

**DYNAMICS OF DEFORESTATION AND SOCIO-
ECONOMIC PROFILE OF TRIBAL WOMEN FOLK IN
KERALA - A STUDY OF ATTAPPADY**

*Thesis submitted to the
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for the award of the degree of Doctor of Philosophy
under the faculty of Social Science*

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Certified that the thesis "Dynamics of Deforestation and Socio-Economic profile of Tribal Women Folk in Kerala-A study of Attappady" is the record of bonafide research work carried out by Mrs. Haseena. U.A, under my supervision. The thesis is worth submitting for the degree of Doctor of Philosophy.

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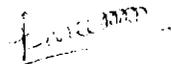
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DECLARATION

I do hereby declare that the thesis captioned “Dynamics of Deforestation and Socio-Economic profile of Tribal Women Folk in Kerala- A study of Attappady”, is the record of bonafide research work carried out by me under the supervision of Dr.M. Meera Bai, Reader, Department of Applied Economics, Cochin University of Science and Technology, Cochin-22, submitted for the partial fulfillment of the requirement for the degree of Doctor of Philosophy. I further declare that this thesis has not previously formed the basis for the award of any Degree, Diploma, Associateship, Fellowship or other similar title of recognition

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CONTENTS

Page No

1. INTRODUCTION.....	1 - 38
1.1. Tribal situation in general	4
1.2. Tribals in Kerala	9
1.3. Primitive Tribals in Kerala	16
1.4. Constraints in Tribal Development	17
1.5. Role of women in the Tribal society	18
1.6. Tribal society and Development	23
1.7. Constitution and Scheduled tribes	24
1.8. Tribe's Advisory Council	27
1.9. Integrated Tribal Development Programmes	28
1.10. The Fifth Schedule	30
1.11. The Sixth Schedule	31
1.12. Tribal Sub Plan	32
1.13. Institutions and Tribal Development	33
1.14. Statement of the problem	34
1.15. Significance of the study	36
1.16. Objectives of the study	37
1.17. Methodology	37
1.18. Limitations of the study	38
1.19. Design of the study	38
2. REVIEW OF LITERATURE.....	39 - 69
2.1. Literature dealing with socio-economic condition	39
2.2. Literature dealing with institutions	60
2.3. Theoretical Framework	64
3. PROFILE OF THE STUDY AREA	70 - 104
3.1. Geology and soil	72
3.2. Climate	73
3.3. Rivers	73
3.4. Land use pattern	74
3.5. Forest	78
3.6. Agriculture	82
3.7. Irrigation	83
3.8. Socio-economic situation in Attappady	86
3.9. Road Facilities	90
3.10. Health	90
3.11. Education	92
3.12. Communication	93
3.13. Tribes Folk of Attappady: A Brief Account	97
3.14. Development History of Attappady	103
3.9. Problems of Unwed Mothers in Attappady	103

4.	LIFE CYCLE STRUCTURE OF TRIBALS IN ATTAPPADY A HISTORICAL SKETCH OF ATTAPPADY VALLEY	105 - 134
4.1	Settlement and demographic change	107
4.2.	Irulas of Attappady	109
4.3.	Mudugas	115
4.4.	Kurumbas	128
5.	SOCIO -ECONOMIC CONDITIONS	139 - 190
5.1.	Demographic particulars	139
5.2.	Education	143
5.3.	Health	147
5.4.	Attitudes towards social and cultural activities	152
5.5.	Economic conditions	157
5.6.	Living conditions	161
5.7.	Debts and savings	165
5.8.	Employment	169
5.9.	Expenditure	182
6.	DEFORESTATION IN ATTAPPADY.....	191 - 214
6.1.	Emerging Cultivation	61
6.2.	Tribal Cultivation	193
6.3.	Cropping Pattern: The Current Scenario	193
6.4.	Traditional Tribal Economy	195
6.5.	Environment and tribal life	201
7.	DEVELOPMENT MEASURES AND ITS FUNCTIONINGS IN ATTAPPADY.....	215 - 215
7.1.	Development measures taken in Attappady	215
7.2.	Additional Measures taken for Tribal development	218
7.3.	Contract works in different villages	231
7.4.	Development measure of Attappady Eco-Restoration Project	236
8.	SUMMARY AND CONCLUSION.....	249 - 256
8.1.	Summary	250
8.2.	Conclusion	251
8.3.	Suggestions	255

BIBLIOGRAPHY

APPENDICES

LIST OF TABLES

Table No.	Title	Page No.
1.1	Percentage of scheduled tribes in State's total population, India (1981-2001)	3
1.2	Number of tribes in India 1981-2001	6
1.3	Tribals in the forest of Kerala	11
1.4	Tribal population of Kerala (2001) – District-wise	13
1.5	Tribal population 1991	15
1.6	Selected indicators of the tribal population in India and in Kerala	16
3.1	Total land area in Attappady	72
3.2	Seasonal variations in Attappady	73
3.3	Land division in Attappady	75
3.4	Land lost by tribals in Attappady	76
3.5	Changes in land use (area in sq.km) since 1971	76
3.6	Type of forest in Attappady	79
3.7	Forest area in Kerala	81
3.8	Details of Agriculture	82
3.9	Details of irrigation	83
3.10	Production and productivity of major crops in Attappady	84
3.11	Details of cultivated area	85
3.12	Population Profile in Attappady	86
3.13	Infrastructure in Attappady	88
3.14	Birth and Death Conditions Estimates	88
3.15	Population and Literacy at Panchayaths Level	89
3.16	Livestock Population (in Nos) in Attappady	90
3.17	Health centers in Attappady	91
3.18	Educational Institutions	93
3.19	Communication Facility in the Study Area	94
3.20	Banking Facilities in Attappady	94
3.21	Financial institutions in Attappady	95
3.22	Major Events in Attappady since the 15 th Century	96

Table No.	Title	Page No.
3.23	Community wise hamlet details	101
3.24	General Description of the Attappady	104
5.1	Age wise distribution of the sample studied	139
5.2	Religion wise distribution of the sample studied	140
5.3	Caste wise distribution of the sample studied	140
5.4	Distribution of the sample according to marital position	141
5.5	Distribution of the sample according to the status in the family	141
5.6	Frequency of households according to the number of members	142
5.7	Distribution according to nature of family	142
5.8	Distribution according to level of education	143
5.9	Distribution according distance from residence to the school	144
5.10	Response about whether they got any aid for their education	144
5.11	Response about whether they got any aid for the Education of their children	145
5.12	Response about the source of aid received	145
5.13	Education they like to give to their children	145
5.14	Response about whether they provide sufficient facilities to the children for their studies at home	146
5.15	Reason for not providing sufficient facilities	146
5.16	Suffer from any type of illness	148
5.17	Whether the Health condition that permits them to continue in their occupation	148
5.18	Whether the illness is related to the work they are doing	149
5.19	Response about them treated for illness	150
5.20	Reason for not treated for illness	150
5.21	Reason for the continuance in occupation even when the health condition is not good	151
5.22	Response about getting nutritional diet for balancing the health	151
5.23	Response about getting any financial aid for the treatment of diseases	152
5.24	Source of getting any financial aid for the treatment of diseases	152
5.25	Response about the interest in cultural programme	153
5.26	Type of entertainment they like	153

Table No.	Title	Page No.
5.27	Response about the interest in performing cultural activity	154
5.28	Response about the participation in cultural activities	154
5.29	Feeling experienced while engaged in dance/music	155
5.30	Response about to what the culture is related	155
5.31	Response about their interest in culture	156
5.32	Response about reading or listening newspaper	156
5.33	Frequency of listening the radio	157
5.34	Status of the respondents in the earning of income in the family	157
5.35	Occupational status of the respondents	157
5.36	Subsidiary occupation of the respondents	158
5.37	Income per day of the respondents	159
5.38	Number of days of employment in a month	160
5.39	Estimated monthly Income of the respondents	160
5.40	Type of Dwelling	161
5.41	No of rooms in the house	162
5.42	Nature of tenancy	162
5.43	Status of land on which the house is built	163
5.44	Area of land on which the house is built	163
5.45	Value of the house	164
5.46	Physical Asset	164
5.47	Electrification of house	165
5.48	Response about their debt	166
5.49	Classification according to amount of debt	166
5.50	Interest on debt	167
5.51	Purpose of money borrowed	167
5.52	Response about from whom they borrow	168
5.53	Mode of Repayment	168
5.54	Response about saving	169
5.55	Number of days employed as hired labour in a week	170
5.56	Number of male members goes for employment in other village	171

Table No.	Title	Page No.
5.57	Number of days in a month they get work	172
5.58	Wages per day received	172
5.59	Number of respondents goes for foraging in different Panchayaths	173
5.60	Land available for agricultural purpose	174
5.61	Number of respondents going for animal husbandry 185 in different panchayaths	174
5.62	Membership in any tribal organisation	175
5.63	Unemployment in their village	175
5.64	Source of support during the period of unemployment 186	176
5.65	Number of women in Labour force in their household 187	177
5.66	Number of adult men in labour force	177
5.67	Number of dependents in the house hold	178
5.68	Response about cultivation if they get fertile land	178
5.69	Reasons for not cultivating if they get fertile land	179
5.70	Opinion about the knowledge of cultivating different types of agricultural crops in the land	179
5.71	Opinion about if their family have been an ownership of land in the past	180
5.72	Reasons for land lost	181
5.73	To whom the land was lost	181
5.74	Average expenditure of all the respondents on the items specified	182
5.75	Average expenditure on each item of expenditure among the respondents in three Panchayath	183
5.76	Percentage of expenditure on each item to total in three tribal areas	184
5.77	Results of ANOVA of House hold items	185
5.78	Results of ANOVA of expenses on religious and cultural activities	186
5.79	Results of ANOVA of expenses on personal expenses	187
5.80	Correlation of expenditure of each component item on total expenditure of all data	187
5.81	Correlation of expenditure of each component item on total expenditure of tribals in Agali Panchayath	188
5.82	Correlation of expenditure of each component item on total expenditure of tribals in Pudhur Panchayath	189

Table No.	Title	Page No.
5.83	Correlation of expenditure of each component item on total expenditure of tribals in Sholayoor Panchayath	190
6.1	Response about inhabitants of the area	201
6.2	Response about the Change in the life of community in the past and in the present	202
6.3	Reasons for change in the life of community	203
6.4	Main reasons for the present condition	204
6.5	Response about extent of relation of their life Strategy with environment	205
6.6	Source of water for drinking	205
6.7	Source of water for Washing /bathing	206
6.8	Response about the scarcity of water in the area	207
6.9	Treatment of water for using	207
6.10	Source of lighting	208
6.11	Source from which the fuel is collected	208
6.12	Number of members in the family going to collect NTFP	209
6.13	Responses to the availability of NTFP	209
6.14	Percentage of respondents engaged in NTFP collection	6.14
6.15	Response about toilet facility	211
6.16	Response about waste disposal	211
6.17	Number of time baths in a day	212
6.18	Number of respondents who responded the availability of facilities	213
6.19	Distance travelled for collecting fuel wood	213
6.20	Response about who is doing the household work	214
6.21	Number of people migrated to other places	214

LIST OF FIGURES

Figure No	Title	Page No
3.1	Trend in percentage of tribal and non-tribal population in Attappady	87
5.1	Percentage response for the reasons for not providing sufficient facilities for their children's study	147
5.2	Percentage of response showing the relation between the work they are doing and health condition	149
5.3	Percentage of response about the entertainment they like	154
5.4	Occupational status of the respondents	158
5.5	Type of Dwelling of the respondents	161
5.6	Figure showing the Physical Assets of the respondents	165
5.7	Percentage of respondents engaged in different number of days in three tribal areas	170
6.1	Crop Succession and Resource Degradation	194

Chapter 1

Introduction

INTRODUCTION

As per 2001 census tribes constitute 84.4 million people which accounts around 8.2 per cent of India's population. The concentration of tribal population is seen in states like Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh, Assam, Meghalaya, Tripura, Mizoram, Arunachal Pradesh, Manipur, Nagaland, Madhya Pradesh, Bihar and Orissa and to a lesser extent in Andhra Pradesh which is bounded by river Narmada in the north and river Godavari in the South east. The tribal people generally occupy the slopes of the mountains. The tribals also inhabit the tract extending from the western coast of Gujarat and Maharashtra passing through central India up to the north-eastern region.

Most of the tribals are concentrated in the central belt of the country comprising of Gujarat, Maharashtra, Rajasthan, Madhya Pradesh, Andhra Pradesh, Orissa, Bihar and West Bengal. The largest tribal population is found in Madhya Pradesh. A little less than one fourth of the total scheduled tribe population resides in Madhya Pradesh. The extent, to which a state's population is tribal, varies considerably. In Lakshadweep and Mizoram the tribes constitute more than ninety per cent of the population. In Northeastern states of Meghalaya and Nagaland more than eighty percent of the total population are tribals followed by Arunachal Pradesh and Dadra And Nagar Haveli with nearly two third of the population, between twenty and thirty five per cent in Assam, Manipur, Sikkim, Tripura, Madhya Pradesh and Orissa. Nearly 10 per cent in Gujarat, Rajasthan, Maharashtra, Assam, and Andaman and Nicobar Island, nearly six per cent or less in Himachal Pradesh, Karnataka and West Bengal and one or less than one per cent in Kerala, Tamil Nadu, Goa, Daman and Diu are tribals.

Scheduled Tribes (ST) have been enumerated in 25 out of the 30 States and Union Territories (UTs). The sharpest decline in tribal population is noticed in Arunachal Pradesh where the proportion has declined from 69.82 per cent in 1981 to 63 per cent in 1991. Out of the 12 States and UTs, in Manipur, Meghalaya, Mizoram, Nagaland and Tripura, the proportion of ST population has increased by more than one percentage. In the remaining states and Union

Territories the proportion of ST population increased marginally during 1981-1991. Almost a similar trend has been found in the 1991-2001 period. Lakshadweep has an increase in ST population.

In India there are six tribal zones where tribals are highly concentrated.

The first tribal zone is the North-Western Tribal Region which comprises of mainly the central Himalayan and western Himalayan regions, including sub-Himalayan areas stretching from the foot of the Aiwalik hills to Dehra Dun district of Utharanchal to the northern bordering traits of Lahul-Spiti in Himachal Pradesh and Ladaakh in Jammu and Kashmir. There are eight hill districts in Uttaranchal, namely, Chamoli, Uttarkashi, Tehri, Puri and Dehra Dun of Garhwal division and Pittorgarh, Almora, Nainital of Kumaon division. Some regions remain snow-clad for four to five months in a year.

The second tribal zone is the Western Tribal Region, which comprises of some parts of Rajasthan, Gujarat, Maharashtra, Dadra and Nagar Haveli, Goa, Daman and Diu. Some portions of this region are arid and semi arid while some are in high rain fall zones of western India.

The third and important tribal region is the Southern Region which comprises of Karnataka, Kerala, and Tamil Nadu. The region in general is of high rainfall and a series of undulations covered with dense forests where we find Dravidian-speaking tribal communities.

The fourth tribal concentrated zone is the Central Tribal Region, stretching between the plateau and hilly belt of Andhra Pradesh, Madhya Pradesh, Orissa, Bihar and parts of West-Bengal.

Table 1. 1

Percentage of scheduled tribes in State's total population, India (1981-2001)

NORTH EASTERN REGION	1981	1991	2001
Assam		12.82	12.41
Manipur	27.30	34.41	32.31
Meghalaya	80.58	85.53	85.94
Nagaland	83.99	87.70	89.15
Tripura	28.44	30.95	31.05
Arunachal Pradesh	69.82	63.66	64.22
Sikkim	23.27	22.36	20.60
Mizoram	93.55	94.75	94.46
NORTHERN			
Himachal Pradesh	4.61	4.22	4.02
Uttar Pradesh	0.21	0.21	0.21
CENTRAL			
Madhya Pradesh	22.97	23.27	23.21
WESTERN			
Gujarat	14.22	14.92	14.76
Maharashtra	9.19	9.27	8.85
Rajasthan	12.21	12.44	12.56
Dadra and Nagar Haveli	78.82	78.99	62.24
Goa	0.99	0.03	8.85
Daman and Diu		11.54	0.04
SOUTHERN			
Andra Pradesh	5.93	6.31	6.59
Kerala	1.03	1.10	1.14
Karnataka	4.91	4.26	6.55
Tamil Nadu	1.07	1.03	1.04
ISLAND			
Andaman and Nicobar	11.85	9.54	8.27
Lakshadweep	93.82	93.15	94.51

Source: Census Report, 2001.

The fifth tribal zone is the North-Eastern Tribal Region, which includes states of north-eastern India. The region is hilly but some portions are dotted with dense forest.

The sixth tribal region is the Island Region which comprises of Andaman and Nicobar Islands as well as Lakshadweep region. People are more or less isolated here.

1.1. Tribal situation in general

The relationship of the tribals with their physical environment is intimate and direct and by the very nature of their habitat and ecology. The tribals depend heavily on their forest environment for their livelihood, shelter, occupation and employment. Considering the fact that the tribals and their habitat constitute a system, the objective is not to destroy the forest, but to preserve and perpetuate it, because it is a multifaceted resource for sustenance and survival. During the last few decades large-scale reduction in the vegetation cover has been affected in various parts of the country due to installation of development projects, setting up of industries and townships and to provide agricultural land to development oriented displaced populations. This indeed has caused substantial reduction in the forest base of the country.

The symbiotic relationship of the tribals with forests is a trite fact. Tribals derive both directly and indirectly a substantial amount of their livelihood from the forests. They are talented to build their houses with timber, bamboo and reeds and practises cottage crafts with the help of local raw materials, which they procure from their forest environment. They also obtain herbs and medicinal plants, which have therapeutic value, both curative and preventive. Their religion, folklore and world-view are also woven round the spirits and deities of the forests.

Tribals have their own system of soil and forest conservation, as they are intimately concerned with the preservation and continuance of forests, and exemplify the age-old serene pattern of coexistence between man and nature. In fact, the tribal societies manifestly demonstrate that there are still ways of living

harmoniously with nature without recklessly exploiting and destroying it. As they were the original human settlers in the forest they husbanded the forest as a resource for fulfilling their basic needs and they optimized its use as a lanced productive eco-system. It was and is still endowed with spiritual ethos for the tribals in which trees, stones, water-springs, hills and lands get identified with abodes of gods and goddesses. Therefore, forest to a large measure, has been the determinant of corporate tribal ethos.

Forest is a resource to the tribes not merely in terms of fulfilment of basic needs but also as the very foundation and determinant of their culture. It is a perennial source of food, shelter, redress, veneration and romance. Life of tribals revolves around collection and sale of minor forest produce, such as, shrub and fallen wood for fuel, small timber, bamboo, leaves, nuts, fruits, cherries, honey, resin, lac, herbs, hides, skins and feathers etc. This activity kept tribal women always engaged in the forest around their habitat. For the tribals forest represented a form of renewed exploitable resource, which required no human effort for its maintenance.

Since Independence, economic development has been associated with shrinkage and destruction of forests. There is an ever increasing demand for land for setting up of industries, for launching of multi-purpose development projects, for farming and settlement, and for all these endeavours the forests meet the disaster. Therefore, forests are under gravest threat. Between 1951 and 1985 over 5000 hectares of forests have been cleared in India for the extension of agriculture, industries and various other development projects.

Table 1.2**Number of tribes in India 1981-2001**

COUNTRY/STATE	1981	1991	2001
India	557	573	577
Assam	14	14	14
Manipur	29	29	29
Meghalaya	14	17	17
Nagaland	5	5	5
Tripura	19	19	19
Arunachal Pradesh	12	12	12
Sikkim	2	2	2
Mizoram	14	14	14
Bihar	30	30	30
Orissa	62	62	62
West Bengal	38	38	38
Himachal Pradesh	8	8	8
Jamu and Kashmir		8	12
Uttar Pradesh	8	8	8
Madhya Pradesh	46	46	46
Gujarat	29	29	29
Maharashtra	47	47	47
Rajasthan	12	12	12
Dadra & Nagar Haveli	7	7	7
Goa	5	5	5
Daman and Diu		5	5
Andhra Pradesh	33	33	33
Kerala	35	35	35
Karnataka	49	49	49
Tamil Nadu	36	36	36
Andaman and Nicobar Island	6	6	6
Laskhadweep			

Notes : Inhabitants of Laskhadweep who and both of whose parents, were born in Lakshadweep have been treated as Scheduled Tribes

Source: Census of India 1981, 1991 and 2001 Series-1 India Part 2B – (iii) PCA ST.

As a consequence of this, many tribal families have been evicted from their respective natural forest habitats and they have been forced to move to mining, in some of the industrial and urban areas steadily in a phased manner in order to eke out an existence. This sort of migration of the displaced tribal families provided motivation and encouragement to their kinsmen and friends, who had not been directly affected to follow this move because of economic constraints emanating out of the restriction on the free exploitation of forest resources. And, moreover all the tribes, whose mainstay of the economy was shifting cultivation, have found it difficult to secure enough fallow land for the practice of the same, obviously for two reasons, namely, (1) their population is increasing and thus they need more land, and (2) their traditional rights on forests have been substantially curtailed with the imposition of restriction on their free exploitation of forest resources and use of forest land .

Tribals are losing command over land because of inadequate appreciation by the administrative machinery of the man-land relationship in tribal areas, which is the quintessence of tribal life. Studies have revealed that when this man-land equation has been disturbed, it has proved to be disastrous to tribal economy and life, and they have been forced to quit their age-old habitat. Abandonment of the natural habitat has brought about a deleterious effect on the economy and life of the tribals. The tribals were in the primary sector of economy and pursued indifferent and diffused economic mode, but were forced either by the change of environment or by their migration to abandon it because of loss of control and traditional rights over the natural resources. Now they have taken to several non-traditional economic activities. The tribals, who have moved out of their habitats, have eventually, encountered a sudden disruption of their social life, because it has so happened that members of a lineage and some time even brothers, have moved to different places for livelihood, and thus have been separated from each other. This has resulted in the break down of socio-economic interdependence. It takes usually a long time to revive and recreate a visible social network. This indeed affects their social life.

In tribal societies men and women have very specific roles to play. With the rapid changes in the environment of migration to a new place, the traditional mode of division of labour gets disturbed. However, the onus of management of the family at this critical phase of life too revolves on the housewife. She makes strenuous efforts to pull the family out of the existing predicament. This fact bears ample testimony to the important roles, which tribal women play in their social life.

Whenever tribal families move to urban, industrial or mining areas so as to eke out an existence, they are confronted with strange experiences and insurmountable problems. During the first few days the tribals remain completely disillusioned and despondent in the strange environment, because of lack of food, water, shelter, and place for defecation, lack of friends and neighbours. Of course the problem somewhat eases out with the passage of time. In this endeavour the role of tribal women is extremely important. Their strenuous efforts bring hope and solace to every member of their family. They purchase food and provisions out of their concealed savings, procure water from far off places, collect firewood and prepare food for the family. Their selfless efforts, indomitable fortitude and unflinching devotion and sincerity of purpose together enable them to realize this dear objective.

In this kind of a distress situation a tribal woman treats her husband as one of her children. This is of course a metaphor, but it brings to light the fact that most often the sense of responsibility of a tribal man is not better than that of a child. Temperamentally, a tribal husband behaves as a supreme lord towards his wife, and expects her to work for him, look after his crops and assets, bear children for him, serve food to him in time, pay for his drinks and keep him in good humour. A tribal man loves to remain inebriated always.

It has been observed that whenever any drastic change in the environment of tribal habitat occurred, the landless tribals preferred to migrate to an urban, industrial or mining area where their kith and kins or co-villagers are already there. Because, one initially looks up to fellow-tribesmen for guidance for assistance in securing employment.

Tribals never experienced the scourge of poverty in their traditional habitat and environment, because forest was a perennial and diverse source of edible items. But under the changed conditions and in the new surroundings they experience the dire and stark conditions of money economy. Here too tribal women are quick to rise to the occasion, and in addition to their domestic responsibilities, they are constrained to undertake wage labour. Being unskilled, they only market their physical labour, and unscrupulous employers unhesitatingly exploit their helplessness and make under-payment to them. The change in the nature of work and work-habits terribly affect the mind and body of tribal women.

The changed environment makes the tribals to feel like caged animals and birds. Particularly tribal women feel more uncomfortable where they are forced to live. They are unable to articulate in the changed environment and therefore feel miserable. This brings about a typical psychic affliction to tribal women. The forced change from natural, exuberant and free environment to an artificial constricted and tricky environment often irretrievably confuses tribal women.

1.2. Tribals in Kerala

In Kerala there are 35 sects of scheduled tribes, which constitute 1.0 per cent of the total population. Building people's assets – such as human, natural, physical and social and empowering them to fight poverty has been in the centre of poverty eradication for the past few decades. The ownership of or access to land is commonly identified as a key asset. Tribal women depend directly on nature. Environmental degradation, soil-erosion, reduced soil fertility, deforestation and depletion of fresh water declining availability of fresh water affect them severely. The scheduled tribe communities in Kerala are generally categorized as 'Adivasis'. The social and historical background of the Adivasis is not clearly established. Communities like Kadar, Paniyar, Vedar, Ulladan and Urali are generally considered as indigenous and others like Mala Arayar, Muthuvar, Koragar, Kurichiyar are settlers in Sahya ranges. There are 35

communities, recognized as Scheduled Tribes and 13 others are classified as Other Eligible Communities in Kerala.

