

## Analyzing the Livelihood Opportunities among the Tribes of the Western Ghats in Kerala

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**ABSTRACT** The livelihood opportunities among the tribes of western Attappady namely, Irula, Muduga and Kurumba were analyzed to develop an understanding about their socio-economic status. A pre-tested questionnaire survey and semi-structured interviews were conducted in 150 randomly selected households from nine settlements. The Irula community who settled in the lower valley had frequent interactions with the settlers (outsiders) having the highest literacy rate (73%) followed by Kurumba (67%) and Muduga (56%). Daily wages work was the major occupation and source of income for the Irula and Muduga communities, whereas Kurumbas who settled in the interior forest depended on Non-timber forest products. All the tribal communities incurred maximum expenditure for the purchase of the food commodities. The better education opportunities provided to the younger generation could open up new occupational opportunities and economic status for the indigenous people.

### INTRODUCTION

Tribes are the aboriginal inhabitants of the country who have been living a life, based on the natural environment and have cultural patterns congenial to their physical and social environment (Nalinam 2016). In Kerala there are 36 scheduled tribes. The tribal population in Kerala according to the 2011 census is 0.4 million, which is 1.5 percent of the overall population of the state (GoI 2011). Wayanad is the most tribal populated district in Kerala (18.53%), whereas Alappuzha (0.15%) is the least. The largest tribal group in Kerala is Paniya (22.5%), followed by Kurichya (9%) (Chathukulam et al. 2013). Cholanaickans, Koraga, Kadar, Kattunaikkan and Kurumbas are the primitive tribes in Kerala who led a foraging way of life and constituted a population of 4.8 percent of the total tribal population of the state (Shanavaskhan et al. 2012).

The Attappady region, which is part of the Western Ghats of India, is a tribal dominated area. The three tribal communities settled in Attappady are Irula, Muduga and Kurumba (Rozario 2013). The Irulas inhabiting the plains and low elevations constituted the majority tribal

population at Attappady (Padmanabhan and Sujana 2008). Muduga is the second largest tribal community in Attappady. The Kurumbas concentrated in the higher elevations of the Western Ghats are the least populated tribal community in Attappady (Poyil 2013). They are the primitive tribal group in Kerala who have settled in the interior areas of the forest and experienced extreme poverty among three tribal groups in Attappady (Sujith et al. 2014). A lot of changes have occurred in the tribal culture due to the high influx of settlers (GoK 2010). The present study looks into the socio-economic characters of the tribes residing in the western slopes of Attappady. The paper analyzes the influence of settlers and the government bodies and projects in the socio-economic and cultural characters of the indigenous people. Such an analysis is very important in order to assess the success of the various government policies for the tribes. After understanding the current socio-economic status of the indigenous people the government can modify their program and policies.

### Objectives

The main objective was to develop a clear understanding about the socio-economic condition of the tribes in Western Attappady, to find the reason behind the current socio-economic condition of the tribes and the government interventions to enhance their livelihood opportunities.

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## METHODOLOGY

The study was undertaken in the tribal dominated area of Kerala in the buffer zone of Silent Valley National Park in western Attappady, which is part of the Western Ghats of India. The nine tribal settlements namely Mukkali, Karuvara, Chindakki, Thadikundu, Anavayi and Thudukki were surveyed from December 2013 to June 2014. The details about the settlements are given in Table 1. A simple random sampling method was adopted for the selection of samples, with the unit of study being the household. From the tribal groups, fifty households from each community were randomly selected for the study. Out of 459 households in the study area, 150 households (32%) were surveyed as part of the study. Simple statistical tools like frequency and percentages were employed for the analysis of socio-economic data. In order to measure the socio-economic standards of the selected communities, educational status, income, occupation and expenditure pattern were analyzed. Chi square test was used to compare the different parameters like education, income and expenditure among the three tribal communities.

## RESULTS

The socio-economic status and the livelihood opportunities of the tribes of western Attappady are given below.

