below, the main source of livelihood for tribesfolk, in addition to crops cultivated, was forest produce. Now, the degree of dependency on forests has declined considerably and is limited to the collection of essential items for household use. However, Kurumbas who live in the interior parts of forest collect various minor forest produce for commercial purposes. But they collect only a few items, about seven or eight, since the younger generation among them – and also among Irulas – is reluctant to go to forest for livelihood. Honey is the most important item of forest produce collected by the tribesfolk. More than 90 percent of the Kurumba households collect honey during the season, while only 16 percent Irula households are engaged in this activity. Other important items collected are *Kundirikkam* (dammer) and *Kungilyam* (sal tree). Forest as livelihood has lost its predominance in Attappady. Lack of alternative livelihood sources has diverted the attention of the younger generation to other available and easily accessible occupations, particularly to wage labour.

Access to credit and its use

Tribesfolk look for credit facilities for meeting their daily needs of consumption and long term needs house construction, as well as for marriage and house repairs. Credit facility in Attappady seems to have

improved considerably by now. The practice of borrowing from banks and cooperative society for agricultural or other business purpose is not yet very common among the tribesfolk. Of the total sample, 84 percent household are reported to have received money for house construction purposes and the average amount received comes to Rs 18929 per household. Even though credit is accessible in the region, only Irulas (15.8 percent) have taken loans from banks. However, settlers, both Malayalis and Tamilians make use of institutional credit facilities to a much greater extent. About 15 percent of the Irula households have utilised bank loans for agricultural purpose. Poor repayment capacity, ignorance, and arrogant behaviour of officials are pointed out as reasons for the reluctance of tribesfolk to approach banks for financial assistance.

Access to health facilities

Epidemics and various other diseases are quite common in the region, though their intensity magnitude has come down over the years. During our field study, instances of children between 10 to 15 years of age working as wage labour because their parents were suffering from chronic diseases like tuberculosis. Inaccessibility to specialised treatment facilities many patients have been unattended and uncared for. However, tribesfolk get free medical treatment from government hospitals and dispensaries in their locality. There are three public health centres and one community health centre operating in Attappady. Altogether 27 sub-centres are available in the relatively interior areas. In addition, two ayurvedic hospitals and three homoeopathic hospitals also exist. As expected, tribesfolk rely mainly upon government hospitals (public health centres) and dispensaries for treatment of any kind of diseases and are found happy with the medicines dispensed to them by these institutions. Nearly 95 percent of the tribal households depend only on government hospitals for treatment.

Access to developmental programmes

Over the years tribal households have received assistance in cash and in kind, through several developmental programmes. Assistance rendered through these schemes has undoubtedly played a significant role in improving the living conditions of tribesfolk. The areas of assistance received are broadly classified as agriculture, animal husbandry, education and self-employment.

One of the prominent areas in which assistance is required to improve the living conditions of the tribesfolk is agriculture. When less than one-third of Kurumba households and about 30 percent of Irula households reported having received land for cultivation, not a single Muduga household reported so. Also more than one-fifth of the Irula community received seeds for cultivation from governmental agencies. Assistance in the form of fertilisers, tools and implements, and irrigation facilities remains far below requirements. Another area of assistance is supply of cow, goat/sheep, and chicks. Only a few households (less than 10 percent) received assistance in this segment; inter-tribal disparity in assistance received of livestock is high. Muduga households reported that they have been completely left out from the support scheme.

Education plays a crucial role in changing the attitudes of people towards better livelihood strategies. It is not just the build-up of schools but easy and free access on the one hand and fulfilment of associated requirements on the other, which enable vulnerable commitments to improve their levels of living. Several facilities are made available to tribal children to undergo education; they are not fully made use of for the want of income of the tribal households. All tribal children have facilities like stipend, books, dress, mid-day meals, and hostel facilities. However, inter-community disparities exist. Around 50 percent of the

households enjoy all the educational facilities. Irula households enjoy more educational facilities than the other two communities. It is the Muduga community in Pudur is that lags behind.

Self-employment has not become widespread among tribesfolk. Schemes implemented for promotion of self-employment among them have not yielded the expected results. Training for starting small stores or other small business units remains inaccessible to most tribal households. Training given for the collection of forest produce a practice, which is dwindling in the area, and for forest work has helped promotion of certain self-employment activities.

6. DISCUSSIONS AND CONCLUSION

The discussion on the shift in livelihood strategies among tribesfolk of Attappady indicates that the massive influx settlers, both from Kerala (malayalis) and Tamil Nadu (tamilians), since 1950s created a dualistic society in the region. The basic tenet and notion that well-being of tribesfolk can be augmented by supportive system is disproved and found that resource access is of paramount importance. External intervention, land alienation and unscientific supportive mechanism culminated to form a less attractive livelihood diversification among tribesfolk.

The major determinants of livelihood of a community are possession and/or access to natural, physical, household, and human capital. A perusal of the ownership/possession of these assets indicates that development programmes have not succeeded in building up the minimum basic requirements of tribesfolk. The process of settlement, turned increasingly exploitative in nature over time, particularly since the massive influx of landless and economically backward people to the region began. In their frantic efforts to acquire land, tribesfolk underwent indiscriminate exploitation at the hands of in-migrants from both sides of the valley. The process of land transfers from the tribesfolk to the settlers continued unabated till most tribesfolk were reduced to the status of landless agricultural labourers.

As a result of the influx of people from outside the area, agricultural practices of the valley have undergone total change from the unique tribal mode of production to a variety of cropping systems. The *adivasis* have been forced to accept many of these crops to supplement their livelihood. Wages contribute more than 80 percent of tribal's household income. Income from other sources, namely, livestock, forest products, and agriculture is relatively low among all communities, with only small inter-community variations. The drastic decline in the share of agriculture in the income portfolio of tribesfolk is attributed to land alienation, lack of fertile land, and lack of sufficient institutional support.

Tribesfolk's access to resources and benefit-oriented schemes has yielded mixed results. Dwindling of forest areas and lack of supportive systems has reduced forest dependency of tribesfolk, especially Mudugas and Irulas. In the absence of proper education, productive utilisation of credit facilities is not common among the tribesfolk. Development-oriented assistance and concessions have benefited the tribesfolk a great deal. However, inter-community differences existed in the extent of utilisation or the allotment pattern or assistance. Irulas and Kurumbas benefited more than Mudugas. Assistance to improve the farm income is found quite inadequate. Assistance to improve access to education, like stipend, books, dress materials, mid-day meal and hostel facilities have benefited all the tribal households. Mudugas, however, reported a lower level of utilisation of educational assistance from developmental agencies. Little effort has been made to equip the tribesfolk to take up self-employment opportunities.

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