The largest concentration of tribals can be seen in the Northern district of former Malabar, which was under the direct administration of the British till 1947. The highly dominated tribal groups are Adiya and Paniya who constitute 27 per cent of the tribal population of the state. They were brought to Wayanad in the 18th century by the landlords for working under them as serfs from the neighboring forest. Attappady occupies the second place in the concentration of tribals in Malabar. Irula, Muduga and Kurumba are the three dominated tribal groups in Attappady. They were living free until the middle of 1950s. But due to the large scale immigration of non-tribals from Travancore-Cochin area, their living conditions began to deteriorate. The Gownders from Tamil Nadu also migrated to their land and they destroyed the forest and pushed them in to hopeless stage of destruction. The small population in the princely state of Cochin became labourers engaged in the extraction of forest produce.

By the end of 18th century they had come under the control of Government as settled agriculturists. During the 1920's tribes were given subsidies to develop and extend irrigation facilities. The Mala Arayan, Muthuvan, Urali and Kanikar became settled agriculturists towards the end of the 19th century. No tribal area in Kerala has been so far notified as "Scheduled Area". As all the Scheduled tribes of all the states come under the purview of this article, the state Governments that have no scheduled areas are also constitutionally bound to enact suitable legislation to protect land rights

Women constitute half of tribal population. Tribals who once enjoyed complete freedom and autonomy in their region are now suffering from miseries and hardships. The natural resource base is closely linked to the livelihood and well being of the poor rural households. Shiva (1991) argues that "economy and ecology are not opposed but coverage in the survival economies of the third world poor, however, in the context of market oriented development they have been rendered contradictory. Poverty, mal-nutrition, illiteracy, socio-economic and sexual exploitation by the non-tribals, depletion of the traditional resource

base and state restriction on its use characterize the social reality of the tribals of post-colonial Kerala. On most indicators of well-beings, the tribals fall far below the Kerala average”.

Table 1.3.
Tribals in the forest of Kerala

Sl. No	Districts	Male	Female	Total
1.	Trivandrum	5600	5882	11482
2.	Kollam	1073	1138	2211
3.	Alappuzha	0	0	0
4.	Pathanamthitta	2399	2395	4794
5.	Kottayam	3179	3192	6371
6.	Idukki	12136	11869	24005
7.	Ernakulam	112	105	217
8.	Thrissur	1827	1844	3671
9.	Palakkad	2672	2599	5271
10.	Malappuram	1193	1162	2355
11.	Kozhikkode	18	10	28
12.	wayanad	5122	5012	10134
13.	Kannur	1474	1479	2953
14.	Kasarkode	0	0	0

Source: Kerala Forest Research Institute, (KFRI) 1998.

Tribals lose large scale plots of cultivable land particularly due to the large scale influx of Syrian Christians from the former Travancore state. They began to encroach the large areas of lands which were used by tribals for shifting cultivation. As a continuation of this, large flow of Hindus, Muslims and Christians began to exploit their life. Large number of Kurichian and Kuruman, who were traditionally land holding tribes, were dispossessed in the wake of expansion of a land market in the forest region. In Attappady 20 per cent of tribal households were rendered

landless over a period of 25 years. The incidence of land mortgages is also high in Attappady.

The continued sexual exploitation of tribal women by non-tribals and its traumatic consequences for the victims as well as the indigenous communities to which they belong have become issues of wider concern. It is reported that most of these women are victims of non-tribal men who entice them often with false promises of marriage. Several others while working as maids or casual labourers on plantation and estates are abused by their masters or jobbers.

Development played an important role in the deterioration of the tribal women in Kerala. Today, the first and foremost problem before the tribal communities in India is how to earn and sustain a livelihood. It has assumed alarming proportions because the traditional means of obtaining livelihoods are increasingly threatened. Traditionally, tribal communities earned their livelihood from the surrounding natural resources by establishing different types of linkages. In the past fifty years, however, the access to and control over natural resources have undergone radical changes. Alongside, the process of ecological degradation has continued unabated. The present paradigm of development, emphasizing urbanization and industrialization has not only accentuated this process but has also caused displacement of tribal population from their habitat. This phenomenon is one of the main reasons for the impoverishment of tribal communities and their subsequent "loss of nerve".

Table 1.4
Tribal population of Kerala (2001) – District-wise

Sl	Districts	General			Scheduled tribes			
		Total	Male	Female	Total	Male	Female	District ST population as of States population
1	Thiruvananthapuram	3,234,356	1,569,917	1,664,439	20,893	9,890	11,003	0.65
2	Kollam	2,585,208	1,249,621	1,335,587	5,190	2,447	2,743	0.20
3	Pathanamthitta	1,234,016	589,398	644,618	6,549	3,184	3,365	0.53
4	Alapuzha	2,109,160	1,014,529	1,094,631	3,131	1,565	1,566	0.15
5	Kottayam	1,953,646	964,926	988,720	18,340	8,972	9,368	0.94
6	Idukky	1,129,221	566,682	562,539	50,973	25,510	25,463	4.51
7	Eranakulam	3,105,798	1,538,397	1,567,401	10,046	5,079	4,967	0.32
8	Thrissur	2,974,232	1,422,052	1,552,180	4,826	2,293	2,533	0.16
9	Palakkad	2,617,482	1,266,985	1,350,497	39,665	19,990	19,675	1.52
10	Malappuram	3,625,471	1,754,576	1,870,895	12,267	5,996	6,271	0.34
11	Kozhikode	2,879,131	1,399,358	1,479,773	5,940	2,924	3,016	0.21
12	Wayanadu	780,619	391,273	389,346	136,062	67,394	68,668	17.43
13	Kannur	2,408,956	1,152,817	1,256,139	19,969	9,793	10,176	0.83
14	Kasargod	1,204,078	588,083	615,995	30,338	15,132	15,206	2.52
	STATE TOTAL	31,841,374	15,468,614	16,372,760	364,189	180,169	184,020	1.14

Source: Census Report, 2001

Majority of the tribal families are below poverty line as seen in Wayanad, Idukki and Palakkad Districts. Adiya, Paniya and Kattunaikan are the three tribal communities in Wayanad District who are still in a very underdeveloped stage compared to other tribal communities there. Adiya and Paniya together form 53 per cent of the tribal population in Wayanad. Kurichya and Kuruma are the other two major tribal communities of Wayanad who have attained a satisfactory level of socio-economic advancement compared to that of these two communities. The miserable condition of the Adiya and paniya is that they were all landless agricultural labourers and slaves, till two decades ago and their full rehabilitation programmes are still underway. Kattunaikan families are primitive tribes and they have shown potential signs of quicker transition to the mainstream of development. Unlike the Kattunaikans, the Adiya and Paniya are found less sensitive to the tribal development programmes especially in the field of education. The Attappady Block of Palakkad District is the only tribal block in the State, (one of the seven ITDPs in the State) where all kinds of tribal problems usually crop up. The tribal population of the block is 24,818 (1991 Census) Kurumbas, Mudugas, Kadars and Irulas are the four major tribal communities in the block. Kurumbas and Kadars are primitive tribes. As per the 2001 census tribal population in Attappady is 28,711.

Muthuvan, Urali, Hill Pulaya, Mannan and Ulladan, Malay Araya are the tribal communities in Idukki. Among them Malay Araya are forward in all aspects compared to others. Around 92 per cent of the tribal workers in the district are still engaged in the agricultural and allied sectors

There are five primitive tribal groups namely, Kattunaikan, Cholanaikan, Kurumbas, Kadars and Koragas. According to a survey conducted by the Scheduled Tribe Development Department, their population was 16,678 during 1996-97. Their literacy rate was only 26.10 per cent.

Table 1.5
Tribal population 1991

Sl No	States	Male	Female	Total	Ratio of District ST population to State's ST population (%)
1.	Thiruvananthapuram	7860	8321	16181	5.04
2.	Kollam	1943	1941	3884	1.21
3.	Pathanamthitta	3459	3463	6922	2.16
4	Alapuzha	1407	1394	2801	0.87
5	Kottayam	8902	9094	17996	5.61
6	Idukky	25512	24757	50269	15.66
7	Ernakulam	2551	2390	4941	1.54
8.	Thrissur	1990	2061	4051	1.26
9.	Palakkad	17927	17538	35465	11.05
10	Malappuram	5213	5342	10555	3.29
11	Kozhikode	2654	2753	5407	1.68
12	Wayanad	57386	57583	114969	35.82
13	Kannur	9167	9076	18243	5.68
14	Kasaragod	14841	14442	29283	9.12
	STATE TOTAL	160812	160155	320967	100.00

Source: Census Report, 1991

Table 1.6

Selected indicators of the tribal population in India and in Kerala

Indicators	Year	India		Kerala	
		Total	Tribals	Total	Tribals
Population (In crores)	1991	846.30	67.76	29.10	0.32
Sex ratio	1991	927	927	1036	996
Literacy rate (Percentage)	1991	52.20	29.60	89.80	57.20
School admission	97-98	89.20	90.70	90.00	107.50
1-4		58.50	43.20	95.40	84.50
5-8					
Drop out rate from 1-8 classes	93-94	52.80	77.70	0.90	31.40
Primary health centers	1996	21853	3258	959	62
Sub centers	1996	132778	20355	5094	268
ICDS plans	98-99	4200	750	120	1
Poverty line (percentage)	93-94	32.27	51.94	25.70	37.34
No of seats in parliament	1999	543	41	20	Nil
No of seats in assembly	1999	4027	530	140	1

Source: Planning Commission for Tribes in India, 2000.

1.3. Primitive Tribals in Kerala

Tribal communities with pre-agricultural stage development, stagnant population and very low literacy are recognized as primitive tribes by Government of India. As per the survey conducted by the ST Development Department in 1996-97, the population of primitive tribe was 16,678 comprising of 4406 families in 389 settlements. Cholanaikkan, Kattunaikkans, Kurumbas, Kadars and Koragas are

the primitive tribes in Kerala and they constitute nearly five per cent of the total Scheduled Tribe population in the state. Of them majority are the Kattunaikkans (71.17%) and are mainly in Wayanad District. The Cholanaikkans are the primitive tribal group with the smallest population (384). The areas of habitats of primitive tribes are Nilambur (Cholanaikkans and Kattunaikkans), Attappady (Kurumbas), Wayanad and Kozhikode (Kattunaikkans), Thrissur (Kadars), Parambikulam and Palakkad (Kadar) and Kasargod (Koragas). In 1991 census the average decennial growth rate of primitive tribes is estimated as 18.71 per cent. Considering the period from 1981 to 1996-97 this rate is also slightly less than the decadal growth rate.

1.4. Constraints in Tribal Development

In spite of high human development in Kerala and its features of equity, most of the tribal communities have continued to be outliers always subject to the danger of being pushed further away from the development process. A quick analysis of the tribal situation in the state reveals the following:

1. Extreme level of poverty, deprivation and vulnerability
2. High levels of exclusion, developmental, social and economic
3. Extremely low level of empowerment-political, social and economic
4. Low level of access to entitlement
5. Practically zero participation in development matters with no autonomy in any form of decision-making
6. Poor human development with low level of literacy and access to health care
7. Rapid alienation of assets like land
8. Alarming depletion of social capital especially traditional forms of organization and leadership.
9. Quick deterioration of traditional knowledge system and cultural attainment.

10. Fast increasing tendency to use tribal people as 'cat's -paws in criminal activities like illicit distillation, cultivation of narcotic plants, stealing of forest wealth etc.
11. Dependency-inducing developmental programmes relying on distribution of benefits rather than building up of capabilities.
12. Implementation of ad hoc and stereotyped developmental programmes in the absence of proper planning.
13. Weak delivery system of public services.
14. Very weak monitoring system.
15. High level of exploitation of women by out-siders.

1.5. Role of women in the Tribal society

Life of tribal women associated with beliefs, customs, social mores, precepts, rights, and usages practiced since time immemorial, is not always conducive to the interest of women. Some of the experiences are particularly oppressive to women. Women shoulder heavy responsibilities commensurate with men, tribal customary laws like those of non-tribal societies deny them equal rights to property. Inheritance rights in most tribal society are favourable to men in general; women are entitled only to maintenance rights and expenses for marriage, while men inherit all other movable and immovable property. Even in case of societies which follow matrilineal pattern of inheritance, when it comes to land, a sharp distinction is made between 'ownership' and 'control. While ownership of land is transmitted through women, control invariably lies with men. Tribal women face many constraints in their access to common property resources.

A tribal woman occupies an important place in the socio-economic structure of her society. Unlike in non-tribal society women are not treated as drudges or beasts of burden, they are found to be exercising a relatively free and firm hand in all aspects related to their social life. Though tribal women are away from the mainstream of national life, they are not kept away from the impact of socio-economic changes affecting the neighbourhood or society in general. In the process of change the tribal woman whether she likes it or not, is forced to adhere to certain

norms which may even take away her freedom, her control over whatever primitive production factors their families possess, her control over production, her home, family and children and even her own life. The process of such alienation has an impact on the tribal woman by altering her complete life span. Her life is tagged on to her male partner's as in the case of a non-tribal society.

Since tribal communities have been subjected to various forms of deprivation such as alienation from the land and other forest resources, which however did not cease with the gaining of independence of the country, as part of a tribal society, she has to suffer and yet survive for the sake of her children and the community. Each tribe in a tribal community has its own distinct characteristic life-patterns and life styles, indicating wide variations in their cultural and economic formation. Each tribal group has its own interests and unique identity and women in these groups exclusively represent such a distinct identity. In spite of poverty, a high rate of illiteracy and ignorance prevalent in the society, the tribal woman remains honest and hard-working.

In the shift from traditional society to modern orientation, development processes have neglected both women and environment. The distinctive of Indian culture consists of its having defined life in the forest as the highest form of cultural evolution. Tribal economy is intimately connected with the environment. The forest regions are generally inhabited by the tribal communities. The problems of tribal women cannot be isolated from the problems of tribal men. These arise from their shrinking economic base due to massive felling of trees or the degradation of nature, the employment problem of tribals inescapably had a serious impact on the well-being of their children. In the present situation, it seems inevitable that their children would grow up in an atmosphere of poverty, frustration and despair.

One of the main reasons for the destruction of the living conditions of the tribals is the destruction of the traditional forest dweller economy. For centuries forest had provided them a steady supply of food, fuel, fodder and other requirements. These items were primarily the concern of women. With the destruction of forest, which is their life system, women's workload has increased,

food supply has decreased and their health and social status have deteriorated. Together with the commercial isolation of the forest which has led to its destruction, external values have entered into the society. The illiteracy of the tribals in general and the women in particular and their lack of exposure have put them to weak bargaining power.

Due to the degradation of the environment and the denial of access of women to the forest many changes have taken place in their economy. It has set in motion a process of transition of the forest dweller society from the traditional community to the new commercial, economic and cultural structure. A major change in the tribal economy has been the transition. Most of the studies of (Fernandes et.al, 1987) show that environmental deterioration increases distances and the transition from shifting to settled agriculture involves higher workload for women.

As a result of the destruction of the environment and increasing pressure from the village many men have to migrate to other region, which increases the workload of women. Thus the economic status of the family particularly of women deteriorates due to the migration. Moreover, in the absence of men, women are left to fend for themselves and deal with the exploitative elements such as moneylenders, businessmen and landlords. Tribal women with low literacy are especially susceptible to this situation, leading to land alienation, cheating in weighing and pricing and sexual exploitation.

As outside values infiltrate into closely-knit communities like those of tribals, traditional safeguards of norms and values tend to break down, rendering them even more vulnerable. In case where the attitude of the male changes after their return this may cause further complications for women in terms of adjustment.

The majority of the tribal women had not reaped any particular benefit from the technological development that was taking place. Their children are strongly affected by their social situation, they remained badly handicapped by the corrosive effect of poverty as well as by the prejudices of the non-tribals. One may cure their poverty simply by improving their economic situation but the social problems that have caused by it and which continue to handicap many of them would require a

wide range of remedial services. At present, services in the health, educational and environmental spheres are too inadequate to bring about a significant improvement in their social and economic situation.

Due to environmental degradation and decline in the availability of minor forest produce, the nutritional status of tribal women has been severely affected. The reduction in the extent and quality of land available for shifting cultivation, the disappearance and reduced availability of minor forest produce along with the forest have thus led to a decline in the quality and quantity of food consumed especially by those families who get little or no food grains from the private lands. While these factors would affect everyone, they have special significance for women, since they are the providers of food to the family. In their effort to cater to the needs of everyone, there is every possibility of discrimination against women and children. Thus in food intake, deforestation affects the lower classes more than the upper classes, women more than men. Thus the developmental policies have accentuated existing inequalities and have introduced new ones, also among the tribals as they have done elsewhere in India (Kurian, M.V, 1987)

The consequences of inadequate and low nutrition food intake combined with the extra workload are bound to show on their physical health. Physical deterioration has been compounded by the non-availability of many medicinal herbs or roots, derivatives of animals etc which in the past served as effective medicine in times of illness. One fact to be noticed here is that as a result of nutritional deficiency and non-availability of food they do not get enough food for their children. Several studies indicated that as a result of environmental degradation and other related factors, mal-nutrition and ill health are much common among tribal women than men. They receive little medical attention. Besides the additional workload leaves them with little time and energy to visit nearby hospitals, which are generally far from the village.

Thus one notices that economic factor alone does not fully explain the lower status of women. Environmental deterioration also does not explain the negative impact on women fully. It has to be studied within the context of ongoing discrimination against women. Environmental deterioration itself built on the

cultural factors enhances inequalities. The special difficulties that the women face, their extra ordinary work burden or lack of access to health care, do not arise out of ecological deterioration. They are located in the sexual division of labour marked by double work burden (at home and outside) and by the specific nature of task they do, and in the unequal distribution of women's inferior status in the household and from lack of control over cash and productive resources like land. But given this situation, environmental destruction aggravates women's already acute problems in a way very different from that of men.

An obvious consequence of additional workload, mal-nutrition and disease is deterioration of women's status. A major factor in the deterioration of the environment is the weakening of the tribal community norm of mutual aid. Shortages of land, food and other resources have introduced competition among individuals and have resulted in class formation. With these divisions the earlier sense of sharing has disappeared. This has affected women's condition more than that of men, since they are responsible for his day today running of the household. Lack of assistance has resulted in additional workloads for them. The poorer families have to depend on the richer ones for income from agricultural labour, but not for support in times of need. Individualism and the weakening of the sense of community affect the tribal women in an acute sense. When the whole family or community owns the property women too are an important part of a larger group. With the individual taking the place of the community all property will be owned by the male.

If the destruction of forest, ownership of property, additional workload, acceptance of external values and the consequent subordination of women are the main factors behind the deterioration of their situation then the solution attempted should deal with these situations. The weakening of the tribal community and culture and the consequent deterioration of the situation of the tribals in general and their women in particular, began with the destruction of forest. The contact between the tribals and non-tribals has increased. Very often indebtedness and poverty compel the tribes to lease or mortgage their land to money lenders and eventually part with the land. Of late, the problem has become serious and the tribes even indulge in outright sale of their land to non-tribals and very often for

nominal consideration. Unless this state of affairs is rectified immediately, it will lead to a very disastrous situation reducing the poor, innocent and illiterate tribes whose mainstay is agriculture, to abject poverty and misery.

1.6 Tribal society and Development

Development in common parlance means uniform socio-economic progress for the group as a whole. Patnaik (1972) writes “it is a complex concept encompassing upward qualitative and quantitative changes in the base and super-structure of any society. It includes improvements in material and supra-material or cultural level of living. The prime mover of development is the production mode of any social formation, as the slow rate of changes in the level and structure of economic activities influence negatively other linked aspects of living of life-styles.”

The tribal development programmes will not gain speed as long as complex formal structure of various departments is accorded prominence. The purpose of formulating plans in a rational manner is to facilitate their successful implementation (sharma, 1966). The main problem of tribal population, with a very few exceptions, is abject of poverty. Coupled with this is the poor literacy performance or lack of education.

One does not say that the tribal society has to remain unchanged but only that it should join the national mainstream in such a way that their economy, culture and social system are not completely destroyed. Some studies reveal that forest economy depends more on women than men. It is the tribal community in general and women in particular who have preserved forests and other natural resources by keeping a balance between human needs and environmental imperatives.

Sinha (1967) observes, “The tribals are isolated in ecology, demography, economy, politics and other social behaviour from other ethnical groups. Such as historical image differentiates the tribal communities from the cast and provide tribal identity. The tribal view of ownership of land, which they cultivate, is sharply different from the concept of ownership of land by the state, introduced

after the advent of British in India. The conflict between these two socio-economic orders is the root of many problems which tribals in general and the tribal women in particular face today. Tribal women's status is severely affected by changes in land structure such as land alienation and the dispossession of the tribal lands and the ownership of the tribals to various non tribal affluent classes. Land and forest are the twin major sources of living of the tribals and they have become as close as a part of their life, which became a philosophy and prime mover of their civilization. The alienation from the land along with other factors led to the alienation of tribals from the forest. Large scale tree felling and deforestation in the tribal areas, apart from all its attendant effects such as imbalances in the ecosystem, denudation, and desertification of the lands and so on, had led severe stresses and strains on the life of tribal women's life"

The large scale prevalence of the tribal bonded labour system is attributed to many structural and administrative reasons. But the adverse effect due to bonded labour, despite its variant forms is seen more on women. The plight of the tribal bonded women is worsening with the expansion of the monetization of the tribal economy, and the expanding industrial bases. Encircled with poverty, helplessness, prolonged indebtedness, tribal women are more exploited in this situation.

1.7 Constitution and Scheduled tribes

There are 20 articles and two schedules (Fifth Schedule and Sixth Schedule) in the Indian constitution concerning the welfare of Scheduled Tribes. The constitution demands legislative or executive measures for the reconstruction of the unequal social order by corrective and distributive justice through the Rule of Law. Distributive justice (article 46) also connotes the removal of economic inequalities and rectifying the injustice resulting from dealings or transactions between unequals in society. Similarly article 39 (b) enjoins upon the state to frame its policy towards securing that the ownership and control of the material resources of the community are so distributed as best to serve the common good.

The term 'Tribe' is nowhere clearly defined in the Constitution and in fact there is no satisfactory definition anywhere. Report of the Scheduled Areas and Scheduled Tribes Commission (1961) has made some important comments in this

context. It says that “to the ordinary man the word suggests simple folk living in hills and forests, to people who are a little better informed, it signifies colourful folk, famous for their dance and song, to an administrator it means a group of citizens who are the special responsibility of the President of India, to an anthropologist it indicates a special field for the study of a social phenomenon. In their own way all these impressions are correct.” (Report of the Scheduled Areas and Scheduled Tribes Commission (1961))

The Constitution has defined a ‘tribe’ to the extent that the Scheduled Tribes are “the tribes or the tribal communities or parts of or groups within tribe or tribal communities” which the President may specify by public notification (Article 342), this ambiguity some times leads to confusion in classifying and identifying a tribal population for declaring it a Scheduled Tribe, but it should not be regarded as a hindrance in implementing tribal welfare programmes.

With the dawn of independence and adoption of the Constitution of free India, the responsibility for their welfare was placed on the popular Governments through the President and Governors. The result of this major provision was far-reaching. Following is the description of various constitutional provisions for the safeguard of Scheduled Tribes in the whole of India,

The “ethno-social groups”, as a whole category may be said to have been subsumed under “the sections of the people”, promotion of whose “educational and economic interests’ is declared by Article 46 to be one of the Directive Principles of State Policy. The same article further mentions the Scheduled Castes and the Scheduled Tribes as particular varieties of the category of the weaker sections of the people. There are a lot of articles dealing with the empowerment of tribals, these are:-

1. Article 46 of the Constitution declares that-“The State shall promote with special care, the educational and economic interests of the weaker sections of the people, and, in particular, of Scheduled Castes and the Scheduled Tribes and shall protect them from social injustice and all forms of exploitation”. Although the two constituents of the whole category of “weaker sections” are much more specially treated and

- highly privileged under the Constitution, there is a higher grade of special treatment provided for the Scheduled Tribes. In the Fifth Schedule, which is the charter not only of the scheduled areas but also of the scheduled Tribes, the Scheduled Castes do not figure and the latter have no other special provision for themselves alone. "It stands as the clearest testimony to the full appreciation of the nature and extent of the problems of the Scheduled Tribes by the framers of the Constitution"
2. Other articles empower the President to make arrangements for the implementation of the high ideals of Article 46.
 3. Article 244 empowers the President to declare any area, where there is a substantial population of tribal people, as a Scheduled Area under the Fifth Schedule or in Assam, as a Tribal Area under the Sixth Schedule.
 4. Article 339 lays down that "The executive power of the Union Govt. extends to the giving of directions to a State as to the drawing up and execution of schemes specified in the direction to be essential for the welfare of the Scheduled Tribes in the State".
 5. Article 275 of the Constitution provides for assistance to the states for the implementation of the provisions of the Constitution. "There shall be paid out of the Consolidated Fund of India as grants-in-aid of the revenues of a State such capital and recurring sums as may be necessary to enable that State to meet the costs of such schemes of development as may be undertaken by the State with the approval of the Government of India for the purpose of promoting the welfare of the Scheduled Tribes in that State or raising the level of administration of the Scheduled Areas therein to that of the administration of the rest of the State."
 6. Articles 330, 332 and 334 provide for reservation of seats for Scheduled Tribes in the House of the People and the State Legislatures.
 7. Article 335 provides for reservation in the services. The policy of the Government of India with regard to communal representation in the services immediately before the coming into force of the new

Constitution was that, in appointments made by open competition, 12.5 per cent of the vacancies filled by direct recruitment were reserved for candidates belonging to the Scheduled Castes, while in regard to posts and services for which recruitment was made other wise than by competition, the principal communities in the country were given appointments in proportion to their population. The Government of India have now reviewed their policy in this regard in the light of the provisions of the Constitution which lay down, that with certain exceptions, no discrimination shall be made in the matter of appointments to the services under the state on grounds of race, religion etc. The exceptions are Scheduled Castes and Scheduled Tribes.