### Education

The Irulas had the highest literacy rate with seventy-three percent, followed by Kurumbas (67%) and Mudugas (56%) (Table 2). Those who have not gone to the school were considered as

illiterates in this study. The educational status among the Irula community was as follows, that is, sixteen percent were educated till the lower primary level, seventeen percent up to upper primary level, twenty-eight percent up to high school level, eleven percent up to higher secondary level and one percent till college level, whereas in Muduga community it was twelve, sixteen, twenty, six and two percent, respectively. In the Kurumba community, nineteen percent were educated till the primary level, sixteen percent till upper primary level, twenty-two percent till high school level, nine percent till higher secondary level and one percent till college level.

**Table 2: The educational status of the tribes in Western Attappady**

S. No.	Educational status	Irula (%)	Muduga (%)	Kurumba (%)
1	Illiterate	27	44	33
2	Lower primary	16	12	19
3	Upper primary	17	16	16
4	High school	28	20	22
5	Higher secondary	11	6	9
6	College	1	2	1

(P= 0.115574)

### Occupation and Sources of Income

The Irula community who settled on the lower plains of the valley was involved mostly in daily wages work. Fifty percent of the households were involved in daily wages work (Table 3). Irulas had a higher percentage (20%) of government jobs compared to other communities. Eighteen percent of the Irula houses depended on NTFP collection. The daily wages work had contributed sixty-nine percent of their income, whereas the government jobs contributed nine-

**Table1: Description of the hamlets of tribes in Western Attappady**

S. No.	Hamlet	Tribal group	Population (Nos.)	No. of houses	Distance from *Mukkali (km)
1	Chindakki	Muduga	108	30	5
2	Karuvara	Muduga	158	45	4
3	Karuvara	Irula	111	26	4
4	Chindakki	Irula	253	72	3
5	Mukkali	Irula	178	45	0.1
6	Thadikundu	Kurumba	129	36	7
7	Palappada	Kurumba	11	5	7
8	Anavayi	Kurumba	411	110	14
9	Thudukki	Kurumba	378	60	18
	Total	1737	459		

**Table 3: Occupational status of the tribes of Western Attappady**

S. No.	Job type	Tribal communities' involvement (%)		
		Irula house-holds (n=50)	Muduga house-holds (n2=50)	Kurumba house-holds (n3=50)
1	Agriculture	2	2	0
2	Daily wages	50	24	4
3	Agriculture + Dailywages	0	12	0
4	Agriculture + NTFP collection	0	0	42
5	Daily wages + NTFP collection	18	38	0
6	Agriculture + Dailywages + NTFP collection	0	14	34
7	Government jobs	20	10	12
8	Others	10	0	8
	Total	100	100	100

teen percent, agriculture and NTFP collection contributed one percent each. The Mudugas occupational status involves a combination of agriculture, daily wages and forest based labor. The majority of Muduga houses followed a combination of daily wages and NTFP collection (38%). The Mudugas were having only part time jobs at the Attappady Farming Cooperation farm, so they were depending on agriculture, daily wages work and NTFP collection. The highest contribution to the income of Mudugas was through daily wages work (64%), followed by agriculture and government jobs (13%). The non-timber forest products contributed nine percent of their income (Table 4). The Kurumbas who settled in the interior forest primarily depended on NTFP collection and agriculture for their subsistence. They had less opportunity for other jobs. Forty-two percent of their households were involved in jobs pertaining to agriculture as well as NTFP collection. Thirty-four percent of the households were involved in agriculture, NTFP collection and daily wages works. The NTFP collection contributed forty-four percent to their income, whereas agriculture and daily wages work contributed three and nineteen percent, respectively. In the government sector twelve percent of the Kurumbas were employed. The government jobs contributed twenty-four percent to their income. The others include jobs such as sales executives, LIC agents and driv-

ers that contributed ten, one and ten percent to the incomes of Irula, Muduga and Kurumba, respectively.