8. Article 15, 16 and 19 make it possible while legislating on any matter to take into consideration the special conditions of the tribals in the matter of enforcing the provisions relating to the equality of all citizens. The object is to safeguard their interests and way of life.

After enumerating the above mentioned provisions of the Constitution, it will be in the fitness of things to review the Governor's powers under Fifth Schedule which go a long way in safeguarding the interests of the tribal population in any realistic and concrete way.

1.8 Tribe's Advisory Council

The Fifth Schedule, Part B, paragraph four provides for the compulsory setting up of Tribes Advisory Council in each state, having or not having Scheduled Areas but containing Scheduled Tribes. It should consist of not more than twenty members of whom as nearly as three-fourth shall be the representatives of the Scheduled Tribes in the legislative assembly of the state. The duty of the Tribes Advisory Council is to advise on matters pertaining to the welfare and advancement of the Scheduled Tribes in the state. The Governor makes rules prescribing or regulating number of the members of the council, mode of their appointment and of chairman, officers and servants and the conduct of its meeting.

1.9 Integrated Tribal Development Programmes

An integrated programme for intensive development for tribal development was introduced in India in 1975 in the form of Multi Purpose Block. The main aims of the programme are improvement of irrigation, soil conservation, land reclamation, animal husbandry, agriculture, rural housing, rural arts and crafts, health and sanitation, communication and education. This will enable us to evaluate the on-going programmes in a better perspective instead of viewing them within the boundaries of cost-benefit-analysis. Some of the pre-action considerations were the large scale land alienations, inadequate land resources, tribal indebtedness, low level of education, low level of marketing facilities, inadequate communication systems, low level of industrial skills, poor facilities for health care, low level of utilization of electricity etc. It is perceived in 1975 that out of 3,500 tribal families in Attappady nearly 2,000 were deprived of their lands due to various forms of exploitation. Studies based on tribal indebtedness and consequent land alienation revealed the dangerous magnitude of the problem existing in the Attappady Valley. So credit and marketing are considered to be the weakest links in tribal economy and the greatest source of exploitation of the tribal communities by non-tribals. The social disabilities of the tribals are also considered in framing the approach to development. Essential features of such a planned approach perceived the following aspects,

- (a) Socio-economic complexities of tribal life demand an integrated approach to development in which economic handicaps and social disabilities have to be attacked simultaneously.
- (b) Primary focus should be on the betterment of the economic status of the tribal communities and social development programmes.
- (c) Choice of production programmes should be such that they should fit in with the skill, attainment and managerial capabilities with regard to use of productive resources.
- (d) A strong institutional support has to be built up which should be responsible for the implementation of economic and welfare programmes.

- (e) The authorities entrusted with the task of the social and economic emancipation of the tribal communities will have to be of high calibre and appropriately motivated to it.

The main emphasis given in the strategy for development is the strengthening of the tribal economic base. The programmes for economic and social development demanded the creation of a number of institutions to channel supplies and services including legal and administrative support. Concurrently appropriate infrastructure development has to be taken up. The project must integrate with the resource endowments and the level of development of the tribal communities inhabiting the valley must mainly determine the formulation of strategy which include the following: (a) utilization of resources, (b) restoration of alienated tribal land, (c) special Action Plan for Kurumbas, (d) animal husbandry as a source of supplementary income, (f) credit and marketing facilities through Co-operatives and Co-operativisation of the entire community, (g) small tribal farmers should be assisted by S.F.D.A. Projects, (h) development of road and communication, (i) providing maximum impetus to education, (j) imparting training to tribal labour for acquiring new skills, (k) provision of health and medical care and health education to all people concerned, (l) provision for adequate drinking water supply to all hamlets, (m) housing schemes, (n) administration of the schemes with a forward looking, innovative and highly sympathetic administrative apparatus, (o) continuous follow-up to programmes implemented, (p) I.T.D. project should also develop a proper man-power resource with necessary incentive package.

The major activities undertaken by the project are classified as three programmes such as Integrated Rural Development programmes (IRDP), Jawahar Rozgar Yojana (JRY), Development of Women and Children in Rural Areaa(DWCRA), Integrated Waste Land Development Project (IWDP), Indira Avas Yojana (IAY), Community Development Programme (CDP), Central Rural Sanitary Programme (CRSP), Ganga Kalyan Yojana (GKY), Attappady Valley Development Project (AVDP), Ten Million Well Scheme (MWS), Training of Rural Youth for Self Employment (TRYSM) and MWS (Housing).

Tribal development programmes and policies have, to a great extent, degraded and alienated the tribal women in a special way “in spite of all the development activities during the last three and a half decades after independence, the tribes folk continue to remaining the lowest strata of society. The development constraints of tribe’s folk are

1. Land alienation
2. Loss of source of subsistence of tribal communities
3. Lack of housing conditions
4. Low income
5. Low literacy
6. Lack of communication facilities

1.10 The Fifth Schedule

Article 244 (I) of the Indian Constitution provides for a Fifth Schedule, which can be applied to any State other than those in North-East India. The Governors of the concerned States have been given extensive powers, and may prevent or amend any law enacted by Parliament or the State assembly that could harm the Adivasis’ interest. Furthermore, the Governor can inform State Government’s administration of the area, by ascertaining the views of a Tribal Advisory Council (TAC).

The President while scheduling omitted some Adivasi areas. In 1976, Parliament amended the Fifth Schedule to enable the President to increase the scheduled areas. Central Government directed the State Governments to send proposals for scheduling. However, Adivasi areas in Karnataka, Kerala, Tamil Nadu, Uttar Pradesh and West Bengal remained un scheduled, and the eight States with scheduled areas - Andhra Pradesh, Bihar, Gujrat, Himachal Pradesh, Madhya Pradesh, Maharastra, Orissa and Rajasthan have still not been fully covered. Many believe that the Fifth Schedule has failed.

Article 40 of the Constitution envisaged the establishment of village panchayaths as self-governing institution. However, it was left to the Central and

State governments to fulfil the obligation. Parliament then passed the 73rd amendment in 1992, which exempted areas under the Fifth Schedule, among others. Since then the Provision of the Panchayath (Extension to the Scheduled Areas) Act, 1996, has endowed the Gram Sabha with powers to safeguard and preserve the traditions and customs of the people, community resources and customary mode of dispute resolution, cultural identity, development in the village, ownership of minor forest produce, prevention of alienation, restoration of illegally alienated lands, control over money lending and institutions and functionaries in all social sectors. The Gram Sabha's agreement is required by this Act for mining or the auction of minor minerals. Furthermore, the Sixth Schedule is to be followed. Although the Act makes it obligatory for the eight States with scheduled areas to enact appropriate State legislation within one year - by 24 December 1997, the states of Bihar and Rajasthan failed to fulfil this obligation. States are slow to fulfil this constitutional obligation because this would erode the present centralized power structure and, in principle, provide an element of autonomy for tribals.

1.11 The Sixth Schedule

Article 244(2) of the Constitution of India provides for the Sixth Schedule. It applies to the following - known as 'Tribal areas'

1. Assam : Kharbi Anglong, North Cachar Hills
2. Meghalaya : Garo hills district, Jatia Hills district, Khasi Hills district
3. Mizoram : Chakma district, Lai district, Mara district
4. Tripura : Tripura tribal areas district.

This Schedule provides for an Autonomous District Council (ADC) with executive, judicial and legislative powers, consisting of not more than thirty members of whom not more than four shall be nominated by the Governor and the rest shall be elected on the basis of adult suffrage. Furthermore, if there are different Scheduled Tribes in an autonomous district, the Governor may, by public notification, divide the area or areas inhabited by them into Autonomous Regions, and have regional council. Both the district and regional councils are empowered to make laws on the following.

1. The allocation of land other than reserved forests for any purpose likely to assist the inhabitants of the area.
2. The use of any canal or watercourse for agricultural purpose.
3. The regulation of shifting cultivation.
4. The establishment of village or town committees of the district and regional councils and powers of administration including village or town police, public health and sanitation.
5. The appointment or succession of chiefs or 'headmen'.
6. The inheritance of property.
7. Marriage and divorce and,
8. Social customs.

1.12 Tribal Sub Plan

The First Five Year Plan emphasized additional financial resources through community development approach to address the problems of tribal people rather than that of evolving a clear-cut tribal development strategy. Towards the end of the plan (1954), 43 Special Multipurpose Tribal Development Projects (MTDPs) were created. These MTDPs could not serve the interests of the tribal people since the number of schemes, were numerous. This approach continued during the Second Five Year Plan also. During the Third Five Year Plan, another strategy for tribal development was evolved by converting those Community Development Blocks where the concentration of tribal population was 66 per cent and above into Tribal Development Blocks (TDBs). By the end of Fourth Five Year Plan, the number of TDBs in the country rose to 504 but this strategy too was considered to be a failure as it failed to address the cause of more than 60 per cent of the tribal population of the country living in blocks outside the TDBs.

The Tribal Sub-Plan Strategy was evolved by an Expert Committee set up by the Ministry of Education and Social Welfare in 1972 under the Chairmanship of Prof.S.C. Dube for rapid socio-economic development of tribal people and

adopted, during the fifth Five Year Plan and is continuing since then. The salient features of the TSP strategy are:

The TSP is a plan within the ambit of a State or a Union Territory (UT) plan meant for welfare and development of tribals. Such a plan is a part of over all plan of a State or UT, and therefore, called sub-plan. The benefits percolated to the tribals and tribal areas of a State of a UT from TSP are in addition to what percolates from the overall Plan of a state or a UT. The TSP strategy is in operation in 21 States and 2 UTs. In the states like Arunachal Pradesh, Meghalaya, Mizoram and Nagaland, the TSP concept is non applicable since in these states tribals represent more than 80 per cent of the population.

The twin objectives of TSP approach are

- (1) Over all socio-economic development of tribals and to raise them above poverty level.
- (2) Protection of tribals from various forms of exploitation.

1.13 Institutions and Tribal Development

An institution is a set of rule or laws framed for the welfare of human beings. Before and after independence large number of institutional reforms and programmes were implemented for the empowerment of tribes. The axis of tribal development meant by them is “the ultimate integration in the mainstream of national life”. The integration is not touched with any aspects of the social and cultural life. The concept of ‘Economic Improvement’ introduced by the developmental agencies leads to the rise of some issues. Most of the tribes are considered to be poverty stricken. The term ‘poverty’ can be misleading in the case of tribals, if we consider them poor according to our measurement of modern standards. The requirements of tribal societies are limited and if these requirements are fulfilled, within their own eco-system, they may or may not be considered poor, depending on some other factors. The imposition of economic modernization creates some problems by unbalancing their traditional setting.

Apart from the 25 departments which carryout various tribal development programmes lot of state level institutions are also set up to carryout the tribal development programmes. They are:

1. The Department of Scheduled Tribes Development
2. Committee of the Kerala Legislative Assembly
3. Tribal Advisory Board
4. The Kerala State Development Corporation for Scheduled Caste and Scheduled tribes
5. Kerala Institute for Research, Training and Development studies of Scheduled Caste and Scheduled Tribes, (KIRTADS).
6. The Kerala State Federation of Scheduled Caste/Scheduled Tribes Development Corporation.
7. The National level organization(TRIFED)

Among these various institutional set up, the role of each institutional set up is different.

1.14 Statement of the problem

Historically tribal community is an isolated group confined mostly to forest or to other remote regions away from the mainstream population. Forest remained as their chief source of livelihood. But at later stages of development they have switched over to settled agriculture or to other manual jobs. Tribal women are an economic asset in the tribal community structure. Tribal women shoulder heavier responsibilities than men. Land encroachment by non-tribals and Government policies destroyed their traditional way of life, their right to land and put them to mainstream, which forces them to poor asset possession and some socio-cultural factors rendered their participation less than average which increased the work burden of tribal women. The problem here is the lack of community control arising from the failure of institutions in performing the proceedings of the policies for

protecting the environment on the one hand and conserving the tribal life on the other.

Tribal men in the society are usually subjected to many forms of malpractices. Alcohol addiction among their men folk forces tribal women to shoulder the responsibility of raising the family as their own. They have no option but to go back to work in the family. Many of them suffer from acute and chronic diseases, which force the tribal women to indulge in many kind of activities.

Deforestation destroyed the life of the tribal women in every way. Intervention of the mainstream society and the denial of their traditional life pattern switched them to the stages of alienation from their life. Development with the side face of exploitation efficiently got its practical form in Attappady. Besides the loss of their land, they are forced to the barren, uncultivable hill slopes. They lost 14,000 hectares of cultivable land to the settlers. Not only the land alienation but also the denial of traditional life structure destroyed their health condition and the consequent burden of work.

The linkage between poverty and forest degradation is often unnoticed in many respects. The life of tribal women is closely linked with the environment in which they live. Traditionally they had built a cultural and social structure that ensured a balance between human and ecological needs. Deterioration of the environment breaks this balance and they are now in the middle of “struggle for existence” The forest land encroachment by the non-tribals forces them to poverty. Large scale introduction of tribal welfare schemes and programmes, do not provide sufficient facilities to the tribal women. This is accompanied by large-scale exploitation by non-tribals. Development plays an important role in the deterioration of life of tribal women. Environmental degradation and poverty led them to poor health condition, nutritional deficiency, landlessness, severe exploitation by non-tribals and the overall destruction of their culture and tradition.

Even though, many institutional arrangements are introduced for the empowerment of the tribals, they are not in tune with their culture and tradition. The very flow of tribal life is intimately associated with the environment, which is neglected by everybody. Attappady testifies how unimaginative process could

deeply shatter an erstwhile self-sustained community. It is the first Integrated Tribal Development block in Kerala. Ever since 1970, when the State Planning Board declared it as the most backward block in the state, the state government implemented a number of development and welfare projects for the tribes. Crores of rupees have been pumped in to Attappady in the name of development. But the region now remains as the most backward with about 80 percent of the tribal population living in abject poverty. Institutional failure for managing common property resources and maintaining the self sufficient living of tribals is the main reason for the deterioration of the tribal culture and the resultant degradation of the environment. My research is an answer to the question

Why should tribal women become victims of development rather than beneficiaries?

1.15 Significance of the study

It is widely recognized that most people in tribal areas are natural resource dependents. They have biomass based subsistence economies. Owing to the growth of population, and large-scale landlessness due to the intervention of non-tribals with high inequality in the distribution of productive resources, the livelihood of the masses and the sustainability of natural environment are at great stake. The manifestation of these trends is high incidence of poverty and the rapid degradation of natural resource base. In the context of enormous policies and programmes, there arises the lack of any policy to suit their environment. The development of tribals can be achieved only through “the appropriate policies and programmes” with respect to alleviation of poverty and environmental degradation. Therefore it requires a careful, comprehensive analysis of the determinant at micro-level.

Obviously poverty alleviation and sustainable development have been the current goals and priority of the country’s development process since last decades. But often, the situation that leads the tribals to poverty and the degradation of their environment are often unnoticed. Tribal Development without analyzing their linkages with the environment is not significant. Tribal women are in severe exploitation without any alternative ways to satisfy their needs.

It is essential that before planning any programme for tribal development, it should understand their life and culture, their world views, cultural features, their problems and their felt needs. Unless these important factors are well realized and well accounted at the time of planning and implementation, the programmes however good and useful will bear fruits. Therefore it is essential that before planning these significant aspects of tribal population, it should be properly understood and analyzed in holistic manner and implemented through dedicated and trained personnel.

1.16 Objectives of the study

1. To analyze the socio-economic conditions of the tribal women in the study area
2. To study the dynamics of deforestation and the extent of relationship between the Tribal women and forest
3. To document the development programmes implemented for tribal upliftment

1.17 Methodology

The study was based on both primary and secondary data. Primary data were collected through a sample survey conducted in three panchayaths. From each panchayath hundred households were selected based on random sampling and thus a total of three hundred households are selected for the study. Primary data were collected from the respondents by using a structured interview schedule. To get more information, participatory rural appraisal method was also used. The secondary data were gathered, sources are received from reports of Integrated Tribal Development Programme (ITDP), Attappady Hill Area Development Society (AHADS) of Attappady, Census reports, Reports of Kerala Institute for Research, Training and Development studies of Scheduled Caste and Scheduled Tribes (KIRTADS) and relevant books and journals.

1.18. Limitations of the study

Collection of primary data in the interior tribal areas, particularly in case of Kurumbas of Attappady was very difficult because of lack of transportation facility in that area. It became very difficult to convince the tribals about the importance of the study and elicit information from them. The tribals are very indifferent and reluctant to give information due to the problem of illiteracy prevalent among them. Their indifferent attitude about revealing information gave rise to several problems. Many of the Mudugas in the interior areas were not ready to co-operate with the researcher in providing the data and correct information. In case of secondary data collection also have some difficulties. In case of secondary data also there were some problems. In offices like Block development, Integrated Tribal Development Project, panchayaths, etc there were no documents regarding the previous data and in some cases the present data were not available. This will affect the scope of the data.

1.19. Design of the study

The thesis is organized in eight chapters. The first chapter provides the background to the study. Second chapter reviews the literature. Third chapter provides the profile of the study area and general conditions. Fourth chapter consists of the life cycle structure of the tribal woman. Fifth chapter covers the socio-economic conditions of the tribal women in the study area. Sixth chapter consists of relationship between tribal women and forest and the degradation of the forest. Seventh chapter provides the documentation of the development programmes implemented in Attappady and their importance to the tribals. Last chapter consists of summary and conclusions of the study, suggestions and recommendations of the study.

Chapter 2

Review of Literature

REVIEW OF LITERATURE

2.1 Literature dealing with Socio-Economic condition

Women's issues got greater attention only now. Enough attention has not been given to the problems of tribal women. Many efforts were made by Governments, academicians and researchers to identify problems of the tribal economy. These efforts have contributed to a better understanding of the socio-economic and living conditions of the tribals. They shed light on the various aspects of the tribal economy like its agro-forest base, periodic markets, exploitation, hierarchy in tribal society, production, income, occupational status etc. But they did not give any emphasis to highlight the incidence of poverty among the tribals, and the existence of institutional aspects of problem, has not been touched by earlier studies. The level of development of different tribes and the socio-cultural traits of different tribes have some influence on the economic conditions of the tribals and they have also not been touched in earlier studies. The issues of tribal women need much more attention. There is not enough literature on it. The issues relevant to their struggle for a better tomorrow need to be delineated. Some of these are:

1. How relevant programmes can be prepared for the benefit of tribal women?
2. What should be the process of doing it- the process of consultation, decision-making, and so forth?
3. How should development functionaries approach tribal women?
4. What should be the form of communication and organizational structure to achieve it?
5. To what extent the economic plight of the tribal women can be achieved?

Studies of this nature are listed here:

Anantha Krishna Iyer's (1974), study on the various caste and tribes of Travancore and Cochin published in four volumes titled 'Cochin Tribes and Castes' is the first of its kind and carries descriptions on tribes like Kadars, Malay

Arayans, Nayadis, Ulladans, Paniyans and other tribes with emphasis on their socio- economic, cultural and linguistic elements.

Krishna Iyer (1937), also did similar ethnographic work in Travancore and Cochin area. He concentrated his study on the hill tribes, who were fast dying out. His first volume, describes the Kanikkars, Malapandarams, Malakurmabas, Mala Pulayas, Mala Arayans and Marasars. The Travancore tribe is in his second and third volumes.

Luiz (1962), has analyzed the tribes of Kerala. He made an exclusive account of all the forty eight tribes in Kerala. He has examined the changing pattern of various aspects of social life like occupation, mode of living, diet, religion, marriage, rituals and superstitions. It is basically a sociological study and much of their economic life has not been discussed.

Sharma (1974), discussed the problems of economic development of the resource rich, sparsely populated and extremely backward tribal region. Two stages are identified in the opening of such regions. The study describes that the tribal regions in India are generally associated with the sparseness of population, inaccessibility, unexploited forest and other natural resources. The tribal scene in the country, however presents a much more variegated picture. There are some extreme cases in western India. The tribal regions where natural resources got completely depleted. Some of these areas are drought prone. The dynamics of economic development of extremely backward tribal regions where resources are abundant are always in discussion. The conditions of a sizeable portion of the western Indian tribal regions are so different from this general picture that a special model and methodology for its economic development will have to be developed.

Mathur (1977), apart from providing being a descriptive study on the socio-linguistic evaluation of tribals in Kerala, provides valuable information on some of the major problems confronted by the tribals like land alienation, bonded labour, indebtedness and status of tribal women.

Chattohadhyaya (1978), made an attempt to interpret and depict the varied aspects of Indian tribal life such as the origin, traditional dress, social customs,

symbolism of their rites and ceremonies. He points out the fact that even though there are similarities in beliefs and life styles between tribals and non tribals, they have not blurred the sense of social distinction nor have they eroded their distinct tribal features.

Binay Kumar Ray(1979), has studied the tribals in the context of their economy which is based on forest irrespective of their economic types. The problem of getting the basic facts of economic life in a small non-monetary or partially monetary economy of the tribal people is of specific nature. The nature and functioning of the economic system or the organisation of tribals will present a true picture of their economic life which has system of mutual dependence and the influence of social forces on their economic behaviour.

Kunhaman (1979), made a detailed study on the problems encountered in the development of the tribal economy with special reference to Attappady. He stated that there is total lack of economic rationality in decision making in the case of tribals. There is an obvious gap between the dwindling tribal sector and the fast expanding settler sector. There is a great disadvantage in the asymmetric growth of the two sectors. Immigrants are getting richer, while there is precipitous deterioration of cultivable land. The consequent polarization of the tribals has assumed alarming proportions.

Mahapatra (1979), describes that the cultural heritage of India is enriched by numerous tribal groups. Many steps have been taken since independence to preserve their culture and to bring them social and economic benefits. However, the author's emphasis is on the crucial importance of recognizing the cultural pluralism of our tribes, and therefore, the extreme caution which should be exercised in any attempt to generalize them. Moreover the cultural linkage of ethnicity, politics and economics are crucial. There is a wide gap in tribal society between the power elite and the folk. The former seeks political power leading to economic benefits, while the folk seeks economic development to abolish exploitation and poverty. Traditional tribal cultures have been influenced by the socio-economic transformations, but there still exists an awareness of the "community" and an attempt to make the nation a community of communities. It is also necessary for

the tribes to search for universal aspects in their own particular cultures, in order to advance cultural growth. Finally it is heartening that in these search lie signs of an emerging spirit of counter aberration among the tribes. Thus the relationship between technology and the tribal culture is reciprocal. The former needs the cultural richness of the latter, while the latter needs the formal organization of the former.

Vyas and Menon (1980), in their study "Indian Tribes in Transition" state that in the broad matrix of Indian society, although numerically small, the representation of Indian tribes is culturally strong and effective. Caste traits and culture are inevitable for certain tribes. They are of the opinion that social changes are not brought about by a mere provision of education but with the help of public opinion and citizen's awareness programmes. Also it is time for the countervailing factors like regulation of the credit and market to be properly channalised. Further peer groups among the tribals should come forward to mobilize public opinion through properly phased programmes.

Vora *et.al* (1981), who examined the introduction of shifting cultivation and the present condition of poverty in tribal areas, says that the environmental degradation has disrupted the close adaptive relationship between tribals and environment. The life in forest has enabled them to survive while leading an isolated life in a difficult environment. Deforestation leads to a subsistence agriculture that was characterized by primitive technology producing just enough quantity of food sufficient for the households. Due to this reason the sufficient subsistence economy of the tribals was disturbed. The new system of economy introduced by the non-tribal made disastrous impact on their life styles. The result was that tribals of the region lost control over their economic destiny.

Anon (1982), in examining the extent of relationship which women experience with the environment argued that deforestation seems to have symbolized the situation of the over exploitation of the natural resources. Today even in the face of mounting disasters resulting from the assaults on nature, the exploitation of the people particularly the tribal women has increased. At the present pace of degradation it is estimated that within ten years the task would have

been completed in these countries. The destruction of nature leads to the deterioration of human beings especially those belonging to the weaker section of the society who depend more on nature than the others.

Gosh and Das (1982), in their study entitled “The Forest and Tribals-their inter relationships” reveal that a traditional balance mechanism had established between tribals and the forest. Gosh’s study among the Lapphos of Darjeeling district and West Bengal, observed that the use of plant resources were absolutely governed by the Ethno-ecological understanding of the people. Most of the structural materials were derived from the endemic species. At the same time it was found that in a very limited and rational way, controlled consumption of wood was practised by the tribals. The author recorded a total number of 112 species of plants used by tribals to fulfil all the needs of the community.

Roy Burman (1982), in examining the extent of development and poverty among tribals says that in the early 19th century the colonial rulers adopted a policy of massive exploitation of forest resources in the interest of state sponsored capitalists enterprises like railways, shipping and others. This reduced the area on which the forest dwellers could depend for their livelihood. At the same time hardly any investment was made to augment production of housing materials, fuel wood, fodder and so on. Inflow of industrial goods also hits tribal artisans. The policy shifted the land, which was not under current economic use by the individual tribal households.

Swaminathan (1982), who examined the growing poverty of the tribal people in the context of forest policy, says that the greatest problems facing the tribals are the lack of productive employment, famine and poverty. Famine in one sense is not famines of food but famines of work. Deforestation has reduced many employment opportunities. The enormous potential of forest for contributing to the enlistment of the rural economy should be viewed in the context of finding poverty and the country’s dual society with the top ten getting benefit of development.

Tiwari (1982), in his book “Development Strategy for Forest Tribals and Environment” deals with the continuing degradation of the forest which has led to environmental hazards in the form of floods, soil erosion, desertification, silt

damages, drought and weather destruction. Since tribal economy and forest are closely related, if forest environment is destroyed, the tribal life too perishes. Forest environment plays an important role in the social and cultural life of the tribals and the tie between the two can be strengthened, according to him by adopting appropriate technology in shifting cultivation and Integrated Rural Development Programme (IRDP) programme. Tiwari maintains that the country severely faces dual crisis of forest degradation and poverty.

Ramachandhran Guha (1983), while analyzing the British and post British forest policies in India, concentrates on the process by which the traditionally held rights of the forest communities have been progressively curtailed through the development of the forest policies, management and legislation. A feature common to the different types of forest exploitation is that whatever the end use of the product, was the exclusion of these communities in to whose territory such policies intruded. The author highlights the fact that while before independence forest was exploited for strategic raw-materials for imperial interests, in the post independence era, it was the commercial and industrial interests which dominated. In both these situations the forest communities were discriminated against.

Kattakayam (1983), has made a detailed study of the social structure of the Uralis, a primitive tribal group in Kerala. The author analyses in detail the failure of various welfare programmes, agricultural programmes, social and cultural programmes. He examined the causes of these failures. One of the major causes identified is the exploitation of the tribals by the non tribals. Being naive and innocent, they have fallen easy victims of perjuries and forgeries of the so called civilized. The study is mainly based on the Participant Observation Method aimed at examining the social structure and social process among the tribal communities to find out how they contribute to acceleration of changes in the tribal communities.

Alaxander *et.al* (1984), have analyzed the man-forest relation by asserting the fact that, the level of economic development and the distribution of population of any region depend on the relationship between man and forest around him, different elements which are used for different requirements. Man's knowledge of

various characteristics of ecology helped him to search food and other requirements useful for different habitats and seasons leading to the exploitation of natural resources. In the process it was forgotten that there has to be an equilibrium between the depletion of natural resources and their replenishment between the transformation of natural habitat and the preservation of those elements in it which are needed for mans wellbeing. This has led to a conflicting situation between man's interest and preservation of nature. The author concludes that the over exploitation of natural resources has made irreparable damages to the environment.

Ramachandran Guha (1985), says that the depletion of natural resource base leads to poverty. Tribal people, who were driven to hilltop by the in-migrants, denied their customary access to the forest. This alienation sometimes forced the people to degrade the surroundings he once lived in symbiosis with. So the result is an accelerated exploitation of the land and other natural resources by various out migrants.

Murali Manohar and Janardhan Rao (1985), have analyzed the hardships caused by tribal women due to deforestation. Land and forest are the twin major sources of living of the tribals and they have become so close a part of their life. Large scale tree felling and deforestation in the tribal areas apart from all its attendant effects such as imbalances in the eco system, denudation, desertification of the land and so on, had led to severe stress and strain on the life of tribal woman. Environmental degradation has also thrown up new problems to the women. She has to spend twice her energy for domestic labour, as she has to spend nearly six to nine hours in household work as fetching water, collecting firewood and fodder from the forest. The author says that change in their environment and traditional ways create not only a psychological disenchantment, but also render them physically helpless. This situation is extended to more severe situation by poverty, helplessness, prolonged indebtedness. Tribal women are more exploited under these situations.

Das B. Kumar (1986), in an article related to tribal upliftment and entitlement stressed two main points for the development of tribal economy. These are (a) the need for decentralized planning for economic and social development

and (b) diversification of activities of tribals need for establishing forest base industries. This article points out that the market mechanism in the complex town is beyond the comprehension of tribals. The tribal producers do not get a fair deal. The market is entirely controlled by marwadis and dominated by middlemen. With the increasing tempo of modern economic activities the area of exploitation has also widened. Mostly tribal settlements are isolated, dispersed and inaccessible. Socio-economic conditions and resource potentials vastly differ from region to region in the tribal economy. This diversity necessitates a special type of planning at the micro level for the redressal of the tribal poverty.

Krishnan Nair (1986), in his article suggests two measures for tribal development

1. The regulation of the government and the forest policies of the state should be in accordance with the economic system of tribes, and
2. The institutional arrangements for the tribal development, and provide training to the newly created institutions for making arrangements for tribal development.

Takur (1986), in his study highlights the socio-economic conditions of scheduled tribes inhabiting in different parts of India and looks in to the impact of development programmes on their socio-economic conditions in general and different tribes in particular. Tribal interests were neglected even after the departure of colonial rulers. Independent India's need for revenue from the forest and raw-material for industries continues to deprive the tribals.

Blaikie and Brookfield (1987), have examined the poverty and environmental linkages. They hold the view that poverty, insecurity of tenure, public policies and inaccessibility to other resources have frequently cited as the prime factor for the indiscriminate exploitation of natural resources. Poverty and land degradation are often associated.

Buddhadeb Chaudhuri (1987), has analyzed the relationship between forests and tribals. He says that environment plays an important role in the health and nutrition of the tribal people especially the tribal women. It has been reported in

various studies that, the tribals who are living in remote areas have a better health status and more balanced food than those living in less remote and depleted forest areas. It has been possible for the tribal community to subsist for generation with a reasonable standard of health because forest provided them the food such as fruits, tubers, leafy vegetables, honey, juices, grass, fish etc. Medicinal plants and herbs which they have been using for the treatment of diseases and maintenance of health are today the sources of modern medicine. It has been argued that the various roots, tubers available in the forest or small animals they can hunt supplied to them a more balanced nutritional status to the tribals, but due to the deforestation most of these are not available to them in many areas. It leads to unbalanced eco-system in nature and stand as a block in the supply of sufficient food to the people who depend on it. He concludes that any type of degradation in environment is likely to affect the balance and thereby adversely affecting the concerned population.

Geeta Menon and Walter Fernandez (1987), have made an in-depth study on the environmental degradation, exploitation and status change of the tribal by degrading them. Here poverty is the greatest polluter. There is some evidence to show that poor are more depending upon natural resources, but not enough evidence to show that they over exploit or neglect their use. They argued that there is some evidence which shows that degrading environment hurts the poor class much. This is particularly so in the case of women. Their study points out those forest dwellers are the worst affected victims of environmental degradation. Women are deeply affected because of the role assigned to them in the sex-based division of labour. The destruction of the environment has resulted in their indebtedness, land alienation and bondage.

Joshi (1987), studied the causes and consequences of deforestation in Kerala. The author highlights the sharp reduction in forest areas in terms of low land-man ratio. Increasing population and the consequent increase in demand for agricultural land, fuel wood, fodder and timber led to the encroachments to the forest land and illegal forest clearance. The development programmes started by the Central and State Governments have also caused deforestation to a great extent. Deforestation is thus an outcome of the integration between the factors governing

agricultural expansion and forest land use on one hand and the nature and extent of forest resource management and utilization on the other.

Walter Fernandes and Geeta Menon (1987), who have examined women's relationship with nature, say that the adverse effect of environmental degradation was felt in particular by woman since their links with the environment were closer than those of men. The general feeling entirely rests upon the tribal economy as a whole. But not the hardships of the tribal women are mostly ignored in present times.

Paul (1988), has made an in-depth study to examine and to compare the extent of inter and intra communal variations at in the levels of the socio-economic conditions of the hill tribes and to understand the possible reasons for such variations. An effort is made to investigate the impact of the planned economic development programmes of the state government on the hill tribes with a special aim to see if there are any spatial or communal variations in the agrarian structure and the transformations in the context of the changes in production forces and production relationships. It showed wide fluctuations in land holding or land leases among different tribal communities in Wayanad. A dichotomy exists in the wage structure between the tribals and the non-tribals. The system of bonded-labour underwent relative changes and it transformed in to similar pattern of attached labour, in order to fulfil the needs of the labour class. The author offers an explanation for the existence of spatial disparity in the adjustment process of the tribes in response to the progress of development programmes.

Rucha Ghate (1988), in her thesis examined the economic impact of forest policy on tribals. The study pointed out that the dwindling forest cover has severely affected the tribal dependence on forest and adversely affected their standard of living. Insufficient employment and low opportunities of self employment have forced the tribals to indulge in illegal activities of encroaching forest and illicit felling. At the same time, the revenue oriented forest policy of the Government by its single minded pursuit of commercial plantations has grossly neglected the needs of the tribals. Many forest officials are aware of the tribal problems. The privileges and concessions enjoyed by the tribals are considered to be a burden to the forest.

Maheswari (1990), highlights that tribals are the repository of vast knowledge on the uses of biological materials which is often kept secret and is passed on by tradition only. As the tribal scene in the tropics is fast changing due to deforestation, there is an urgent need to prepare ethno-biological inventories and to evolve strategies for conservation of ethno-biologically important species and overall protection of the forests. The author points out that tribals form an important part of the forest eco-system and therefore any activity in the name of biosphere reserve should begin with a genuine understanding of the life styles and the problems of the concerned tribal population.

Raj Raja Varma (1990), in one of his studies points out that tribals form an integral part of the forest eco-systems. What is needed is that any activity in the name of bio-sphere reserve should begin with a genuine understanding of the lifestyles and problems of the tribal people in the concerned area. He stressed that the most important measure to ensure tribal welfare is providing them uninterrupted employment.

Repetto (1990), in examining the failure of the Local Government policies leading to the destruction of environment concludes that the inefficient commercial logging operations and the conversion of forest areas into cattle ranching and agriculture leading to current rapid deforestation rates are largely the result of failure of Government policy. The forest degradation is largely due to the result of poor stewardship, inappropriate policies, and neglect of significant social and economic problems, where true focus is outside the forest sector. He distinguishes between resources degradation as a consequence of market failure which Government is unable or unwilling to correct, and policy induced market distortions.

Cheryl Simon *et.al* (1991), in analyzing the health and income correlation of tribal women say that deforestation affects women for gathering firewood for fuel and fodder for animals. The trees are felled tremendously, with less wood available, women the traditional fuel gatherers, have no option but to collect cow dung which once would have fertilized the soil, for cooking fuel.

Govind Kelker Nath (1991), who examined the increasing burden of tribal women due to the destruction of natural environment, says that, it affects tribal women who use and manage the produce of nature and trees. The decision of cutting down the trees taken by individual families, whether women or men, there is no way in which the various individual decisions can be reconciled in such a way that the total cutting does not exceed the ecologically sound limit.

Muraleedharan and Sankar (1991), interpreted human ecology and socio-economic interaction between tribals and other communities of Attappady. Based on primary data the study has revealed that the socio-economic conditions of the tribals have been adversely affected as a result of land use changes. Land degradation and land marginalization are the major problems in the study area.

Basha (1992), in his study "Impact of Forest Policies on Tribal Life" explains the various Forest Acts and policies of India. The tribals once enjoyed absolute freedom in the forest and used the natural resources prudently. They were the worst affected during the various periods of development and as a result they are still lowest in the economic ladder. The author states that the forest policies and the forest laws of the British colonial period did not help to better their lot economically and socially.

Dashora (1992), considers that tribals are losing their identity because of the rapid development of trade, transportation and communication, provision of reservation, educational services and equal political status. The author further quotes certain examples of dilution of tribal culture. The study concludes that the horizontal distances are shrinking by leaps and bounds. Tribals who are driven to an inhospitable environment that comes near to the mainstream society are growing conscious of their civic, economic and social rights. It has brought about a great change in the tribal life.

Dhabriyass (1992), in analyzing the growing unemployment and poverty among tribals says that the growing destruction of the environment with its reckless effect upon tribals and its families are now facing the problem of unemployment, they have been deprived of their many benefits from the forest areas. He suggests therefore that tribal families should be provided work near their places of living by

allotting land out of the forest blank areas, for the plantation and horticultural purposes. To begin with they have to be provided with infrastructural facilities for undertaking the plantation programmes successfully. The labour-intensive schemes for the tribals should give priority to persuade them to leave shifting cultivation.

Sharma Rowe (1992), in examining the deforestation leading to the market failure says that Government is the principal holder of forest property rights and traditional system of providing access to forest and allocating common property resources to poor people have broken down. He argues that a Government disregard of traditional rights of the people makes environment more vulnerable to open access problem. In many instances government lacks the capacity to manage the environment effectively and control access to land under public ownership. Public policies could help to compensate for this failure.

Andrea Singh and Neera Bura (1993), have analyzed the relationship between women and forest and point out the linkages between women and natural resources, and domestic economies of the poor rural households in India. Many studies including the seven state study noted earlier have documented that poor households are more dependent on free bio-mass goods and common property resources than better off households. Women are the primary gatherers and managers of bio-mass goods in poor rural households. Women perform key roles not only in gathering but also in the processing, storing utilization and marketing of free bio-mass goods. Women's roles and responsibilities are pivotal not only in the management of natural resources but also in the management of domestic economy. Recent studies have shown that women work longer hours than men, pool more of their income to household budget, manage day today consumption and cash-flow needs (often in the absence of men who migrate for better employment opportunities).

Mink (1993), has examined the relationship between poverty and environment. He argues that women, poverty and environment are inter related. Women's reliance on natural resources for their families' substances is far greater than that of men. Poverty drives women to over exploit natural resources which contribute to the degradation of the environment which in turn depresses poor

women's income by diverting more time to routine household tasks such as collection of fuel wood, fodder and water by increasing the productivity of the natural resources from which the rural poor are most likely to obtain a living.

Vinit Sharma and Anuraghi Sharma (1993), while interpreting the status of tribal women say that, the status of tribal women in many parts of rural India is very low. The situation is worse even among the primitive tribal communities, which constitute approximately 7.5 per cent of the total population of the country. In such societies, led to an isolated existence, far removed from the modern way of life, a wife is primarily regarded as an investment for the production of labour and a child bearing housekeeper. In such societies male dominance is a rule, and preference for a male child, is a traditional compulsion. Women are considered too inferior in status to voice their views and concerns even in matters which have a direct bearing on their own health and well-being. Family elders and caste leaders reign supreme in the decision making processes where pre-historic practices and primitive rituals and customs are still prevalent. Consequently, such societies are typically characterized by uncontrolled fertility and very high maternal and infant mortality rates. The concept of inter relationship, the social status of women and fertility though well established by deductive reasoning, have aroused considerable scientific debate and controversy in the past, for the mere reason that research workers had not attempted to quantify the status of women in numerical terms. Moreover a number of vital medical parameters with social status and consequences have been omitted in such computations. In the present study, an attempt has been made to develop a comprehensive socio-medical scale to measure the social status of tribal women and to study fertility behaviour and family planning practices among tribal communities

Devendra Nath Takur, (1994), in analyzing the technological up gradation through the destruction of the environment conclude that, with increased destruction of nature the forest dwelling tribals have experienced a progressive loss of control over their habitat. This deprivation has manifested in a series of movements. While there were intermittent uprisings in the fifties and sixties, at the present time we find unrest in most forested areas. The economic enlistment of tribals can be integrated with maintenance and development of their natural habitat.

Shiva (1994), has examined the linkages between gender environment and development. She argued that the natural resources base is closely linked to the livelihood and well being of the poor households. Shiva argues that 'Economy and Ecology' are not opposed but coverage in the survival economies of the third world poor however in the context of market oriented development have been rendered contradictory.

Bernard Den Auden (1995), who has studied poverty and human rights and consequences of deforestation, clarified that access to good food producing land and appropriate means potentially provide individuals and families with some degree of independence and autonomy. He puts forward that civil rights and fundamental human rights are necessary requirements for any process that seeks to assist the poorest of the poor in creating conditions for even the rudiments of human dignity and resemblance of freedom. He suggested that unless the right to land and its products are protected, technology couldn't alleviate human sufferings. Thus unless their rights are protected they will easily become the victims of deforestation.

Hal (1995), has examined the correlation between health and poverty of the tribal women. He argues that the degradation of the environment has severely affected the nutritious diet of the tribal women. The food obtained from gathering, hunting and fishing provide them lot of nutritious diet. But they may be now suffering from nutritional deficiencies because the energy spent in gathering, hunting and fishing may have required more nutrition that is usually obtained from the food obtained, the ancestors of the contemporary communities might have had a better nutritional diet than what these people are now getting from their gathering and hunting activities. But the overall situation in this regard appears, to quote Truswell, "as the diet of hunters, gatherers, seems in general to be associated with little nutritional deficiency and no evidence of nutritional excess".

Ratna Reddy (1995), has studied the poverty and environment linkages and points out that it is often argued that poor depend more on natural resources and hence they tend to protect it better. Others argue that in order to meet immediate livelihood needs poor tend to discount the future at a much higher rate. The author

says that in both cases their requirements from nature are more due to the limited alternative sources of livelihood and larger family size. They obviously look from the household perspective rather than from the perspective of resources. The study indicates that, the poor do not seem to have higher discount rate for future. This may not be due to the lack of access to resources like water, credit and other institutional mechanisms.

Raj Rani (1997), has analyzed the relationship between the tribal women and forest. The author says that traditionally women have been responsible for subsistence and survival economies and the culturally accepted division of labor. Within the family they have to collect fuel, fodder and water for household needs. As these become increasingly difficult to obtain due to deforestation tribal women have to spend more and more time searching for them.

Edward Barbier (1998) in analysing lack of development arising from the struggle of poverty leading to deforestation problem holds that, one of the consequences of deforestation and the depletion of fuel wood supplies is that it forces poor households to divert dung for use as fuel rather than for fertilizer, the present value of dung as fuel is higher than the value as soil nutrients, but the context is one where there is no choice anyway since there are neither fuel nor fertilizer substitutes to which house holds can gain access. The result however, is certainly a decline in soil fertility, low levels of productivity and loss of future economic welfare of the marginalized section of the population.

Jodha (1998), who studied about poverty and deforestation, says that, poverty is the prime mover of deforestation. The over exploitation of resources is the only and preferred means of substances the poor people know. The poor are ignorant of both the limitation of their environmental resource and consequences of their extractive usage practices. The poor have little stake in health and productivity of their natural resources.

Lipi Mukhopadhyay (1998), who identified the status of tribal women and the impact of deforestation, says that the study of tribal women and their struggle for recognition of rights to land and movable property is a disputed problem. In traditional tribal economies the role of tribal women was substantial and crucial. As

a result their opinion had more value in decision making process. Many of the taboos that existed in non-tribal society are absent in tribal economy. Tribal women play a crucial role in development due to their direct and greater participation in tribal economy. Their interaction with the forest and the traditional ways in which they manage natural resources and harvesting significant amounts without depleting the natural resources, makes their role in sustainable development more prominent than that of tribal men folk. As the tribal life gets disturbed more and more by economic development, the problems of tribal women are increased. Gathering of edible items, fetching drinking water and collecting fodder and firewood from the forest are becoming increasingly difficult. The distance the tribal woman has to travel for all this is growing. In many tribal pockets in the country tribal women have come forward to adopt certain innovations. However they are yet to be more effectively mobilized to promote the cause of a change at a higher level. He concludes by saying that the immense potential of tribal women and taking stock of the wider arena of their participation and contribution to tribal life and culture, they could be of great use and help in the induction, implementation and adoption of different kinds of innovations proposed in programmes of development.

Nath and Mukherjee (1998), have studied the relationship between forest ecology and tribal development. In every society people have their own conception on the relationship of man with his physical and natural environment. Similar is the case with the tribal societies where people have a close affinity with nature. Environment and poverty are strongly related to the tribal societies. Degradation of environment affects the infrastructural facilities of the area. Besides agriculture, forest products are a major source of income in tribal areas. Initially tribals in general and women folk in particular were getting the forest products and firewood at a stone throw distance or even less than that. Thus deforestation has led the tribal women to extra work load which badly affects their life, health, nutrition, income and self sufficient living conditions.

Mohan Rao (1999), has examined the empowerment of tribal women. He described that women in tribal societies are more industrious than men, as well as their counter parts in non tribal communities inhabiting in rural and urban

communities. A tribal woman is considered to be an economic asset. The environment, through which they maintained their culture, has severely affected their life style and led to poverty. They are responsible for doing household work in addition to regular work of fetching water from distant streams, fuel from forest, grinding, cooking, and collection of minor forest produce along with the large matters of grown up children. The degradation of environment increased their workload. Position of women and the role-played in mythologies, epics and folklore generally determine their status and role of contemporary women. They are invisible potential workers.

Roy *et.al* (1999) in analyzing human resources, gender and environment in development say that apart from poverty of the tribals, ignorance and institutional failure including market failure and Government are the main factors in the degradation of forest. In developing countries the absence of ownership and customary rights to land reduce the incentives of cultivators to increase investment on land. Since environment is a common property, market for environment does not exist. Policy failures apart from institutional failure have to take a great deal of responsibility for the degradation of environment. They concluded their study by saying that four fundamental requirements are required for achieving sustainable growth and for development. viz,

- a) Human resources,
- b) Removal of poverty,
- c) Women,
- d) Environment

Rene Veron (2000), examined the environmental sustainability leading to the development of marginalized section. He says that environmental sustainability is important for development, because human beings are ineradicably bound up with nature. Thus environment is important for our survival, health and social life. In order to become sustainable economic and social development should retain the ecological and resource potential to support the future generations. He concluded it by saying that many of the problems might actually originate from the lack of development that means poverty might be a primary cause of degradation of forest.

And environmental degradation reinforces poverty. His main suggestion is to conserve the environment

Siby Tharakan (2000), has examined the impact of displacement and resettlement through environmental degradation. He says that the destruction of common property resources of the eco- system has meant instant deprivation of their source of livelihood, and therefore of their survival. The problem leads them to impoverishment and marginalization inducing mass poverty, severely affecting their health and nutrition forcing the poor and moderately poor to the lowest level. Increase in morbidity level, social disarticulation and number of homelessness and landlessness of the people forces masses into joblessness. Apart from these problems, directly imposed on the people there are some problems, affecting the community like aggravation of the problem of food insecurity, increases in flood, major decreases in rainfall, ecological imbalances, and loss of wild life.

Susan Backingham Haffield (2000), in one of his article points out the linkages between women and environment. The author says that women's work is often linked to the environment through subsistence agriculture, domestic chores and hired work such as sowing and weeding. Much of this work is made harder through environmental degradation. In the extent of relationship between these, there arises discontinuity between the amount of work women do on the one hand and their lack of ownership on the land on the other hand. A woman suffers due to her social role as the main unpaid domestic worker in each household which brings her closer to an awareness of environmental hazards. The author put forward the idea that since poverty is the major determinant of ill health and of exposure to many environmental problems, women are most likely to suffer. Such income and occupation imbalance seems too resilient to geographical location and to industrial progress, it implies that society must be structured in such away as not to perpetuate these inequalities.

Gopal Kadakodi (2001), has examined the relationship between poverty and environment. He asserts that the linkages between poverty and environment are too complex. The supporting argument is that poor people have a tendency to over exploit the resources like land, water and forest and in such societies the people

depend upon common property resources. The question of linkages between poverty and environment is influenced by population pressure as well. Population growth may not affect environment directly but through poverty. He empirically proves the assumption that environmental degradation really hurts the poor people.