**Table 4: Sources of income for the tribes in Western Attappady**

S. No.	Tribal group	Sources of income	Percentage of income (%)
1	Irula	Daily wages	69
		Agriculture	1
		Govt jobs	19
		NTFP collection	1
		Others	10
2	Muduga	Daily wages	64
		Agriculture	13
		Govt jobs	13
		NTFP collection	9
		Others	1
3	Kurumba	Daily wages	19
		Agriculture	3
		Govt jobs	24
		NTFP collection	44
		Others	10

#### Landholding of the Tribes

Sixty-six percent of the Irula households were landless and only four percent had up to three acres of land. Thirty percent of the Irulas were having less than one acre of land. In Muduga community forty-two percent of the households were landless and eight percent households were having more than three acres of land. Twenty-four percent of the Mudugas have up to 3 acres of land and twenty-six percent have less than one acre of land. The Kurumbas had the common property resource known as *Panchakkadu* (4 acres/family) for carrying out agriculture (Table 5).

**Table 5: Average land holding among the tribal groups of Western Attappady**

S. No.	Group (n= 150)	Land holding (Acres)			
		LL (%)	<1 (%)	1-3 (%)	>3 (%)
1	Irula (n1=50)	66	30	4	-
2	Muduga (n2=50)	42	26	24	8
3	Kurumba (n3=50)	-	-	-	100

LL: Landless (P= 0.000\*), - Denotes Not Applicable

#### Family Consumption Expenditure of the Tribes

The average annual expenditure of Irulas, Mudugas and Kurumbas were found to be INR 76,950, 75,300 and 57,300, respectively (Table 6).

**Table 6: Expenditure pattern of tribes in Western Attappady**

S. No.	Item	Average annual expenditure (Rs)					
		Irula		Muduga		Kurumba	
1	Food	26000	(34)	24000	(32)	18000	(31)
2	Cloth	7000	(9)	6500	(9)	5000	(9)
3	Health	6000	(8)	5500	(7)	3000	(5)
4	Education	5000	(6)	5000	(7)	5000	(9)
5	Transportation	8000	(10)	9000	(12)	6000	(10)
6	Power	850	(1)	800	(1)	300	(1)
7	Festival	7000	(9)	7000	(9)	5000	(9)
8	Farm expenses	2100	(3)	2500	(3)	1000	(2)
9	Miscellaneous	15000	(20)	15000	(20)	14000	(24)
	Total	76950		75300		57300	

Major part of the expenditure incurred was for food, transportation and miscellaneous. Even though there was variation in the amount spent for dresses, all communities spent nine percent of their income on purchasing dresses. The Irula spent thirty-four percent of their income on food, whereas Mudugas and Kurumbas spent thirty-two and thirty-one percent respectively, of their income for the same. The expenditure for treatments registered eight, seven and five percent for Irula, Muduga and Kurumba, respectively. Transportation cost was also found to be a major item in the tribal expenditure. Irula and Kurumba had spent ten percent each whereas Mudugas spent twelve percent of their expense for transportation. The miscellaneous expenditure (alcohol, smoking, mobile recharge, soap, paste) was twenty percent each for Irulas and Mudugas, whereas for Kurumbas the expenditure incurred was twenty-four percent. For festivals and celebrations nine percent of their income was spent by all the communities. The agricultural expense was two percent for Kurumba and three percent for Irula and Muduga communities.

### Houses and Infrastructure

The Attappady Hill Area Development Society (AHADS) have constructed concrete houses in most of the tribal hamlets. The houses were constructed and given to them under the housing scheme of AHADS (Paul 2013). Hence, all the houses in a settlement looked similar. The flooring was done using tiles. All the houses were provided with toilet facilities. Funds were

provided by the tribal department for repairing the houses. Electricity was available at Mukkali, Karuvara and Chindakki settlements. Towards the interior settlements there was no electricity connection. Now the forest department has established solar panels in those settlements. Electric fencing has been done around the settlements in order to prevent the attacks of the wild animals. The Forest Department has laid pipes to the settlements for supplying water. (Source: Semi structured interview with the Irula, Muduga and Kurumba)