Papia Lahri (2001), in one of his articles argued for the empowerment of tribal women in the context of forest degradation. He says that the empowerment of women needs ultimately, the intrinsic inherent and innate strength of the mind, character and convictions and the strength to act according to one's conscience. A woman suffers largely due to the environmental problems. The unrestricted exploitation of natural resources, unsound agricultural practices have had devastating effect on the environment and as a result on people's health and quality of life. In such situation women have few choices about the kind of life style. Some studies shows that women compared to man are likely to prefer a lower standard of living with fewer health risks to a high standard of living with more health risks.

Das and Manoj Misra (2002), in their study point out that, forests are an important source of income and raw-material. The method and intensity of forest use varies from region to region. On large stretches of land, however destructive exploitation still progresses at an alarming rate. Only a small part of our forest is managed in a form that merits the attribute sustainable, in which achieving sustainability is a stated goal. Therefore involvement of people in its management was proposed at different levels and this was accepted by the Government. Joint Forest Management was replaced by total Government's management and ownership. Local people are more dependent on forest, especially the tribal women who were the worst sufferers due to the degradation of forest. For the tribal economy forest is the major source of livelihood. Forest is not only providing their food, fodder medicine and fuel but also their each and every cultural and religious life is involved in such an inseparable way with the forest that without the forest tribal life would become charm less and unthinkable to them.

Upadhyay and Gaya Pandey (2003), who studied about the relationship between tribals and forest show that whenever the term tribe is used, an image of forest dwellers comes to the mind. The forest has maintained the existence of the

tribals since centuries. Even today, tribals are found living in and around the forest. They are utilizing the forest for various kinds of needs. So long as the forest was in the possession of the tribals there was no decrease in the forest areas. But as soon as tribals were made forest labourers from the forest lord, decrease in the forest area started taking place. Tribal culture and forest have been inseparable entities. The forest has played a significant role in shaping the social, economical, religious, political and cultural systems of the tribal societies. In their societies clan is named after trees, plants, birds, animals and insects etc, found in the forest, and with whom tribals trace mythical relations, generally known as totemic objects. The clan organization takes place on the basis of totemic relation. Forest has been the centre of social activities of the tribals. The tribals of the same village or different neighbouring villages assemble in the forest at the time of collection of Minor Forest Produce (MFP).

Prafulla Kumar Das and Alekha Kumar Gadhai (2004), in their study made a detailed description of the relation ship between the tribal women and environment. They hold the view that the key to man's health lies largely in his environment. The purpose of environmental health lies largely in his environment. The purpose of environmental health is to create and maintain ecological conditions that will promote health and thus prevent diseases. Tribal women are directly dependent on forest for their subsistence, while for others it provides food and livelihood through crucial inputs to agriculture through water and soil conservation and supplies of fodder and manure. The relationship between tribal women and environment attains significance because they are perceived as victims of environmental degradation.

The World Commission on Environment and Development states that "Women folk are associated with the unmediated, the small, the micro levels of life activity, they represent the most powerful protective force of the environment, having thorough knowledge of the micro- level process and monitor the resource position Forest project should aim to foster local community development for reducing rural poverty by establishing a balance between women and forest resources. Women marginalization is a symptom of style of development that tends to neglect both human and environmental consideration. Thus women are both

users and the dependents of nature. Since women have a special relation ship with the nature, they are found to be the greatest victims of environmental degradation.

The impact of environmental degradation on women's livelihood and workload include the collection of fuel, fodder, water and minor forest products. The link between poverty and environmental degradation has been articulated by the world commission on environment and development. It says that the poor and hungry will often destroy the environment for survival and will cut the forest and over use the marginal lands, resulting in degradation and reduction in land productivity.

2.2. Literature dealing with institutions

Hall (1986), as a historical study employs a relatively broad conception of institutions including "formal rules, compliance procedure and standard operating practices that structure the relationship of people in various units of polity and economy. His concept is intended to be broader than simply focusing on the formal constitution and structures of the state but more restricted than that deals with the effect of wider cultural norms. His approach encompasses regulative, normative and cognitive process.

Mohan Das (1986) has studied the impact of development projects in the Western Ghat region on the forest dependent population with special reference to the tribes in Wayanad district. He says that most of the adverse ecological consequences of development projects have been in terms of income, employment, land holdings and frequency of food intake. Impact of forest dependence was done in terms of changes in the principal sources of income and employment derived from the forest.

North (1990) says that the alternative institutional arrangement requires a high transaction cost. These institutional structures will differ with respect to resource allocation, the cost of institutional establishments and maintenance. A new institutional structure will be of benefit to the society, where the reduction in transaction costs of allocation decision exceeds the cost of establishing and

maintaining these institutions. In order to accommodate these deficiencies in the basic model of institutional structure two premises are adopted

1. Institutions are the creation of human beings and hence a theory of institutional change must begin with the individuals
2. Incremental institutional change comes from the perception of the entrepreneurs in political and economic organizations that they could do better by altering the existing institutional framework at some margin.

He says that institutions exist to reduce uncertainties in human interactions. Thus he concludes that the major role of institutions in society is to uncertainty by establishing a stable structure to human interactions.

Desahpande (1992), who has analyzed man-environmental relations, holds that man environmental relation has gone through many stages. It was always an endeavour of man to derive the best from the environment without affecting the main stay. This decision process was governed by the existing institutional structures. Over years the use rate determinants and institutional structures have undergone manifold changes. The resultant of these was reflected in environmental degradation. It is asserted that the policies concerning the environmental decision should be formed with the help of an institutional frame. In order to achieve sustainable development from the overall degrading environment it is clear that an institutional framework with people's participation and community control over village commons is a pre-requisite for sustainable development.

Bjorn Johnson (1997), who has examined institutional learning and clean growth for forest protection, argues that the important role that institutions play in moulding the process of long run economic transformation, the possibility of economic growth without environmental destruction is to a large extent a question of institutional change, including design and redesign of institutions. It is a question not only of technical learning but also of institutional learning. Poverty can be much more reduced with economic growth, which implies increasing use of natural resources and thus pressure on environment.

Lee Alston (1996), analyzed the causes of institutional change as endogenous to the system, but exogenous to the individual demanders and suppliers. This is not seen as a choice of variables for any individuals to change. Put in another way, there is analogous to that of the individual consumer in competitive market. Some laws or rules are the result of a general consensus that is new law is the right thing.

Malcolm Ruther Ford (1996) argued that institution may serve only the sectional interest and may operate to the detriment of other groups of the society. Institutions are serving the interest of some groups at the interest of others. Institutions perform all types of social and economic functions which are indefinable. He put forward the idea that human beings are intentional actors, institutions are the intended or unintended outcomes of intended acts of individuals. Individual may design or modify institutions through some collective choice, with the intention of performing better functions for the betterment of their living conditions.

Robert E Goodwin (1996), in defining institutions in new institutional economics, examines the way in which collective action can be institutionally embodied and in that form shape and constrain subsequent to individual choice. It forwarded the following propositions

1. Individual agents and groups pressure their respective projects in a context that is collectively constrained.
2. Those constraints take the form of institutions-organized patterns of socially prescribed behaviours expected of occupants of those roles, which are created and re-created over time.
3. The same contextual factors that constrain individual and group actions also shape the desires, preferences and motives of those individual and group agents.
4. Those constraints characteristically have historical roots, as artificial residuals of past actions and choices.

Mushraq Khan (1997), who examined the state failure in weak states, says that “an institution is defined as the set of formal and informal rules which constrain and govern the interaction of agents subject to those institutions”. The formal institutional structure includes conventional property rights but also any other enforceable constraints. State regulation in general creates or attenuates property rights and is therefore part of the formal institutional structure. The state as an institution is responsible for the enforcement and protection of all formal property rights. Both formal institutions, informal and voluntary ones affect economic outcomes because they condition the opportunities and incentives of the agents. Institutional failure refers to some judgment about the potential improvement in performance, if institutions could be restructured.

Tiplut Nongbri (1997), who studied the gender issues in tribal society, says that tribal women are a distinct social category for whom specific programmes suitable to their needs are to be formulated. A tribal woman possesses greater economic independence and freedom of movement than her counter parts in non-tribal societies which cannot be disputed. It would be naive to equate these with superior social status. This feature is a compulsion of their subsistence level of production, is apparent from the widening gender gap which occurs with economic differentiation and modernization. Gender inequality is not alien to tribal societies but it is obscured by their poor economic conditions which forces men and women to co-operate and share in joint economic activities. Tribal customary laws which subsume the people’s beliefs, customs, social mores, precepts rights and usages practiced since time immemorial do not always conduce to the interest of tribal women.

Rose Ann Devlin and Quentin Crafton (1998), who analyzed the importance of institutions, say that any policy that is implemented in an unsuitable milieu is doomed to fail. To be successful, a policy must be implemented in an environment in which rules and codes of behaviour conducive to that policy exist. To see the importance of institutional framework, consider the problem associated with implementing of environmental policy. Indeed institutional failure may not only prevent the solution of environmental problems, but also is a major fact that inhibits economic development and contributes to poverty.

Louw (1999), in his article “Effective Institution”, suggested a condition for sustainable development. He defines the role of institutions as patterns of behaviour within a context of values and norms, embedded in social relations and recognized and valued by society. He considers the fact that the idea of optimal individual satisfaction as primary indicator of social good forms part of the basic approach to achieve optimal social well being. This approach creates the impression of optimal freedom and choice. He asserts that institutions are very essential to mould the individual character, which satisfies human behaviour.

Sanat Joshi (1999), in examining the concept of land alienation says that many state Governments having Tribal Sub Plan areas have not made use of regulations making provisions under the fifth schedule due to institutional failure. This is clarified partly due to inadequate implementing machinery. Taking advantages of the loopholes in law, the forces of exploitation are able to circumvent the legislative provisions. The legal provisions have been inadequate in tackling the problem in all its dimensions and the implementation processes have been so weak to render them ineffective. The tribal poor are suffering from these institutional inadequacy and failure.

Ritimbhara Hebber and Sarthiacharya (2003), studied about social institutions and development changes, they describe that modern institutions prevail over traditional one, and this is the classical position. The successful establishment and functioning of any institution critically depends upon the social, political and economic support it gets in its commencement. The choice of institutions primarily rested upon their importance in influencing the quality of life. The development process began with it and continues pausing central planning for economic development. At the same time local self-Government found root for social and political development. The co-existence of this seemingly polar process and the associated institutions is justified in the society.

2.3. Theoretical Framework

The collective action is an amalgamated institution to manage private, public and common property resources, based on a collective decision and implementation. Collective action (often referred to as participatory management)

is a group behaviour emerging as an alternative strategy to market, for managing rural, environmental and natural resources. Collective action is a process, which takes place in five stages- appreciation, influence, consummation, action, and evaluation. The appreciation phase involves listening, validating information, sharing perceptions and opinions, and collating lessons from the past. The influence phase is one in which consummation, persuasion, and exploration of options take place, leading to joint decisions or new relationship being established (between different sections of the people and stakeholders) in consummation stage. Consummation is also the stage in which the rules of responsibility and rewards are refined. The decision is acted in the action stage which is evaluated in the last stage with influence on future participation. Participatory management, therefore, implies sharing of information, mutual negotiations, collective decision making, and implementation.

The concept of collective action as a convergent institutional arrangement to manage common (and possibly also private) resources is pursued further. The basic social philosophy of collective action is participatory development as against the individual development. "Participation is a process of initiating and continuation of an active process by which beneficiary/client groups influence the direction and execution of a development activity with a view to enhancing their well-being in terms of personal income growth, self-reliance or the values they cherish including equity.

There are a number of alternative definitions and views about the nature and content of participation:

1. Participation as contribution by people in public project,
2. Participation as organization with new rules, regulations and institutions and
3. Participation as empowering people in decision making, project implementation and sharing benefits.

Collective action as a theory to manage common property resources has many aspects. Collective action is about the people being able to influence the

direction and outcome of activities, and participating in the action by themselves. There cannot be participatory approaches without room for learning over generations. Communities need to learn and so do organizations implementing programmes and schemes. Participatory approaches cannot be effective until there are changes in attitude which are best brought about through a history of learning. Learning entails a continuous process of discovery wherein people can examine why they are not able to do what they want to do, identify ways of improving their action by questioning the fundamental approach to their work, and adopting more promising actions. Participatory forest management based on collective action theory has two important approaches

1. Game Theoretic approach
2. Evolutionary model approach

Participatory institutions seems to follow any one of the above two routes.

How to initiate collective action strategy is an important question. This is a question on which a large number of practitioners and theoreticians have a variety of suggestions. A practitioner such as NGOs finds it easy if there is some internal leadership in the community. At least some degree of societal homogeneity among the people is minimal concern for the commons. In case the leadership does not emerge from within, then the NGOs do provide this to some extent from outside. What the communities do not like this leadership does not emerge from within, and then the NGOs do provide this to some extent from outside. What the communities do not like about this external leadership is when it becomes a 'master, ignoring local knowledge, customs, and habits. In theoretical terms, evolution of co-operation requires certain pre-conditions.

In the context of common property resources, there can be a number of stakeholders (and agents) with different preferences. These different stakeholders are forest department, local communities, women, tourists, and scientists. These different sections have different aims and motives to satisfy. Then each of them may prefer different strategies. Any strategy by one agent will have some pay-off to itself, and different pay-offs to others. It may even happen that a positive pay off

to one agent may install a negative pay off to others. As stake holders all of them are allowed to opt for their own strategy (without compulsion or enforcement).

2.3.1. The Evolutionary Model

The theory of natural selection and inheritance is a clue to survival and the acceptance of successful strategies in social behaviour. There are two distinct aspects of evolutionary model, namely, the evolution of social norms and the evolution of participatory institutions to protect the natural resources against the degradation. The latter, however depends on the forest. Evolving social norms of behaviour-away from the pursuit of self interest is a long drawn-out-process. It depends upon the level of understanding about the outcomes of collective action, obligations required, responsibilities to be delegated, and restrictions on individual behaviour. Furthermore as argued by Ostrom (2000), they are more stable if and when evolved internally than when imposed externally.

A related question about the evolution of social norms is the preference ordering of different perspectives, expectations about the outcomes, responsibilities, restrictions about common property resources. For instance, is there a preference ordering between economic relevance versus social relevance, as a case for survival of the Common Property Resource (CPR) institution. This is a question about the strategy of an evolutionary process. Economic relevance would prompt gains from the CPR management in terms of what the community gets in monetary terms or resource gains. Social relevance is attributed to concerns such as harmony, unity, mutual dependency, cultural and religious customs, and social security. The growth of participatory institutions itself can be evolutionary.

The evolution of institutions in India can be examined with the help of some evidence. One can trace at least three broad strains of thought through which institutions to manage CPRs have evolved. First, traditional societies in India have evolved systems to manage them through a process of conflicts, earnings, and mechanisms to resolve them. Basically, local convention has prevailed to guide the use pattern of such resources. The tribals of India have always dealt with this issue in this evolutionary manner. The institution of shifting cultivation in north-eastern part of India is another example to cite. Second, there is a process of customary

laws recognized by the Government, empowering the tribal communities to enjoy several CPRs. For instance, the Indian National Forest Policy document of 1988 clearly recognizes the rights and concessions to the tribals and locals regarding grazing lands, collection of Non Timber Forest Produce, etc.

The third strain of CPRs institutions emerges whenever the market mechanism fails to manage and maintain, or failure on the part of the state to 'police' public resources. One good example is the emergence of the village protection committees under JFM institutions (The National Forest Policy, 1998) which envisages people's involvement in the development and protection of forests. The requirement of fuel wood, fodder and small-timber such as house-building material of the tribals and other villagers living in and near the forests, are to be treated as first charge on forest produce. The policy document envisages it as one of the essentials of the forest management that the forest communities should be motivated to identify themselves with the development and protection of forest from which they derive benefits.

Following the theoretical support and the legal procedure as stated in Indian forests laws, all state forest have to be managed on the basis of forest management plans usually covering a period of ten years. Currently about eighty percent of all state forest areas in India are covered by forest management plans. The management of forests will need to incorporate the management of people and their livestock. On 16 January 1998, the Government of Kerala issued through the Forest and Wildlife Department Participatory Forest Management Guidelines (No.8/98). A village forest committee is to be established which will prepare a micro plan through a process of Participatory Rural Appraisal (PRA) involving all stakeholders and will include many forest specific aspects, including

1. Prescription for the management of forests under the control of the Village Forest Committee,
2. Production of fuel wood, timber, fodder and other forest produce including annual harvesting quantities,

3. Prescriptions of measures for the control of excessive biotic pressure on forest,
4. Provision of sustainable management prescriptions for the area by detailing harvesting practices including area allotted for harvesting and the calculated timber yield,
5. Preparation of a distribution plan for all forest benefits,
6. Specification of the activities to be supported by the Forest Department including a detailed strategy for those activities where funding will be needed from other sources,
7. Elaboration on specific aspects of resource management such as forest protection, (i.e, sivicultural practices, regeneration, rehabilitation, soil and water conservation), NTFP development (i.e., planting and maintenance of fuel, fodder, medicinal plants, pasture, green manure and other activities promoting the sustainable harvesting and improved marketing of NTFP by value addition.

Chapter 3

Profile of the Study Area

PROFILE OF THE STUDY AREA

Attappady is an extensive mountain valley, located between $10^{\circ}55'10''$ and $11^{\circ}14'19''$ North latitude and between $76^{\circ}27'11''$ and $76^{\circ}48'8''$ East longitude, stretching from Mukkaly to Anakkatty and Thazemully to Muthikkulam covering an area of 745 sq.km in Mannarkad Taluk of Palakkad District, Kerala State, South India. Attappady is essentially a plateau rising from the undulating midlands beyond the east of Mannarkad taluk to a height of 750-1000 metres. This area is flanked by mountain ranges, the Nilgiris in the north, and extensions of the Western Ghats in the south and the east.

The terrain of Attappady is marked by hills and valleys, particularly high mountains and narrow valleys in the western half. The area lies in between two ranges of the Western Ghats and the general slope of the area is towards north-east. Once the hump-like mountain range from the Mannarkad is crossed, the plateau slides gradually towards the east and merges with the elevated plains of Tamil Nadu. From the south-west, the elevation increases from 90 to 550 m at Mukkali. From Mukkali to Anakkatty towards the east, the elevation is between 500 and 575 m. The northern boundary of Attappady block lies at an elevation of around 2300 m in the Nilgiris peak. From there it decreases along the south-west and later climbs up to 2000 m at Muthikulam.

The highest peak Malleeswaram that has a height of 1664 m is visible from most of the locations in Attappady. The tall hills of the Nilalgriris are in the Western Ghats (2300 m above MSL) border the north and east in the Muthikulam hills (2000 m above MSL) from the south west boundary of the Attappady block. At the Northern and Eastern boundaries of the area are Nilgiri and Coimbatore Districts and 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. Administratively Attappady Development Block consists of the three panchayaths of Agali, Pudhur, and Sholayoor in Palakkad District.

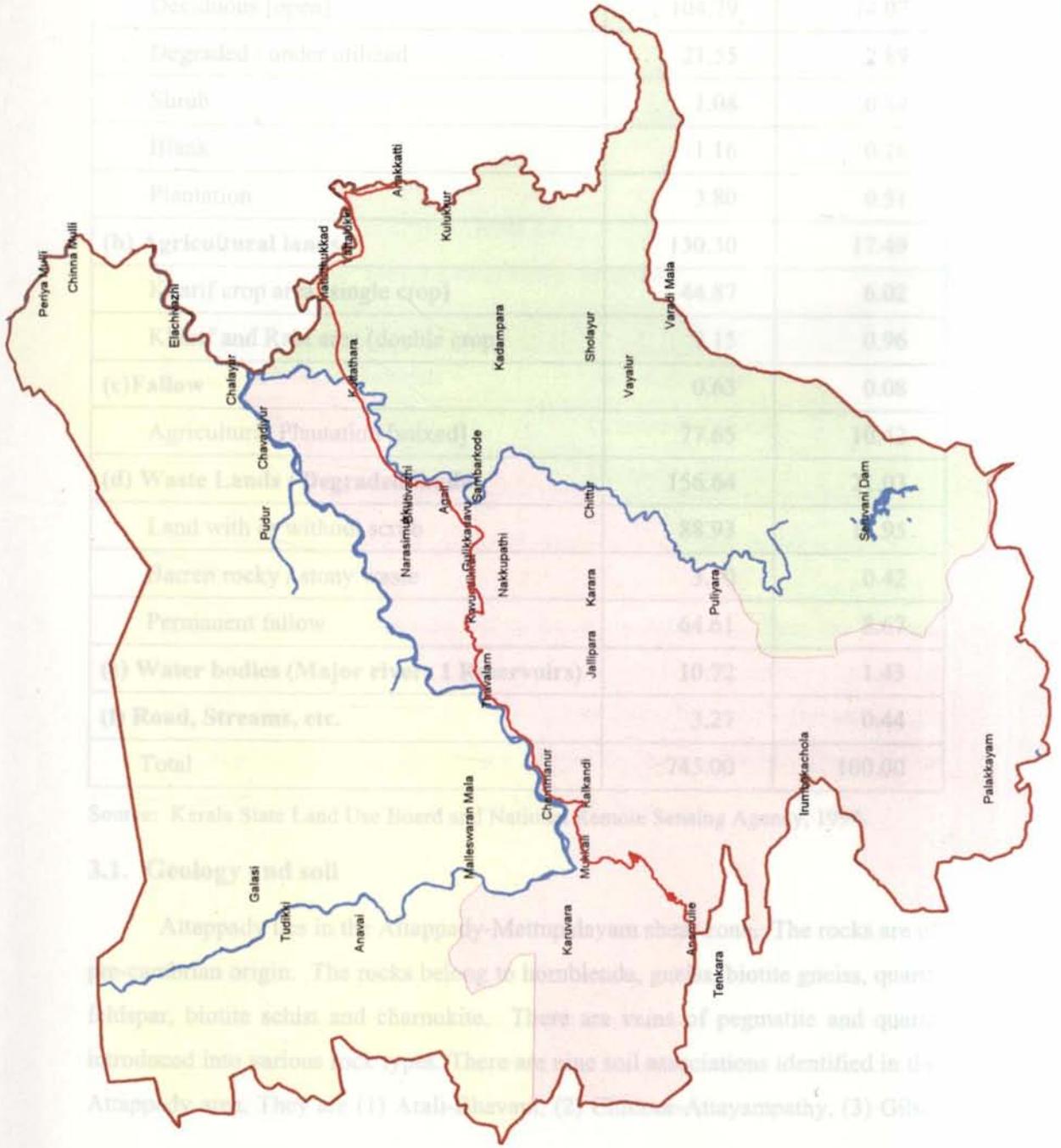
On the basis of geographical and climatic peculiarities it is possible to differentiate the region into two zones, viz., Western Attappady that receives above 3000 mm annual rainfall and Eastern Attappady, which is a rain-shadow region receiving less than 1000 mm of average annual rainfall. Erratic rainfall with poor soil moisture retentivity has rendered these lands an erosional landscape leading to desertification. The total land area is spread over three Panchayaths (local Self-Government institutions) namely Agali, Pudhur and Sholayoor.

Table 3.1 shows the land use in Attappady which exhibits that the total area of 745 sq.km is distributed to various land divisions. Nearly 130 sq.km of land area is utilized for agriculture. About 63 sq.km of area are fallow land 157 sq.km of land area is distributed as waste land of which the main factor is that which is degraded area. 11 sq.km of area is filled with major water bodies, 3 sq.km of land is covered with road and streams. The details of the type of forest in Attappady are also shown in the table. Of the total land area of 745 sq.km forest area constitutes 444.07 sq.km, of which evergreen/semi evergreen dense forest constitutes 146.16 sq.km, evergreen/semi evergreen open forest constitutes 40.38 sq.km, deciduous dense forest has an area of 125.15 sq.km, deciduous open forest is 104.79 sq.km, degraded/underutilized forest is in the area of 21.55 sq.km and 1.08 sq.km is under scrub. About 1.06 sq.km of area is blank land and the rest 3.80 sq.km of area is under plantations.

Waste land/degraded land constitutes 156.64 sq.km, which 88.93 sq.km of land is with or without scrub. Barren rocky lands are distributed in the area of 3.10 sq.km and permanent fallow land occupies an area of 64.61 sq.km. Major water bodies are spread over 10.72 sq.km of area and the road and streams constitute the rest 3.27 sq.km of the land area.



0.0 1.5 3.0 4.5 6.0 7.5 km



LEGEND

- Block boundary
- Anakkattay - Mannarkkad Road
- Agali Panchayath
- Pudur Panchayath
- Sholayur Panchayath
- Rivers

Table 3.1.
Total land area in Attappady

Land use/ land cover categories	Area (sq.km)	% to total area
(a) Forest	444.07	60.00
Ever green / semi ever green (dense)	146.16	19.63
Ever green semi ever green [open]	40.38	5.42
Deciduous [dense)	125.15	16.80
Deciduous [open]	104.79	14.07
Degraded / under utilized	21.55	2.89
Shrub	1.08	0.14
Blank	1.16	0.16
Plantation	3.80	0.51
(b) Agricultural lands	130.30	17.49
Kharif crop area (single crop)	44.87	6.02
Kharif and Rabi area (double crop)	7.15	0.96
(c)Fallow	0.63	0.08
Agricultural Plantation [mixed]	77.65	10.42
(d) Waste Lands / Degraded lands	156.64	21.03
Land with or without scrub	88.93	11.95
Barren rocky / stony waste	3.10	0.42
Permanent fallow	64.61	8.67
(e) Water bodies (Major rivers 1 Reservoirs)	10.72	1.43
(f) Road, Streams, etc.	3.27	0.44
Total	745.00	100.00

Source: Kerala State Land Use Board and National Remote Sensing Agency, 1994.

3.1. Geology and soil

Attappady lies in the Attappady-Mettupalayam shear zone. The rocks are of pre-cambrian origin. The rocks belong to hornblende, gneiss, biotite gneiss, quartz feldspar, biotite schist and charnokite. There are veins of pegmatite and quartz introduced into various rock types. There are nine soil associations identified in the Attappady area. They are (1) Arali-Bhavani, (2) Chittoor-Attayampathy, (3) Gils-

Thekkuppana, (4) Mamana-Thavalam, (5) Rock out crops-vattakkallumala, (6) Rock-out crops-elathodu, (7) Thekurissi-Ponnani, (8) Vattakkallumala-Sethumada, (9) Vattakkallumala-Rock-out-crops,

3.2. Climate

Attappady region falls in the “High Altitude Zone”. The altitude varies from 750 to 1000 MSL. Attappady range enjoys a cool humid climate during rainy season. The slope facing west receives rainfall of about 3000 mm annually, whereas area closer to Tamil Nadu boundary, that is, beyond Mukkali receives only 1000 mm annually. The rain shadow effect in the eastern side is due to the high and steep hills on the western region. Deforestation has brought about dramatic changes in the Attappady ecosystem affecting cultivation.

Table 3.2.

Seasonal variations in Attappady

Season	Period
South-west Monsoon	June-September
North-east Monsoon	October-November
Winter	December-February
Hot weather	March-May

Source: AHADS, 2001

Table 3.2 indicates the seasonal variations in Attappady. Here the changes in seasonal variations show that South-west monsoon is received by people in Attappady between June-September. The months from October-November are the season for North-East monsoon. Winter occurs during the months December to February and the hot whether is between March to May.

3.3. Rivers

The main rivers in Attappady are Bhavani, Siruvani, Varagar, Kodangarapallam, Kunthipuzha. Siruvani, Varagar and Kodangarappallam are the tributaries of River Bhavani. Attappady lies to the east of the main Western Ghats watershed line and drains to the east to River Cavery through Bhavani and her tributaries, Siruvani and Kodungarapallam. River Kunha joins Bhavani in Tamil

Nadu at a place called Athikadavu. Attappady is essentially a plateau at an approximate elevation of 500 m above sea level, which is dissected by Bhavani, Siruvani and Kodungarapallam into a series of valleys.

River Bhavani originates in the south west corner of the Nilgiris in the Kundha hills of Tamil Nadu and after flowing for a few kilometers southward it enters Kerala through a deep gorge and continues to south for another 20 km, between two high forested ridges till Mukkali. At Mukkali, Bhavani takes an abrupt 120° turn towards the north east and flows for another 25 km to Attappady in Kerala till it reaches Koodapetti in the Kerala-Tamil Nadu border. The initial course of the river is steeply descending, thereafter it flows gently without descending much till it exits from the State. At the Koodapetti, Siruvani and Kodungarapallam, flowing from the south and south east respectively, join Bhavani. The Kundha River coming from north, draining an extensive extent of the Nilgiris form the boundary between Kerala and Tamil Nadu for five km along the north eastern side of the Attappady. It then joins Bhavani on its left flank in Tamil Nadu. Thereafter Bhavani flows east along the base of Nilgiris. Siruvani, originating in the south western corner of Attappady plateau in the high rain drenched and heavily forested Muthikulam hills, descends rapidly to the Attappady plateau and flows north east tangentially across Attappady towards its confluence with Kodungarapallam. During its 35 km course through Attappady it receives a number of tributaries of which five important ones are from the Varadimala slopes joining it on the right flank. There is only one important tributary joining it on the left flank and it comes from the northwestern slopes of the Muthikulam hills. Kodungarapallam, from near its origin in the Perumalmudi in the southeast corner of the Attappady, flows north along the inter-State boundary for its entire length of 35 km. It joins Siruvani and together they empty into Bhavani at Koodapetty.

3.4 Land use pattern

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, in the economic well-being of the people and in the environment and natural resources (Blaikie and Brookfield, 1987). For instance, in Attappady compared to the situation five decades back, 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, 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 tribe's folk to increasing dependence on the Government for assistance. The dangers, in most cases, are irreversible or reversible only over a long period. The negative changes plainly visible in the area relate to (1) land degradation affecting the resource base, (2) persistent decline in crop yield which affect the livelihood of inhabitants and (3) increased unfeasibility of a specific cropping pattern as a result of which resource management has become a tedious task. Table 3.3 provides the details about the land division in Attappady.

Table 3.3.
Land division in Attappady

Division	Area (ha)
Extent used for the purpose other than agriculture	1129.14
Uncultivable savannah and other cattle grazing land	4957
Permanent savannah and other cattle grazing land	500
Other trees cultivating area	1100
Cultivable waste lands	298
Area sowing more than once	539
Total cropping area	8253.14

Source: Development Report, 2001.

About 1129.14 ha of land is used for the purposes other than agriculture, 4957 ha are uncultivated and other cattle grazing land, 500 ha is permanent land with other cattle grazing land, 1100 ha is with other trees cultivating area, 298 ha is with cultivable waste land, area of 539 ha are divided for area sowing more than once and the total cropping area is 8253.14 ha.

The total number of households in Attappady is 16,724. The operational land holdings are 11,405 in numbers, of which 6,685 are below one hectare and 2,715 are between one and two hectares. The tribal communities live rather close to each other in 189 hamlets whereas the inhabitation of the settlers is much more dispersed. One third of the total population is associated with agricultural activities and there are 11,003 agricultural labourers. Table 3.4 and 3.5 presents the details regarding land lost by tribals and changes in land use in Attappady.

Table 3.4

Land lost by tribals in Attappady

Panchayath	Land lost (in acres)		Total area lost during
	1977-1986	1987-1999	1977-1999
Agali	4487.90	N.A	4487.90
Sholayoor	3631.66	N.A	3681.66
Pudhoor	1986.63	N.A	1986.63
Total alienated land	10106.19	636	10156.19

Source: Development Report, 2000

Table 3.5.

Changes in land use (area in sq.km) since 1971.

Category	1971	1989
Agriculture	178.10	52.00
Dense forests	406.37	164.00
Scrubs/Grass land	28.30	152.80
Barren/Rocky		233.80

Source: Center for Water Resource Development and Management, 1994.

Most of the data relating to changes in land use are not available since 1971. From the given table it is clear that the genesis of land degradation in Attappady is very complex. The resource base of Attappady was always laid open for exploitation by the Jemmis, British, planters, officials, settlers, and even the so-called aboriginal tribals. The area, in later stages, specifically in the past two decades has received attention of researchers, freelance writers, social workers, and politicians. Attappady has to remain degraded forever 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.

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 indigenous population from the land. Still for another group the resource and the people were mere instruments for experimentation. Now the area is confronting new form of degradation other than resource degradation, that is, debasement of human relations. In short, during the past one or two decades, even though the area witnessed a wide range of activities aimed at its development, Attappady is steadily degrading.

The Government is equally guilty of the exploitation of tribe's folk. Instead of preserving their lands the Government aided and abetted the migrant settlers in their efforts at displacing and dispossessing the tribals. Government had spent, till that date, on an average, Rs 25 lakh per Adivasi family. If this amount had actually reached the targeted people, Attappady would have already turned into a paradise. Resources intended for development of Attappady must have leaked away into unintended directions. 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 (Sanathanan, 2000).

The western slopes of Attappady hold relatively denser vegetation. Indiscriminate denudation of land and the practice of shifting cultivation once

prevalent in this tract have turned the cultivated land into several patches, especially on the embankment of rivers and rivulets. These patches are under paddy, coconut, areca nut, tapioca, banana, ginger, turmeric, vegetables, etc. Plantation crops like coffee, cardamom and clove are cultivated mostly on the southern and western slopes. The eastern slopes are predominantly under dry-land agricultural crops, which include chama, sorghum, ragi, groundnut, and sunflower. Both in the eastern and the western slopes, wherever irrigation facilities are available, sugarcane, cotton etc. are cultivated. The western slopes carry a wide variety of forest species commonly found in other parts of the Western Ghats. But the eastern slopes contain scanty vegetation, predominantly deciduous and thorny in nature.

3.5. Forest

The 444 sq.km of forestland in Attappady, which falls under the administrative jurisdiction of the Mannarkkad Forest Division, holds four different forest types – West coast tropical forests, Southern tropical dry deciduous Forests, Southern mountain wet temperate Forests and Southern euphorbia Scrub. While some of these forest types are intact in western Attappady, the forest types and species in the eastern region have become shattered due to biotic interferences such as uncontrolled illicit cuttings of trees and open grazing over the years. On account of such wide spread deterioration of the forests, the Attappady tract has been included in the restoration zone of the Nilagiri Biosphere Reserve.

The thick forests in the Western region greet a person who enters Attappady from Mannarkkad. But as one moves from West to East towards Anakkatty, the village bordering Tamil Nadu, gradual thinning of vegetation becomes more and more visible. In general, the hillocks on the eastern side of Attappady have all become open with isolated trees standing covered with vegetation although the type of vegetation is distinctively like that of drier lands. The stretches of forests vary in density and composition. The forest was the tribe's folk's home and not just their house. It was their religion, culture, values, life style, ethos, special norms, knowledge and associated science, technology, and skills. The tribe's folk were integral to the forest eco-system. But the British created havoc on their livelihood

by passing a law in 1865 vesting forest under Government control. With this legislation the tribe's folk, the original owner of forest, became trespassers in their own home, the forest, and began to be victimized by externally motivated systems of forest management that directly violated various facets of their economic and cultural survival.

Table 3.6 provides the information with respect to types of forest in Attappady

Table 3.6.
Type of forest in Attappady

Land use / land cover categories	Area (sq.km)	% to total Forest area
Ever green / semi ever green (dense)	146.16	32.91
Ever green semi ever green [open]	40.38	9.09
Deciduous [dense]	125.15	28.18
Deciduous [open]	104.79	23.60
Degraded / under utilized	21.55	4.85
Scrub	1.08	0.24
Blank	1.16	0.26
Plantation	3.80	0.86
Total Forest Area	444.07	32.91

Source: Kerala State Land Use Board and National Remote Sensing Agency, 1994

The forests of Attappady mainly fall in Forest (Vesting and Assignment) Act, 1971. Felling of trees for meeting the Government's requirements, uncontrolled and illegal felling, continuous grazing pressure as well as under-productive hillocks are the causes for deforestation. When the devastation of human and livelihood support systems followed and the consequent rise in unemployment and poverty are juxtaposed with this, the need of eco-restoration becomes all the more evident.

Till about 1960 tribe's folk relied upon forest for food, fodder, fuel, and wood for agricultural implements and for construction and repair of their huts. The process of deforestation accelerated after 1960 particularly with the increase in

wood-based industries such as paper and rayon. The Government of India also tried to convert natural forests into plantations of revenue-yielding trees such as teak, pine, and eucalyptus. Gradually the subsistence base of the tribe's folk was eroded and they began to encroach upon wastelands and to migrate seasonally to urban areas in search of work. Owing to forest privatization the tribes folk lost their sources of food, fuel and fodder, and also certain essential things for daily life like twigs of neem huts, and weaving baskets, grass to make brooms and plants and their products for preparing their herbal medicines. Every change brought changes in their worldview. Deforestation caused the extinction of several species of medicinal plants. Roads enabled outsiders to enter into the forest without difficulty. Their aim was felling trees for their economic value. In the process, they also stole forest wealth such as honey, wild gooseberry, dadukka, animal's tusks, and nagarathanam. They also developed a good mafia for ganja cultivation.

Both tribal men and women were attracted to liquor, ganja, and beedi given to them by outsiders. Now most of them are addicted to liquor and ganja. Most of them smoke beedi or cigarette. Loss of social solidarity and sharp increase in the number of unwed mothers are all the features of the tribal society today. Tribe's folk have been enslaved and tribal culture degraded. Tribal women have been the greatest sufferers. About 80 per cent of the area of Attappady is under forest, (mostly denuded) as against 27 per cent in the State. Revenue forests cover 210 sq.km. Bamboo is a very common plant in the area. Many medicinal plants grow wild in the forest. Trees such as Teak, Rose wood, Chadachi also grow well here. Restrictions imposed on the centralization of the forests and the encroachments of tribal land by settlers have caused much uncertainty in the subsistence economy of the tribal people. It is one of the countless stories of alienation of tribal societies all over the world. Tribal communities in Attappady comprising mainly of Irulas, Mudugas and Kurumbas had situated in an area abounding in timber wealth, forest produce, and wild life. In fact it was this vast wealth, which attracted outsiders to this area. To the tribes folk nature's products had only functional use, only to be consumed according to needs. Reckless commercial use of forest produce was unknown to them. The dominant value of their society was that of co-existence of

the various forms of life in a non-exploitative and harmonious balance with one another.

Table 3.7 indicates the forest area in Kerala and it shows that the total forest area in Kasargode, Kannur, Wayanadu and Kozhikodu are 1701 ha. In Malappuram, forest area comprises 827 ha. In Palakkad, it is 1373 ha. About 880 ha constitute forest area in Thrissur. In Ernakulam district total forest area comprises 272 ha. In Alappuzha forest area constitutes 7 ha only. About 81 ha are forest area in Kottayam. In Idukki total forest area is 2536 ha. In Pathanamthitta and Kollam forest area constitutes 2265 ha. In Trivandrum 394 ha falls under forest area. Total forest area in Kerala constitutes 10,336 hectares.

Table 3.7
Forest area in Kerala

Districts	Land Area	Deciduous dense forest	Deciduous open forest	Total	% of forest in total land area
Kasarkode Kannur Wayanadu Kozhikodu	9398	1332	369	1701	18.10
Malappuram	3674	724	103	827	22.51
Palakkadu	4392	945	428	1373	31.26
Thrissur	3031	807	73	880	29.03
Ernakulam	2408	251	21	272	11.29
Alappuzha	1883	7	-	7	0.37
Kottayam	2204	57	24	81	3.67
Idukki	5061	2226	310	2536	50.11
Pathanamthitta Kollam	4620	1755	510	2265	40.02
Trivandrum	2192	317	77	394	17.97
Total	38863	8421	1915	10336	26.59

Sources: Forest Survey of India, FSI 1998.

3.6. Agriculture

Table 3.8 shows the details of Paddy cultivation in Attappady. About 181 ha of land are distributed for virippu, 153 ha are utilized for mundakan and the rest 50 ha is set apart to puncha cultivation.

Table.3.8
Details of Agriculture

Details of Paddy Cultivation	Area(ha)
a. Virippu	181
b. Mundakan	153
c. Puncha	50
Total	384

Source: Development Report, 2001

Agriculture was the main source of livelihood for most of the people in Attappady. With the large-scale influx of settlers the tribals dependence on forest began to disappear tremendously. Agriculture used to be supplemented by collection of forest produce and hunting. However the share of forest produce and hunting as the source of livelihood started dwindling due to massive destruction of the forest and unsustainable extraction of forest produce.

The western and south eastern slopes with copious rainfall carry all types of vegetation common in other parts of Western Ghats viz, paddy, coconut, areca nut, tapioca, banana, ginger, turmeric, vegetables, plantation crops like coffee, tea, cardamom, clove etc. The eastern slopes are predominantly under agricultural crops, which include chamai, sorghum, ragi, red gram, groundnut cotton etc. But sugarcane, banana and coconut are generally cultivated at riverbeds of eastern Attappady.

3.7. Irrigation

The total irrigated area in Attappady is 6600 ha. Till now no major irrigation projects are implemented by the Government. There are no minor irrigation projects as well. There are thirty-seven lift irrigation projects. In addition to these there are 310 ponds and 578-wells. Major problems in Attappady emanate from lack of water facilities. As a result agricultural operations cannot be utilised in full swing. Lack of water makes agricultural operation difficult. The details of water facility are presented in Table No.3.9

Table 3.9
Details of irrigation

Type of irrigation	Numbers
Major Irrigation Projects	Nil
Minor Irrigation projects	Nil
Lift Irrigation Projects	37
Ponds	310
Wells	578
Total irrigated area	6600(ha)

Source: Development Report, 2001.

Table 3.10 shows the details of the production and productivity of major crops in Attappady. About 384 ha of land are utilized for paddy cultivation, of which production is 9380 quintals and the productivity is 3500 kg/ha. Coconut cultivation is concentrated in an area of 1240 ha and the production is 8308000 numbers. The productivity is over 6700 Nos/ha. Ground nut production is distributed in an area of 3850 ha, and production is 61600 quintals and productivity is 1600 kg/ha.

Areca nut production takes place in an area of 620 ha, the production is around 63240 quintals and productivity is 102.00 quintals/ha. Plantain is cultivated in 1480 ha and its production is 356000 quintals and the productivity is 18000 kg/ha. Sugarcane is grown in an area of 220 ha and the production is 66000 quintals and productivity is 30000 kg/ha. Ginger cultivation is distributed in an area

of 570 ha, its production is 17670 quintals and productivity 3100 kg/ha. Turmeric is cultivated in an area of 460 ha and its production is 12420 quintals. Its productivity is 2700 kg/ha. Cotton is another important crop. Its cultivation falls in an area of 1280 ha. Its production is 32560 quintal and productivity is 2200 kg/ha. Pepper cultivation is concentrated in an area of 27010 ha, and its production is 27010 quintals, productivity is 3700 kg/ha.

Table 3.10
Production and productivity of major crops in Attappady

Crop	Area	Production (Quintal)	Productivity (kg/ha)
Paddy	268	9380	3500
Coconut	1240	8308000 nos	6700 nos/hr
Ground nut	3850	61600	1600
Areca nut	620	63240	10200
Plantain	1480	356000	18000
Sugarcane	220	66000	30000
Ginger	570	17670	3100
Turmeric	460	12420	2700
Cotton	1280	32560	2200
Pepper	730	27010	3700
Coffee	320	1760	550
Tapioca	130	63000	21000
Tuber Crops	240	--	--
Cashew	330	4290	1300
Vegetables	450	36000	8000
Cholam, Ragi, thina etc of short term crops	420	3360	800

Source: AHADS, 2002

Coffee is concentrated in an area of 320 ha. Its production comes 1760 quintals and productivity is 550 kg/ha. Tapioca cultivation falls under an area of

130 ha. Its production is 63000 quintal and productivity 21000 kg/ha. Tuber crop is cultivated in an area of 240 ha. Cashew is concentrated in an area of 330 hectares, its production 4290 quintals and its productivity is 1300 kg/ha. Vegetable is cropped on the area of 450 ha and the production is 36000 quintals and its productivity is 8000 kg/ha. Short term crops of cholam, ragi, thina are cultivated on the area of 420 ha, of which its production is 3360 quintal and its productivity is 800 kg/ha.

Table 3.11
Details of cultivated area

Size of holding	Scheduled caste	Scheduled tribes	Settlers	Total
Below 1 Ha.	447	3006	3604	7057
1 to Ha.	188	3043	4169	7400
2 to 4 Ha.	90	344	751	1185
4 to 10 Ha.	--	11	215	226
Above 10 Ha.	--	--	7	7

Sources: Development Report, 2001.

Table 3.11 shows the size of holdings of the scheduled tribes, scheduled castes residing in the area and the other non tribals. About 3006 tribals possess the land below one hectare per family, and 447 scheduled castes have below one hectare of land per family and 3604 non tribals belong to this category. About 3043 tribals have one hectare of land, of which 188 scheduled castes possess one hectare of land, about 4169 non-tribals of are also in this category. About 344 tribals possess 2 to 4 hectares of land, 90 scheduled tribes are in this category, and 751 settlers possess 2 to 4 hectors of land. Nearly 11 tribals have 4 to 10 hectares of land, no scheduled tribe has this much land as their own but 215 non tribals possess this much vast areas of land there. No tribals have above 10 hectares of land and no scheduled castes belong to this category but seven settlers possess above 10 hectares of land.

3.8. Socio-economic situation in Attappady

3.8.1. Demography

As per the 1991 census, the population of Attappady was 62,033, comprising of 24,228 tribals and 42,600 settlers. During 2001 total population increased to 67672, of which tribal population formed 28711. The tribal population had constituted a minority due to the large-scale influx of settlers from within Kerala as well as from the neighbouring States of Tamil Nadu and Karnataka.

Table 3.12
Population Profile in Attappady

Total population (lakhs)		Tribal Population		Non-tribal population	
Year	population	Population	%	Population	%
1951	11300	10200	90.26	1100	9.74
1961	21431	12972	60.45	8459	39.55
1971	39183	16536	42.21	22647	57.79
1981	62246	20659	33.19	41587	66.81
1991	62033	24228	39.06	37805	60.94
1998	62583	25447	41.00	37136	59.00
2001	67672	28978	43.00	38171	56.00

Source: AHADS, 1998, ICDS, 2002

Table 3.12 shows the details of the population profile of Attappady. Total population in Attappady in 1951 was 11,300, of which tribal population was 10200 and non-tribal population was 1100. The population increased to 21461 in 1961, of which tribal population was 12972 and non-tribal population was 8459. Total population in 1971 was 39183, of which tribal population was 16536 and non-tribal population was 22647. There was a tremendous increase in total population during 1981. Main reason for this was the increase in non-tribal population to 41587 and tribal population to 20659. From the table it is clear that large scale immigration

into the Attappady occurred during this time. There was no increase in total population during 1991, total population was 62033, of which tribal population was 24228 and the non-tribal population was 37805. During 1998 total population was 62854, of which tribal population was 25447 and non-tribal population was 34136. But in 2001, Total population increased to 67672, of which tribal population was 28711 and non-tribal population was 34171.

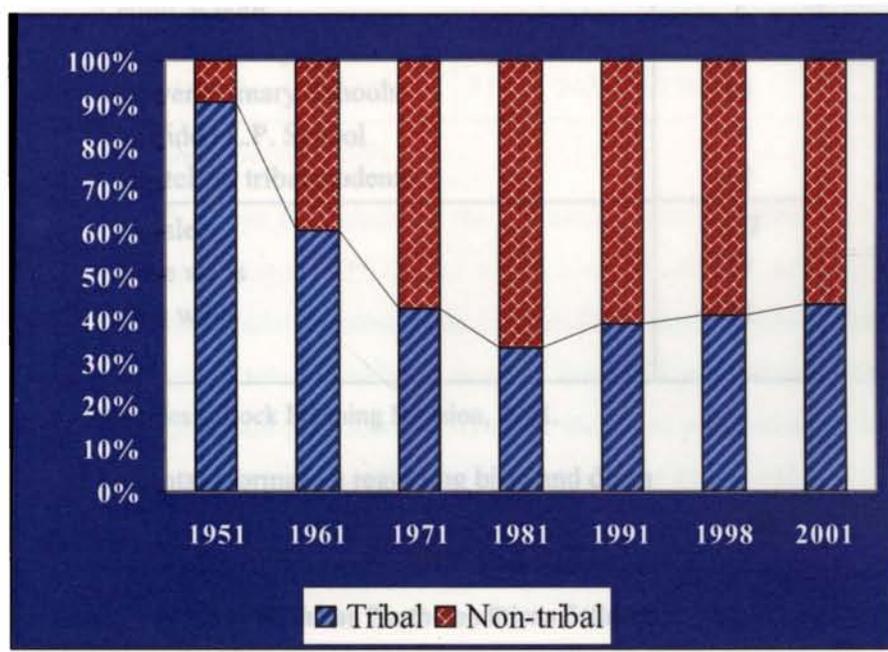


Figure 3.1. Trend in percentage of tribal and non-tribal population in Attappady

Infrastructure facilities available in Attappady are a very poor. There are seven allopathic hospitals, four public health centres, two Ayurvedic hospitals and three Homeo clinics. There are seven high schools, three upper primary schools, 15 lower primary schools and three un-aided lower primary schools. There are twelve hostels for tribal students and 187 hamlets. There are 37 bore wells and twenty eight dug wells. Details about these are presented in Table3.13

Table 3.13
Infrastructure in Attappady

Hospitals	Numbers
Allopathic Hospitals	7
Public Health Centers	4
Ayurvedic Hospitals	2
Homeopathic Clinic	3
Educational Institutions	
High School	7
Upper Primary Schools	3
Lower Primary Schools	15
Unaided L.P. School	3
Hostel for tribal students	12
Hamlets	187
Bore wells	37
Dug wells	28

Sources: Block Planning Division, 2001.