### Health

Both men and women among the tribal communities in western Attappady have the habit of consuming alcohol. The number of smokers is also on the higher side. Most of them use beetle leaves for chewing. These might be the reasons for higher death rates due to cancer and heart attack in the recent years. The lifestyle diseases like heart disease, diabetes and blood pressure were observed among male tribes owing to the use of tobacco and alcohol consumption (Padmavathi and Ramdas 2012). The malnutrition issues of children were also a major problem. The malnutrition cases were classified under Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM) based on the health status of the child. Sickle cell anemia and Hepatitis B were also common among the tribal communities. The young children were frequently suffering from scabies and dysentery. The factors such as lack of sanitation, fresh water availability and lower calorie and iron intake are leading to malnutrition, anemia and spread of communicable diseases among the tribes (Nalinam 2016). Free treatments were made available to the tribal communities from the tribal hospital at Kottathara. Considering all these facts the central government has launched the Attappady package intended to improve the health service of the indigenous people (GoI 2014) (Source: Semi-structured interview with the Irula, Muduga and Kurumba).

### Social Changes

The tribal communities are undergoing rapid phase of modernization. The frequent interaction with the settlers has brought changes to the tribal culture. Earlier the tribes did not allow inter-communal marriage. Now the tribes have

started marrying even non-tribal people belonging to Muslim and Christian religions. The younger generation got the opportunity to study in different parts of Kerala through the government sponsorship. So while they stay in the hostel along with other students from the modern society, slowly they have also been familiarized to the modern lifestyle and are slowly moving away from their culture. For getting better education and jobs, certain families have started moving out of their settlements. The use of new technologies like mobile phones was very common even with the Kurumbas who settled in the interior areas of the forest.

### DISCUSSION

The overall educational status of tribes in Kerala according to 2011 census was 64.35 percent (GoI 2011). In Irula and Kurumba communities, the literacy rate was higher than the state average. Education will bring in change in their world-view and give them hopes for a better tomorrow (Haseena 2015). Recently, the state government has implemented new projects for improving the educational status of the tribes. The government is distributing educational concessions, scholarships and other kinds of assistance to the students from primary to postgraduate level (Chathukulam et al. 2013). This venture increased the educational status among the younger generations. The Particularly Vulnerable Tribal Groups (PVTGs) among the tribes got special attention due to their vulnerability in the present situation, and their customary right to land, forest and sources of livelihood must be respected and protected (GOI 2014). Since the Kurumba community is one among the particular vulnerable tribes in Kerala, they were much benefited through the project. This might be the reason for higher educational status among the Kurumbas who settled in the interior forest. The Irulas who settled in the lower plains had frequent interaction with the settlers. This relationship resulted in the highest educational percentage for Irulas among the tribes (GoK 2010). The Mudugas prefer to remain as far removed as possible from the civilized people from the plain (Jalaja and Kala 2015). This might be the reason for low literacy rate for Mudugas. Policies and programs designed to benefit the scheduled tribes need to be tailored to not only promote the wellbeing of tribes in general but also to

target the specific needs of each tribe, needs that differ both in nature and severity (Haddad et al. 2012).

The highest proportion of the tribal workers in the state is that of agricultural laborers (Nithya 2014). The Irulas were working as agricultural labourers in the agriculture land of settlers or in the farms of Attappady Cooperative Farming Society (AFC). None of the Irula houses in Karuvara settlement were involved in NTFP collection because they had work throughout the year in AFC farm. Since Irulas was residing on the lower plains, they got more job opportunities through MGNREGP (Mahatma Gandhi National Rural Employment Guarantee Program) than Mudugas and Kurumbas. The Irulas got maximum eighty days of work annually through MGNREGP, whereas Mudugas and Kurumbas got maximum sixty days of work. The MGNREGP has become an important source of employment for the communities (Paul 2013). The Mudugas were excellent tree climbers, so they were given part time jobs in AFC farm for lopping of the trees. The Kurumbas' agriculture was mainly for subsistence, whereas for Mudugas agriculture was a source of income. The Kurumbas continue to be shifting cultivators and food gatherers. In olden days, they had freedom to cut and burn as much area as they could manage for shifting cultivation and they cultivated a variety of crops such as *chama*, *thuvvara*, *jower*, black gram and *ragi* (Jalaja and Kala 2015), whereas the Mudugas cultivated crops such as pepper, plantain and arecanut. The Kurumbas still follow a small pattern of shifting cultivation. Initially the land for cultivation was cut and burned, which enhanced the fertility of the land. Since the Irula community was more involved in daily wages work, they were not having much landholdings, whereas for the Mudugas agriculture was a source of income so more number of houses were having land to do cultivation. Since the agriculture or NTFP collections are seasonal works, the tribes are finding it difficult to have year round employment. This is the major reason for their poor living standards. Thus, the tribes are forced to take loans, which ultimately lead them into the clutches of middlemen, moneylenders or exploiters.