Table 3.14 presents information regarding birth and death

Table 3.14
Birth and Death Conditions Estimates

Rate(per thousand)	Attappady	Kerala	India
Birth rate	12.0	16.0	19.0
Death rate	5.0	6.0	10.9
Death rate of below 1 year	20.0	25.0	90.0
Death rate of mothers	-	1.3	3.4
Protection rate of couples	75.0	60.0	37.5

Source: Development Report 2001

From Table 3.14, it is clear that the birth rate in Attappady is 12.0 as compared to all India level (19.0) and Kerala (16.0). Death rate in Attappady is 5.0, 10.9 in India and 6.0 in India and Kerala, respectively. Death rate of below one year child is 20.0 which is less than that of India (90.0) and Kerala (25.0).

Table 3.15.

Population and Literacy at Panchayaths Level

Panchayath	Households	Population	S.C	S.T	Literates		
					Male	Female	Total
Agali	7082	32738	1422	9507	10479	9024	19503
Pudhur	3018	12354	494	7130	2520	1583	4103
Sholayoor	4119	16914	1257	7591	4026	3106	7132
Total	14219	62033	3173	24228	17015	13713	30738

Source: Block Planning Division, 1991

Table 3.15 shows the details of the population and their literacy level. In Agali the total population was 32,738, of which total households were 7082. Here the scheduled caste population constitutes 1422 and the tribal population was 9507. In Pudhur panchayath, total households number was 3018 and the total population is 12354, scheduled caste population is 494 and the tribal population, 7130. Total population in Sholayoor panchayath is 16914, number of households, 4119. Total scheduled caste population is 1257, and tribals, 24228.

While literacy rate in the overall population is less than 50 per cent, it is further poor among the Scheduled Tribes (38.62%). Almost 83 per cent of the population of Attappady lives below the poverty line. In sharp contrast to the rest of Kerala, the overall literacy rate in Attappady is only 49.55 per cent. The dropout rate in the educational institutions in Attappady is high and the educational infrastructure is poor. This may be noticed as one of the most important reasons for deterioration of the tribals in the present generation.

3.8.2. Livestock and Poultry Resources

During earlier times livestock was one of the most important occupations of the tribals in Attappady. They had enough place for grazing and cattle rearing. From the output they received from cattle rearing they maintained their life condition very satisfactorily and self-sufficient. They did not sell milk and other products. In some of the hamlets even now they practice cattle rearing as their most

important occupation. But they face severe problems, due to shortage of place for grazing and lack of grass and fodder. Livestock development was one of the thrust areas under the Integrated Tribal Development Project (ITDP) implemented in Attappady. However, the tribal communities now mostly rear cattle belonging to people of the adjacent plains in Tamil Nadu and also the settlers within Attappady. The livestock consists of cattle, buffaloes, sheep, goat, donkeys and pigs. The poultry consists of fowls and ducks. The total population of livestock and poultry in Attappady as per the 1987 census was 42,596 animals and 35,507 fowls. The details are given in Table 3.16

Table 3.16.
Livestock Population (in Nos) in Attappady

Categories	Agali	Pudhur	Sholayoor
Cattle and Buffaloes	7579	4392	10613
Sheep & Goat	4547	7179	3010
Fowls & Duck	18340	6198	10969
Donkeys	---	34	---
Pigs	194	---	36

Source: Development Report, 2001.

3.9. Road Facilities

Attappady has a large network of roads connecting the 131 hamlets. But the condition of most of these roads does not permit motoring. The State roads here are a standing testimony to the mismanagement of development funds. The access paths connecting the hamlets with one another are made of loose soil.

3.10. Health

Health facilities prevailing in Attappady are not sufficient to meet the necessary health conditions of the tribals. In spite of the health facilities already existing in the tribal areas, tribals of certain localities are found to be suffering from communicable as well as malnutrition based diseases. The tribals are facing

severe problems including inability to get timely treatment for patients who need emergency treatment.

Most of the hamlets lack basic facilities for maintaining sanitation and environmental hygiene. This is also a reason for the health problems in the hamlets. Stagnant pools of wastewater, littered solid and plastic waste and small heaps of cow-dung are a common sight around the hamlet. Table 3.17 provides information regarding health centers in Attappady.

Table 3.17
Health Centers in Attappady

SI No	Type of hospitals	Numbers
1	Public Health centers	4
2.	Sub Centers	28
3.	Homeo Dispensaries	3
4.	Ayurvedic Hospitals	2
5.	Traditional Treatment Centers	10
6.	Private Hospitals	5

Sources: Block Planning Division, 1998

Table 3.17 shows that there are four public health centers and 28 sub-centers. The number of Homeo dispensaries is three and two Ayurvedic hospitals are available here. There are about 10 traditional treatment centers and five private hospitals. The facilities in the hospitals are limited, forcing the people to go to Coimbatore for advanced medical treatment. Out of the 187 hamlets in Attappady, 37 have bore wells, 28 have dug wells and 26 have pipe water supply. The rest of the hamlets depend on natural streams and springs for drinking water. So the availability of safe drinking water is a problem even during the rainy seasons. Consequently, there is a high incidence of water-borne diseases in Attappady.

Frequent occurrence of contagious diseases like cholera, jaundice and other health problems hunt the tribal settlements. While several diseases generally associated with malnutrition and poverty such as leprosy, cholera, tuberculosis and diarrhoea are widespread among the tribal people of Attappady; many other diseases that are usually associated with affluence such as blood pressure, diabetes and paralysis are also found in an increasing rate in the area. Habits such as smoking and drinking have remained a bane of the area that inflicts heavy damages on the individual and the social psyche of Attappady. Inaccessibility to clean drinking water is a major problem. The productivity of agricultural and allied sectors has been poor and declining further.

3.11. Education

Educational facilities available in Attappady are inadequate to meet the needs of the population that is distributed widely in a large area (745 sq.km). Earlier the welfare activities in the State for tribals mainly concentrated on educational programmes. Economic development of these communities leading to the creation of substantial assets and ownership of instruments of production through income generating training programmes received attention only from the sixth five-year plan period. Compared to general education level the tribal education is far below. The main reason for low level of education is their peculiar nature of habitation. The social and economic condition prevailing in the tribal settlement is not conducive for better education. Lack of sufficient educational institutions in tribal areas, existence of poverty in tribal hamlets, inability to get the children from pre-primary level, lack of nutritional and health care programmes, poor enrolment and drop-out from high education etc, curtail the effective educational development among tribals in Attappady. Moreover the parents of tribal children being generally illiterate cannot insist on their children attending classes regularly.

Most of the schools have poor infrastructure and low teacher turnout, children from far-flung areas, especially the tribal children, often have to walk 10-20 km to reach the nearest schools. This perpetuates high levels of illiteracy in Attappady. The conditions of the tribal hostels are in a very pathetic situation. The

tribal hostels are run as part of the ITDP. About 35 students share one room and there are only four bathrooms in the entire hostel. So horrific is the situation of many hostels for school children that out breaks of cholera, dysentery and other diseases have become frighteningly common here.

As a development measure to improve the educational infrastructure, State Governments had bare minimum facilities. Most of these hostels are crowded and students do not have adequate basic facilities. The funds for the running of the hostels are often hard to come from the Government. Sensitivity to tribal culture, languages and livelihood systems is totally absent in the present educational system. Some times in most of the hamlets students are forced to indulge in household activities in the absence of mothers.

Table 3.18 shows that presently there are seven High Schools, three Upper Primary (UP) schools and 15 Lower Primary (LP) schools and one Model Residential school (MRS) in Attappady area. But these schools have poor infrastructure and low teacher turnout.

Table 3. 18
Educational Institutions

Type of school	Government	Co-operative	Aided	Un aided	Total
High School	3	1	3	-	7
Upper Primary	3	-	-	-	3
Lower primary	11	-	4	3	18
Model residential schools(MRS)	1	-	-	-	1

Source: Development Report, 2001

3.12. Communication

The communication facilities in Attappady are very poor and inadequate to satisfy the needs of the community. There is no head post-office. But there is one sub post office. And there are 13 branch post offices and two telephone exchanges. The details are given in Table 3.19.

Table 3.19
Communication Facility in the Study Area

Sl. No	Type of facility	Attappady Block
1.	Head Post Office	--
2.	Sub Post Office	1
3.	Branch Post Office	13
4.	Telephone exchange	2

Source: Block Planning Division, 2001.

Table 3.20 provides information regarding banking facilities in Attappady. There are branches of banks, co-operative banks, co-operative groups and other financial institutions in Attappady.

Table 3.20
Banking Facilities in Attappady

Sl.no	Panchayath	Lead bank	Scheduled bank	Co-operative bank	Co-operative group	Other financial institutions
1	Agali	3	–	3	1	8
2	Pudhur	–	1	–	–	1
3	Sholayoor	1	–	1	1	4
4	Attappady block Panchayath	4	1	4	2	13

Source: Block Planning Division.

In Agali panchayath, there are three branches of lead bank, in Pudhur panchayath there is no lead bank. In Attappady block panchayath there are four lead banks.

Only one Scheduled Bank is available in Attappady Block Panchayath, which is situated in Pudhur Panchayath. Among the 4 Co-operative Banks available in Attappady Block Panchayath, three are situated in Agali and one is at Sholayoor. There is one Co-operative group each in Agali and Sholayoor Panchayath. Many private financial institutions exist in Attappady. There are eight private financial institutions in Agali Panchayath, one at Pudhur and three at Sholayoor Panchayath. There are different names for the branches of co-operative Societies. They are (1) Palakkad District Co-operative Society (2) Attappady Farmers Co-operative Society (3) Scheduled Castes Co-operative Society. Branches of Nationalized Banks are State Bank of India, Agali. Canara Bank, Mukkali, Kottathara and Anakkatty.

Table 3.21
Financial institutions in Attappady

Co-operative banks and societies
Palakkad District Co-Operative Bank Attappady Farmers Co-operative Bank Scheduled Castes Co-operative Society
Nationalized banks
State Bank of India, Agali Canara Bank, Mukkali, Kottathara and Anakkatty
Other bank
South Indian Bank, Agali

Source: AHADS, 2001

Table 3.21
Major Events in Attappady since the 15th Century

Year	Major events
15 th C.	Mudugas immigration into Attappady
End of 16 th C.	Immigration of Irular
Early 20 th C.	Survey of Tract land for plantation
1930s	Started the immigration of settlers
1937	Madras Government in Tamil Medium
1938	Primary school started in Varagampady Sholayoor Panchayath-Tamil Medium
1940	Flow of immigration of settlers
1948	First Post Office in Attappady at Varagampathy-Scholayoor and Varagampady
1950	Clear-felling the tracts surrounding Vechapathy, Gonjiyoor and Varagampady
1951	Tribal population 90.27% of total population 11.300
Till 1956	Part of old Malabar district
1956	With the re-organisation, Attappady was added to Kerala State
1956	Attappady came under the Community Development Block of Mannarkkad
1956	Mobile Health unit started
1959	Mannarkkad-Chinnathadagam Road reached till Kottathara
1960	Bus service started from Mannarkkad to Agali
1960	Sholayoor Tribal School started
1960	Education Department took up the Educational Institution from Harijan Welfare Department
1961	Population in Attappady only 2146, tribes folk 60.44%
1962	Mannarkkad-Agali Road extended to Anakkatty
1963	Official inauguration of the Tribal Block
1963	Agali Government Hospital and Traveller's Bungalow
1965	Milk co-operative Society started in Kottathara
1968	Attappady was divided into 3 panchayath-Agali, Pudhur and Sholayoor
1969	Bus service till Anakkatty
1970	Land Reform Law
1970	Land came under the State Government

Table 3.21 (Contd.)

Year	Major events
1974	Sholayoor farmer's Co-operative society
1975	Tribal Land Bill Tribal Block declared as ITDP (Integrated Tribal Development Project)
1975	Varagampany-Kulkoor Road became feasible for transportation
1977	Government order to have an Advisory Committee to monitor, the functioning of the Project Authorities
1977	Forest Privatisation by the State. Tribes folk lost the right to collect and sell the forest product.
1979	ICDS programmes-started <i>Arganvadis</i> in Attappady.
1986	Tribal Land Restriction Act Bill came into force but not implemented.
1987	Bus service started in Sholayoor
1991	Population in Attappady: 89,434. Tribe folk, 27.03%
1993 Oct.	High court judgment to return the tribal land to the tribes folk
1996	Restriction on transfer of lands and restoration of Alienated Lands Amendment Bill passed by the Assembly
1999	Amendment Bill, 1999
2000	Giving Pattayams to few tribe folk away from their hamlets by the Chief Minister.
2001	Started the Plan Structure Evaluation of AHADS
2002	Implemented agenda for programmes
2003	A unique model is created
2004	Started the workings of AHADS
2005	Prime minister Inaugurated the Hamlet programme
2006	Restructuring of AHADS

Source: Development Report, 2001.

3.13. Tribes Folk of Attappady: A Brief Account

All the three major tribal communities in the area, namely, Irulas, Mudugas, and Kurumbas, belong to the broad group of Dravidians. Among them, Kurumbas were less exposed to, and have suffered less from the intrusion 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 per the 1981 census there were 20659 tribe's folk in Attappady, spread over 140 hamlets. By 1995 there were 168 Oorus constituting 24228 tribes folk. As of now there are 187 hamlets in the region (Survey Report, AHADS, Hamlet Survey, 2003).

Tribal hamlets of Attappady are found in all the three panchayaths, namely, Agali, Pudhur, and Sholayoor. Irula hamlets dominate in all the three panchayaths. Kurumbas reside only in Pudhur and Sholayoor is an exclusively Irula Panchayath. Numerically, Irulas form the largest tribal community (82.25 per cent) followed by Mudugas (12.53 per cent), and Kurumbas (5.22 per cent). The annual compound growth rate of Kurumbas during the period 1961 to 1981 was 2.44 per cent as against 1.61 per cent in the case of Mudugas, and 2.41 per cent in the case of Irulas.

3.13.1. Irulas

The Irulas (Irulans or Irulars), the numerically dominant tribe of Attappady, derive their name from their pitch-black complexion. Irulas are of Tamil origin and formerly inhabitants of Coimbatore District. It is probable that the Irulas of Attappady are the descendants of persons who had migrated from Coimbatore to Attappady during a period when Coimbatore and neighbouring places experienced acute water scarcity. The history of their mass immigration to Attappady dates back to the end of the 16th century or the beginning of the 17th century. There are at present 104 Irula hamlets in Attappady. Irulas are of medium height, long armed and have curly hair, prominent cheek-bones and narrow noses. They speak a mixture of Malayalam, Kannada and Tamil.

Originally they practiced shifting cultivation. As a consequence of the widespread encroachment of Attappady by mainland settlers Irulas have taken to settled-agriculture and plough cultivation. They used to cultivate millets such as makka cholam, ragi or French millet and chama, pulses (like thuvara or red gram) and oilseeds (like groundnut and castor seed). As of now, they have added to their cropping pattern almost all the crops cultivated by Tamil and Malayali settlers.

The traditional Irula houses are made up of bamboo, mud, and grass and are built in a row in close proximity to one another. In recent years, the Integrated Tribal Development Project (ITDP) in certain Irula hamlets constructed a number of tiled and concrete houses. Irulas fight for these Government-sponsored houses in spite of the fact that their sleeping under these asbestos or tile roofed houses is for them like lying below amber bed. As sleeping within the house is intolerable during summer, Irulas in hamlets sleep at night outside these concrete or asbestos or tile roof.

3.13.2. Mudugas

Mudugas are the second largest tribal community in Attappady. It is believed that the Mudugas were the original inhabitants of Coimbatore and later moved westward due to persecution and exploitation by more dominant communities. The name Mudugas is said to have originated from the primitive custom of carrying children on their Muthuku (back) which is not the practice of other tribes in the valley. Mudugas live in remote forest settlements of the Attappady tribal area. They always prefer to remain as far removed as possible from the 'civilized' people from the plain. Mudugas have no knowledge about their origin and early history, though they are believed to be Tamilians from Coimbatore District, who are lured by the possibility of agricultural activities in the fertile soils of Attappady. They have legends connected with their origin in common with those of the Kurumbas. There is a belief that they had once been Kurumbas and that they broke away from that tribal group to form a separate community. Another belief is that it was the Mudugas who had established the township at Coimbatore and that they later moved westward for fear of persecution and exploitation by more dominant communities there. Mudugas are of medium height, curly hair, and thick lips and have most of the features of primitive tribes. Their complexion varies from light to dark shades of brown. They converse in a dialect of Tamil interspersed with many Tulu words and phrases, and have poor speaking knowledge of Malayalam.

Like Irulas, Mudugas also practice settled agriculture retaining several features of shifting cultivation. Their principal agricultural products are chama, ragi, rice, red gram, black gram, horse gram, cotton, groundnut, ginger, sweet

potato, and tapioca. Mudugas lost most of their land by downright encroachment or other devious mechanization by Malayali settlers. The growing contact between Mudugas and Malayali settlers has led to acculturation of this tribe, which often ends up in marital alliances with the latter and erosion of tribal practices and culture.

3.13.3. Kurumbas

The Kurumbas are considered to be the earliest tribal inhabitants of Attappady. When the Badagas started colonizing the Nilgiris, these people moved down to the Attappady valley. They are the smallest among the three tribal groups of Attappady. Kurumbas also claim that they are the descendants of people who had fled from Mysore during a period of war and hid in the forests. There are 16 Kurumba hamlets in Attappady, of which nine are in the reserved forests and the rest in the vested forests and are located mostly in the valley of river Bhavani and its tributary. Kurumbas are short, snub-nosed people. However, all these people have their settlements inside the forest, and until recently they had hardly any contact with the outside world, not even with the Irulas and Mudugas. The language spoken by them is a mixture of Kannada, Malayalam and Tamil. They maintain a community life by sharing labour and food with others in the hamlet as and when required. Moopan is the man who decides about the common issues affecting the hamlet. He is the connecting link between the outside world and the families, especially between the Government and tribal community. Their houses are built, in general, in rows, with grass, bamboo and mud. The Kurumba term for house is Aalai or Salai.

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. Now they have to take permission from the officials of the Forest Department who allot to them patches of land regardless of their choice. The Forest Department allots land (Kothukadu) in the name of Ooru Moopan (Chieftain), it is he who demarcates plots of each household in the hamlet. He is assisted by a Bhandari (Treasurer), a Kuruthalai (Junior Headman), and a Mannukkaran (a soil man or an agricultural expert). With the switch-over to settled

agriculture, the role of Mannukkaran has dwindled into a ritualistic one. Yet, it is still possible to identify the Mannukkaran in most of the hamlets. Kurumbas cultivate a variety of crops such as chama, thuvava, jower, black gram, and ragi.

3.13.4. Community Wise Hamlet Details

Table 3.23 shows the details of Community wise hamlet details.

Table 3.23
Community wise hamlet details

Total hamlets	187
Irula hamlets	144
Muduga hamlets	24
Kurumba hamlets	19
Families	7,328
Irula families	6,281(86%)
Muduga families	649 (9%)
Kurumba families	398 (5%)
Total tribal population	28,978
Male population	14,694 (51%)
Female population	14,284 (49%)
Irula population	24,370 (84%)
Male Irula population	12,390(51%)
Female Irula population	11,980 (49%)
Muduga population	2,746(9%)
Male Muduga population	1,345(49%)
Female Muduga population	1,401 (51%)
Kurumba population	1,862 (6%)
Male Kurumba population	959 (52%)
Female Kurumba population	903 (48%)

Source: AHADS, 2001

There are 187 hamlets, of which 144 are Irula hamlets, 24, Muduga hamlets and the rest 19, Kurumba hamlets. There are about 7,328 families, of which 6,281 (86%) are Irula families, 649 (9%), Muduga families and 398 (5%) Kurumba families. The total tribal population is 28,978, of which 14,694 (51%) are males and 14,284 (49%) are females. Irula population is 24,370 (84%), of which 12,390(51%) is males and 11,980 (49 are females. Total Muduga population is 2,746 (9%), Male Muduga population is 1,345 (49%), and female Muduga population is 1,401 (51%). Total Kurumba population is 1,862 (6%), of which Male Kurumba population are 959 (52%), female Kurumba population is 903(48%).

3.13.5. Non –Tribals

Most of the early settlers from Tamil Nadu (mainly from Coimbatore District which is the adjoining district of Palakkad) who migrated to eastern Attappady in 1920, established contact with the Irulas. These people were interested in the agricultural crops grown by Irulas and collected the produce. Although, they settled down for agriculture by clearing the forests, it did not affect the Kurumbas and Mudugas who occupied interior Attappady. The unique ecosystem of Attappady began to disintegrating during the late 30s, when a large number of inhabitants migrated from the plains of Kerala to the Attappady valley, mainly to exploit forest wealth and for taking up agriculture. The early migrants settled in the high rainfall areas such as Karara, Chittur and Sholayoor. Their original cultivation practices determined the choice of localities for settlement. Of the Malayali migrants, more than 50 per cent were from central Travancore area and about 30 per cent from the plains of Palakkad.

Disposing their possessions at home, the migrants trekked to Attappady in search of land at cheap rates. Fighting against the difficulties of terrain, inhospitable climate and wild animals, they took to agriculture in the land either bought or encroached. They adopted the crops and cultivation practices with which they were familiar and more or less passed on their practices in the new settlements. Ultimately, this sudden influx of people into the valley has caused a major impact on the life of the tribal people and on the ecology of Attappady

3.14. Development History of Attappady

A study commissioned by Attappady Hill Area Development Society (AHADS) and Integrated Rural Technology Centre (IRTC), reviewed the development programmes carried out in the past in the Attappady region. The study came to the conclusion that between 1987 and 1997 a minimum of Rs. 44 crores had been spent on various development activities in the Attappady block. Agriculture development programmes had provided various concessions and assistance. But very little of these suited to climate conditions of Attappady were promoted, many others which were most suitable to the area (e.g, fruit trees, agro-forestry species etc.) had been completely ignored. Several minor irrigation projects were found to be performing poorly, providing only 5-10 per cent of the projected benefits. The only Major Irrigation projects proposed for benefiting Attappady would be the Attappady Valley Irrigation Project could never prove its usefulness. Schemes for dairy development or livestock development had not only failed to raise income of the people; they even turned out to be extremely harmful to the ecology by encouraging uncontrolled grazing. The activities of the fisheries department led to much wasteful spending. Despite being carried out on an extensive scale, soil conservation measures implemented in Attappady in the past had failed generally for want of proper and timely maintenance and lack of people's participation. Similar had been the fate of drinking water schemes.

As a result of the virtual failure of previous development programmes and the resultant poor conditions of existence of the people, apathy and callousness towards developmental projects in general have grown among the population, especially the youth. The tribal households of Attappady, which were self-reliant until some decades back, now depend heavily on the settler economy and Governmental projects for sheer survival.

3.15. Problems of Unwed Mothers in Attappady

It has been noticed that the figure of unwed mothers has alarmingly increased in Attappady. More than 200 unwed mothers are found in different oorus in Attappady, having one or two children for each. Tribal women are still being exploited in Attappady. They are not having any source of living and totally

neglected by their own family and also facing a lot of ill treatment from various corners. At present, there are about 73 complaints from unwed mothers lodged before the Government (Mariamma J Kalathil, (2002). Investigations on this matter are being carried out and this led to the withdrawal of the complaints in most of the cases. Four complaints, which were lodged two years back, the enquiry has just started by the Integrated Tribal Development Project (ITDP). Most of the cases were withdrawn during investigation itself. Delay in legal protection, social and financial backwardness leading this category as most unwanted element. Many development societies and agencies have taken steps for eliminating this injustice from the society. Social and financial backwardness made this category the most unwanted element in the society.

Table 3.24

General Description of the Attappady

Number of Joint Forest Management Committees (AHADS)	27
Total area of Attappady	745 sq km
Number of Gram Panchayath	3
Number of Villages	6
Total Number of Houses (2001)	16724
Total Population (2001)	67672
Tribal Population (2001)	28711
Density of Population (2001)	90
Number of Tribal Hamlets	189
Categories of Tribes	Irula, Muduga, Kurumba
Number of Developmental Units (AHADS)	15
Number of Micro Water Sheds (AHADS)	146
Number of User's Associations (AHADS)	93
Number of Ooru Vikasana Samitees (AHADS)	160

Source: Development Repots of AHADS, 2001.

Chapter 4

*Life cycle Structure of Tribals in
Attappady a Historical Sketch of
Attappady Valley*

LIFE CYCLE STRUCTURE OF TRIBALS IN ATTAPPADY A HISTORICAL SKETCH OF ATTAPPADY VALLEY

Till the beginning of the second quarter of the 20th century, Attappady was inhabited almost exclusively by hill tribes. Several factors are responsible for the non-interventions in this area by outsiders. The most important has been the availability of adequate cultivable lands in the low and midlands around. Hence the area remained little exploited by outsiders and hence land degradation was marginal. Almost all areas in this virgin region were, before the intervention began, under thick forests and inhabited by tribes folk engaged in slash-and-burn cultivation. As the area was under thick forest and infested with-sucking leeches and wild animals, accessibility to this area became difficult for early settlers.