The Kurumbas depended on the tubers and leaves available in the forest during the monsoon season. The Mudugas and Irulas were depending on a public distribution system and

private shops for their food needs. Since the shops are near their settlements, they preferred buying things from the shops, rather than going to forest for collecting various food commodities. The public distribution system gave 35 kg of rice/month to a family at INR 1/kg. All the groups were spending an amount for their miscellaneous uses (alcohol, cigarettes, mobile recharge). The Kurumbas were spending twenty-four percent of their income on miscellaneous uses. This might not be because of higher consumption rate, but the alcohol which were brought from outside to the settlements in the interior areas of the forest for sale, fetched higher price than that of the government outlet. For the *Shivaratri* festival every one purchases new dresses and celebrates grandly. For better education their children are studying in different parts of Kerala. Since they are staying in hostels, parents visited them frequently and provide some pocket money to them. This increases their transportation expenses. When monthly expenditure was worked out per person of Irula, Muduga and Kurumba, the annual expenditure values obtained were INR 1991, 1530 and 1033, respectively. According to the socio-economic survey of the Government of Kerala (2008), the average monthly per capita expenditure among STs in Kerala was INR 614. The increased expenditure among the tribes in western Attappady might only be because of the normal increase in their wages or collection rate of NTFP that took place over the years. Consumption of alcohol is a part of social rituals in many tribal communities and majority of the tribal people were addicted to alcohol irrespective of gender, and among the livelihood issues perceived by the tribes the first rank was given to alcoholism (Sachana and Anilkumar 2015).

### CONCLUSION

The efforts by the government to uplift the tribal life through better education and job opportunities are making some progress to the tribal communities in western Attappady. The better education has prevented the tribes from the exploitation of the middleman in case of marketing of non-timber forest products. Daily wages work was the major source of income for Irula and Muduga communities. The lack of other job opportunities made Kurumbas to depend more on the collection of non-timber forest products. The tribal culture of the indigenous communities is slowly vanishing away. The frequent in-

teractions with the settlers have brought about changes in their way of living. The expenditure pattern of the tribes showed that they are also moving slowly into a habit of consumerism. The health condition of the tribes needs special care. The alcohol consumption and smoking habit are reducing their lifespan. The new projects for the tribal welfare should be implemented only after understanding the socio-economic, cultural status and needs of the tribes. Otherwise such projects will not meet their targets and the tribe remains as they were at the beginning after spending cumbersome amounts of money.

### RECOMMENDATIONS

The government bodies must ensure that the various projects implemented are achieving its goals. Separate schemes have to be developed for each tribal community, since there is variation in the occupation pattern among the tribes. For Kurumbas schemes relating to the value addition of NTFPs can ensure a better livelihood for them, since they are mostly involved in NTFP collection. Since the Mudugas are more involved in agriculture, new schemes (including supply of seeds or planting materials, fertilizers, marketing of harvested crops) can be implemented, to do cultivation scientifically and to increase the productivity. Conscious efforts have to be taken in order to bring down the habit of alcoholism among the tribes, which is the major reason behind the exploitation and poor living standards. The different schemes have to be implemented after understanding the need of the tribes.

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