There are many restrictions for the enumerators to obtain data regarding tribals. Main reason is lack of postal and communication facilities. Hence, limited accessibility resulted in false census estimates. Until early 1950s, the agents of Zamorins of Kozhikode used to be the main source of information. These Chieftains did not have any dependable source of detailed information regarding the size of families of tribe's folk and their dependants. A monograph of the 1961 census series makes the following observation about the Kurumbas of Attappady: "Inhabiting as they do, in the interior dense forest regions accessibility to them is ordinarily difficult" and notes that they had, therefore, been left out from the detailed ethnographic study (Kunhaman, 1983). Inaccessibility to the forest areas owing to the lack of infrastructure and attack of wild animals and availability of lands in the plain areas discouraged in-migrants to settle in Attappady. However, growth of population and rising demand for land for cultivation pushed succeeding generations of in-migrants into this area. Government policies also were helpful to settlers to make this area their destination.

Attappady was the Jenmom property of the Zamorine of Calicut in the early 18th century. The Zamorin entrusted the administration of this area to three Nair Chieftains, Mannarkad Moopil Nair, Palat Krishna Menon, and Eralpad Raja (Mathur, 1977). Moopil Nair got the larger portion of this area by pleasing the

Zamorin. Once, the Zamorin happened to stay at Moopil Nair's house. Being pleased with Nairs hospitality, along with Moopil Sthanam (the title of Mooppil), a vast area of land was given to him. In this way Moopil Nair got large areas of land in Mannarkad, including forest areas of Attappady. Nair was given an area approximately to the distance that a horse can cover in a day. However, Moopil Nair and other Jenmis were not much interested in cultivation of the leech-infested forest areas of Attappady. Their interest in this area remained to capturing elephants from the dense forests for use in temple festivals. Capturing of an elephant from Attappady was considered prestigious for the family and it was great news on those days. The chieftains had been given the right to collect land revenue at rates ranging from Rs 0.50 to Rs 1.25 per acre of land and forest produce by way of land revenue from Irulas, Mudugas, and Kurumbas. The tribe's folk had become tenants of these Jenmis, the chieftains.

The tribe's folk enjoyed the right to cultivate as much area as one was able to manage at the prescribed rates of land revenue. In practice, however, they were heavily exploited by the Kariasthans (Managers) of the Jenmis. In the meantime the Jenmis managed to get Jenmom Freehold Property Rights of these lands from the Zamorin. These three Chieftains were the oldest Jenmis of the Attappady Valley. As these landlords owned large tracts of land in the plains below, Attappady valley remained virtually intact and untouched by outsiders for a long time. The tribe's folk cultivated these areas in their conventional ways such as shifting cultivation, hunting, and collection of forest produce (Kunhaman, 1981). Jenmom right gave the landlords the inheritable right to collect usufructs and rent. These landlords also had the power to give their land on lease. Moopil Nair alone held 70 percent of the Attappady land. In the first half of the 20th century, a few new landlords were given lease rights on the western part of Agali, about 6000 acres were given on lease to one Kunhammed Sahib of Mannarkad.

Facilities like police station or post office were absent in Attappady till the close of the 19th century. However, a full contingent of village officers were appointed, and beat constables began entering the valley periodically and got the signature of the Adhikari (Village Officer) in their beat books. During the early decades of the 20th century, timber was the main product in the valley. Of the total

area, 21 hills in full and another hill in part belonged to the Government, the rest of the area was under dispute among the three Jenmis already referred to. The dispute led to frequent disturbances, which culminated in actual bloodshed in 1901. A solution was finally reached around 1908 by the Divisional Officer under Section 145 of the Criminal Procedure Code. Accordingly 44 hills and part of five others were awarded to Moopil Nair, 16 hills and parts of six others to the Eralpad Raja, 10 hills to P.K. Menon, and two hills to another Jenmi. Even after this division most of the areas remained undisturbed by outsiders due to easy availability of land in the plains of Mannarkad and nearby areas.(Kunhaman, 1981).

4.1 Settlement and demographic change

It is not clear from the available literatures who were the earliest intruders into this area. In the opinion of some old settlers that the earliest were the Tamil-speaking Gowdans who came to Attappady in the beginning of the 20th century mainly for buying forest produce. The early Gowndan settlers started cultivation in the land, which they managed to obtain by bribing the Kariasthans (Managers) of Jenmis. Gradually, they encroached into more lands in their vicinity. As there was shortage of local labour, these settlers brought workers from their native places under promise of higher wages (Mathur, 1975). A massive flow of people began during the 1950s in the eastern side of Attappady, mainly people from Thadakam and other parts of Coimbatore in Tamil Nadu.

Before the colonisation trend and the massive move of people began from south and central regions of Kerala to Malabar and Attappady, relatives and neighbours of the Jenmis used to visit Attappady for various purposes. Their intention was collection of forest produce from the tribe's folk. Malayalis from the plain came to this area, in the beginning for jobs in the plantations started by the Britishers and work in the forest land leased by landlords for timber extraction. However, many of these original in-migrants did not settle down in Attappady because of the difficult terrain. After a while they left Attappady leaving their possessions to new in-migrants.

After independence, rapid changes occurred in settlement patterns. The area was opened for logging and settlement through construction of all weather roads in

the region. The influential Communist parties of Kerala agitated for land reform under the slogan “land to the tiller”. However, this agrarian reform did not confer land rights on the Adivasis, because the Jenmis sold much of their lands to settlers from the plain land, especially Malayalis from Travancore and Tamilians from Coimbatore areas. After 1956, Malayalis migrated to Attappady mainly for work in timber-felling and extraction of forest produce. In-migrant population continued to increase till the end of the 1970s.

If the peak period of Malabar migration was 1951-60 (Tharakan, 1976; Joseph, 1988), the inflow of people to Attappady reached its pinnacle during 1961-1970. It continued its pace till 1980 and thereafter declined sharply. Pioneers of the in-migrants to Attappady reached the area mainly during the period 1951-60. The inflow reached its zenith during 1961-70, declined in the next decade and became insignificant after the 1980s (Sanathanan, 2000).

The whole demographic structure of Attappady has changed after the 1950s mainly due to uncontrolled influx of population. As a consequence, by the end of the 1960s demographic structure has turned to be unfavourable to tribals. During the 1940s, the tribal population of Attappady is estimated to be around 10,000 and the non-tribal population just a few hundred. According to the 1951 census, the proportion of non-tribal population to total population was just 9.68 per cent. The proportion rose to 67 percent in 1981 and 72 in 1991. And in 2001 it increased to 89 per cent. During 1951-61 the population in the area increased by 89 per cent, even though the increase of tribal population was only by 27 per cent. During this period the increase of settler population was at the exorbitant rate of 67 per cent. The next decade (1961 -7 1) also presents a similar picture with an increase of total population by 88 per cent and tribal population only by 17 per cent. The growth of non-tribal population was by 21 percent. Thus, the original inhabitants of the area were marginalised. The tribals have been forced to adopt ways of life of the settlers which led to the ruin of their rich cultural heritage and freedom of living.

In the present context of tribal studies the need for study about the life-cycle structure of tribals in the study area is an essential factor. The tribe's folk of Attappady have been classified in to three:

1. Irulas
2. Mudugas
3. Kurumbas

4.2 Irulas of Attappady

4.2.1 General characteristics

Irulas is a Dravidian tribe spread over the three states of Tamil Nadu, Karnataka, and Kerala. They are also known as Ellurva, Iruliya, Kasovaurali, Radu, Pujari and Velliga. In Attappady a sub group known as Ettakkada Irulas is also found. The total Irula population in Attappady was nearly 24,370 in 2001. Their dialect is Irula. They communicate with others in Tamil, Telugu and Malayalam. In Kerala they use Malayalam script. Irulas in Kerala are the inhabitants of Palakkad district. They are seen at Atpothippara, Mayamudi, Palkampamdy, Kunapalam of Neelliyampathy hills and Pudhur, Agali and Sholayoor panchayath of Attappady Block (Luiz, A.A.D.1962)

The term Irula is derived from the word “Irul” meaning darkness. They are rigid in their custom and manners. Yet, socio-economic pressure has compelled the Irulas to make structural change in their social life. Among the Irulas there are 11 clans (kulams), namely, Arumoopan, Samar, Karatty, Kurnagam, Vellaka, Devana, Kuppli, Kupper, Pungar, Perathara and Uppli. A black bead necklace (keera pasi) is the marriage symbol for them. There are a number of legends existing among the Irulas about their origin. Primitive Irulas were food gatherers and hunters. Later they started living in chalas (huts) about six in a row, adjoining one another.

4.2.2 Life cycle structure of Irulas of Attappady

Marriage

Three kinds of marriages are in vogue among these tribes, viz, marriages by elopement, marriages by services, and arranged marriages. The girls are married after attaining puberty. The age of marriage among girls is between 18 and 20. Monogamy is the marital norm. Paying bride price is common. In case of arranged marriages among Irulas, parents of the boy visit the bride’s home with two iron rods. The tribal priest plays a significant role. The marriage rituals are performed in

bride's home. Irula pays a bride price [periya panam] during the marriage. Traditionally it was Rs.102.25. They are very particular that marriages are exogamous and generally after puberty. Their ancient folksongs, customs and dances indicate that marriages by capture and elopement were common. Bride price is paid to the bride's father, and if she is fatherless, to the senior brother to be shared equally by all brothers.

The Thali (marriage badge) is placed on the neck of the bride by the headman or an elder and the bridegroom does the tying. The thali tying ceremony takes place in a small pandhal erected for the purpose. In the past, bridegroom and the bride were made to stand a certain distance from each other. The bridegroom receives the thali from an elder member of the village and hands it over to the women of his family.

Divorce and desertion are common, and those who have parted are free to re-marry whomsoever they like, but the ceremony has to be in the quit form. At the instances of divorce the infant children remain with mother, and the adults are taken over by the father. When the wife has taken initiative for the divorce the bride price has to be returned. It is not necessary for a widow to remove the thali at the death of her husband, but she has to do so when she remarries. A widow cannot be taken as wife by her brother-in law. The marriages are usually a matter of personal choice. Among the primitive tribes the mother of the boy takes the initiatives to find a bride. She sets out on a Monday, visits the home of prospective bride, enjoys hospitality, and escorts the girl to her home. There she meets the boy and remains there for couple of days. If she is found unsuitable she is sent back and similar trails are conducted.

Death

When an Irula man or woman dies, the news is sent through an Irula male or a Kurumba to close relatives who immediately arrive on the scene to express their condolence. The burial of the deceased may even be delayed for two or three days to enable relatives living at distant places to attend the burial. At the instance of death a hut is constructed immediately where the corpse is laid, and singing and

dancing continues till the funeral process. The funeral process is completed at the Soul of the diseased enters the shadow land.

The burial consists of seven sticks tied cross wise on two long sticks. The son or any other person acting as chief officiator has to shave his head. The headman, the senior nephew and son have to participate in the funeral ceremonies. Among some group the corpse is propped up in a sitting position with the legs crossed, and lowered in to circular grave. The widow places betel leaves in the mouth of the corpse. Some primitive groups bury a few grains of rice and a lamp with the dead, and the lamp. The eldest son performs the funeral rites, the Kurumba who assists during the funeral rites is given a vessel used by the deceased. Three days after the burial the second rite is performed. During this ceremony the son of the deceased shaves off his hair. The Irulas observe death pollution for six months to one year. After this, they conduct a purificatoy ceremony.

Birth

Polygamy is a common practice in their society. After childbirth a woman is considered unclean for three months. The newborn is named on the seventh day. Boring the ears of both sexes can be at any time after six months. Very often the nickname indicating the colour, habit, nature or deformity of the body is used to describe a person. During the time of her delivery usually a midwife called "pettichi" will take charge of that custom. Among the Irulas the delivery of the child takes place at bride's home. Birth pollution is observed for seven days. After delivery if the child is a boy they will tie the cradle on the 5th day. If the child is a girl they will tie the cradle on the 6th day.

Puberty

When a girl attains puberty, she has to reside in a special kind of "chala". Pollution lasts for seven days. No men folk can enter the chala, only her friends and women folk can visit her. Special dresses and plates are used. On the 8th day the girl is led to the river by her sister-in law and her friends. They will use the leaves of the "Kalle tree" as soap and oil for bathing. Before taking bath, the 'chala' where she resided for seven days of puberty pollution and the dress and all materials used by her will be burnt. After bathing the girl has to wear new dresses

and ornaments. Before completing one month a feast will be arranged in her home. The feast will be accompanied by dance and music.

Settlement pattern

Ooru or hamlet is a cluster generally of 25-150 house holds. Each ooru has a headman known as mooppan. His position is hereditary. His words are final in all social, economic, political, cultural and religious matters of hamlet. He is the connecting link between Government and tribal folk. In the present scenario mooppan is losing his position, power and influence.

Mooppan is assisted by the Vendari and Kuruthala. Vendari executes the decision of the ooru committee. His duty is to investigate in to the complaints of the tribals and to find out whether they are true or false. Kuruthala is the messenger. Kuruthala has a ministerial position and vandari (bhandari) may be compared to the Treasurer of the modern times. Mannukkaran is responsible for the agricultural process of the ooru. It is only after his performance of rituals and cultivation in his own land that others can start cultivating their land. He has good knowledge about the weather, soil, fertility and sustainability and to decide the appropriate time to begin cultivation.

Dress and ornaments

Tribal women use ordinary bangles and necklaces. Men wear a short piece of cloth around the waist and a towel on their shoulders. Women wear a piece of cloth around the waist in combination with the modern blouse.

Political structure

There used to be the hereditary Mannukkaran (knower of the soil). He was somewhat of a sacrosanct functionary in addition to being the agrarian specialist. He has lost both these roles with modernisation of agricultural practices and the sanskritisation of forms of worship. For the former the development agencies, while for the latter, a new institution of pujari has emerged. The village messenger (kuruthale), and the village accountant (bandari or vandari) have now very few functions, but the offices being hereditary, the bearers still continue to be identified as such.

Many deal with matters pertaining to youth (thalaveeni for female and thalaveenan for male) including the solution for youth problems. All matters of the ooru are decided by ooru Panchayath. All the above-mentioned persons and all men and women in the ooru are the members of the ooru Panchayath. Tribal women actively participate in the ooru Panchayath.

Economic structure

For generations the tribes used to collect minor forest produce from the dense forest, which provided them with food, medicine, and material for shelter. Minor forest produce (MFP) provided them also with income during the non-agricultural season. Since the tribe's folk were able to get enough food grains from agriculture and enrich their diet with roots, nuts, honey, and fruits from the forest, they had little need to buy commodities from outside market.

Agriculture

Irulas are persevering and clever agriculturists. A few are shifting cultivators. What is cultivated depends on the soil and environment. Paddy, ragi, dhal, plantains, chillies and turmeric are grown in large quantities.

Traditional tribe's folk practised slash-and-burn and shifting cultivation. Ash provided the manure for cultivation. They practised shifting cultivation on the forested uplands (kottikadu, literally meaning land to be cut and cleared), dry land farming with ploughing (erkadu, meaning ploughed land), and wet land, mainly paddy cultivation (gedde). Erkadu technology was probably an acculturation, cattle and ploughmen were hired from among the settlers. The main crops grown under this system were maize, ground nut and chillies. Rainwater was the chief source of irrigation. Since a great deal of the land under cultivation was on the hills or uneven surfaces, ploughing using animal was seldom practiced, soil was raked by human hands.

There were no separate plots for agriculture. They cultivated and made use of whatever parts of the forest they chose to cultivate. On the sowing day all the people in the village clean their houses and take bath. Mannukaran sleeps in the "kula daiva veedu" (room or house set apart for the dwelling of God) on that night.

Early morning a man from Karattikulam makes ragi and takes it to the Mannukkaran who goes to sow seeds with prayer. Nobody is allowed to see Mannookkaran sowing the seeds. Both men and women take an active part in agricultural operation, hunting, rearing and vending goats and poultry. Many have their own permanent cultivation on leasehold or Government lands. They also collect bamboo, firewood and forest produce and sell or exchange these for cereals and essentials. Their implements consist of chopper, wooden plough, spade and axe. When there is acute shortage of cereals, they live on roots, herbs and bamboo rice. They have now ceased to be nomadic. Settled life has definitely reduced crime, and improved their economy.

Minor forest produce collection

The deciduous forests were rich in various items like *Accacia intsia* and myroboams, which they used to collect. The whole family would move out during the collection season living off the small animals they could trap. They were not averse to eating rats in times of distress even white ants (termites) would be attracted by fires, collected and roasted, and eaten. They were expert collectors of honey from the hives of ferocious rock bees. The strongest would tie strong climbers to a tree at the top of the rock and descend by it down the face of the rock usually at night. They would drive the bees away with torches and collect the combs in hollow bamboos tied to their back. They would then be hauled back to the top before the enraged bees could get him.

Religious beliefs and practices

Natural forces, hill gods, and ancestors are the gods of Irulas. They will worship animals, trees, and stones also. In addition to these they will also worship Mariamma, Bhathrakali in every hamlet. At home they worship the God which is named as "Pasath" god. For the satisfaction of gods they have to conduct festivals every year. They will call these festival as "paruva Kondadukathe" they will sacrifice goats, hens etc for the satisfaction of God. A grand feast is also arranged during every festival.

Another kind of belief of Irulas is the "Malleswaran". Here Siva is the principal God. This will last for seven days. Malleswaran Mudi is at a height of

6000 ft from the sea level. Irulas have strong belief in Siva. At the festival on Sivarathri, three kinds of tribals of Attappady assemble on the top of Malleswran Mudi.

Inheritance of property and customary laws

The Irula society is patrilineal. Whatever an Irula possesses is equally distributed among male heirs, i.e, son. Generally the question of division of property occurs during the lifetime of father, then an equal share would be given to his heir or heirs and father would retain one share. The youngest son who would look after the parents and would get the parent's property after the death of the father. The women are barred from taking any share from their father's property. Contrary to this if one has only one female child then he can keep his son-in-law after the marriage of his daughter.

4.3 Mudugas

Mudugas live in remote forest settlements of the Attappady tribal area. They do not mind living within a short distance from Kurumbas and Irulas. But they always prefer to be as far away as possible from the civilized people of the plains. The Muduga settlements are found in forest areas near the river Bhavani that gives them drinking water. Regarding the history of the Mudugas, the Census Report states that Mudugas are believed to be the earliest immigrants of this region. They are of Tamil origin and are believed to be immigrants from Coimbatore district. The purpose of their immigration was an ambitious plan to extensive agricultural activities in the fertile virgin soil of Attappady forests. The history of their immigration dates back to 15th Century or even prior to that. The religion of this tribe is akin to Hinduism. They were, during the past, subjects of the Vijayanagar Hindu Empire. The Mudugas are worshippers of Lord Siva. Saivism (Worship of Lord Siva) is considered to be older than Vaishnavism (worship of Lord Vishnu). As the Mudugas are still worshippers of Lord Siva and are oblivious to any influence of Vaishnavism, it can be reasonably presumed that they had emigrated from the plains even prior to the propagation of Vaishnavism.

4.3.1 General Characteristics

As a tribe the Mudugas are shy and do not like the company of the non-tribal people of the plains. They like to have as little contact as possible with the outside world and do not like going to the adjacent town for getting their requirements. They buy their requirements of clothes and ornaments from the nearest weekly market and the daily requirements such as oil jaggery, match box etc, from the nearest shop.

The Mudugas consider themselves superior to the tribes like Kurumbas and Irulas, though they have marriage relationship with the Kurumbas. Even though they have contact with the Irulas they won't allow them to enter into the huts and won't eat in the huts of Irulas when they take part in the ceremonies, such as marriage etc. There are few instances of inter-tribal marriage relationships with Kurumbas. Only Kurumba girls are married to the Muduga males and no instance of a Kurumba marrying a Muduga girl. Mudugas marry Kurumba girls, and also as a rule they are not prevented from marrying Kurumba girls.

The Mudugas are very superstitious. If any unnatural death takes place they attribute it to evil forces. They believe in good and bad omens. They have their own auspicious days and time. Mondays are considered to be good days for ceremonial functions. Women of this community are industrious and they work as labourers in the field, collect tubers and other forest produces, weave mats and baskets. The Mudugas receive guests who visit their settlements and extend whatever help they can. They invite the non-tribal people of that locality known to them for their festivals and ceremonies. They help each other in agricultural operations, hunting, fishing etc. The Mudugas are generally black complexioned though fairer than the Irulas. They have average height and stout body. Generally they are snub nosed with somewhat pointed chin.

The Mudugas have not changed much by contact with the civilized people or by any of the welfare schemes, which the Government has implemented for the development of the tribes. They have a limited culture of their own which they maintain in that isolation. In the matter of education their condition is miserable. Generally the Mudugas are generous and hospitable, peace loving and God fearing.

Numerically Mudugas are the second largest tribal community in the Attappady area. According to the 1961 Census their population was 1881 which increased to 2746 in 2001. There are 18 Muduga hamlets in Attappady. They are, Chudakki, Thazhachundakki, Veerannuru, Karuvara, Ommale, Kallamale, Kottamale, Chitturu Chandakulam, Koravanpady, Ummathupadiga, Molakamby, Thekkumpanna, Abbannuru, Kottiyuru, Pettikkallu, Kakkuppady, and Mukkali.

4.3.2 Life cycle structure of Mudugas

Marriage

The first step in the process of marriage among the Mudugas is fixation of date. Usually the bridegroom's party takes the initiative and try to get the consent of the bride's party. Marriages are conducted only after the girls attain puberty. The bridegroom will be either her cousin (maternal uncle's son or paternal aunt's son) or any other suitable young man of the community.

As the first step the parent of the bridegroom will find out a girl and later they will inform this to their son. If the son is willing they will report this to the headman and request for his consent. On a Monday a group consisting of six people (headman, kurutale and his wife, vandari and his wife and the father of the bridegroom) will go to the girl's hut. While going to the girl's hut the bridegroom's father takes with him tobacco, arecanut, betel nut and an amount of Rs. 1.50. After receiving the guests the girl's father will enquire about the purpose of their visit. The 'kurutale' will reply that they visit there for a girl, and then the girl will be brought before them and the 'kurutale' will ask her whether she likes the proposed marriage or not. If she is willing the bridegroom's father hands over the tobacco, aracanut, betel nut and the Rs. 1.50 to the 'kurutale'. After having a feast from the girl's hut all of them return to their own huts.

On the following day a group of six people from the bride's side (headman, 'kurutale' and his wife, 'vandari, and his wife, and bride's father) visits the bridegroom's hut to see the bridegroom and fix the marriage. The day and time of the marriage will be fixed in the presence of the headman. After that they will be feasted by the bridegroom's parents and after the feast they return to their huts.

Usually marriages are conducted at the bridegroom's residence on Monday morning. In the evening of the previous Sunday the bride's party with the bride will come to the bridegroom's hut. In connection with the marriage there will be feast on Sunday and Monday at the expense of the bridegroom's party. Till Monday morning the bride will be kept in the hut of the headman of 'kurutale' or 'vandari' under the custody of their wives.

The marriage ceremonies take place in a specially decorated 'pandhal' built in front of the bridegroom's hut. The bridegroom's mother adorns the bride with ornaments and new clothes and lead her to the 'pandhal' where the bridegroom is being seated on a mat, and seats her on the left side of the bridegroom. The important items of the marriage are to join the hands of the fiancés and garlanding. While 'kurutale' holds the right hand of the bridegroom, his wife places the right palm of the bride on the right palm of the bridegroom. They have to sit in this pose for a few minutes while the friends and relatives assembled there place ornaments and money before them as marriage gifts. Next step is garlanding which the wives of 'kurutale' and 'vandari' will do. Firstly, the wife of 'vandari' receives a garland from the bride's parents and puts it on the neck of the bridegroom. Then the bridegroom's parents give a garland to the wife of 'kurutale' and she puts this to the neck of the bride. Tying of marriage badge (talikettu) and exchanging of garlands by the bride and bridegroom are not practiced by this tribe.

After these ceremonies the bride and the bridegroom will be seated face to face on a mat and plantain leaf is placed in front of them. Then boiled rice and curries are served on the leaf. Both of them take a handful of rice and at first the bridegroom tries to feed the bride. But she avoids his hand, which is full of rice and tries to feed him the rice, which is in her hand. This is repeated for some time. Then they start eating. After eating the food the bridegrooms takes water in a goblet and pour it in the hands of the bride. While she washes her hand he throws the goblet away. Then she takes another goblet of water and pours it in his hand. When he starts washing she also throws the goblet away. Later they take water in separate goblets and wash their hands. After these ceremonies food will be served to all the people present there.

When the feast is over the bride and the bridegroom are seated on a mat before their parents, headman and his assistants. The wife of the 'kurutale' sits on the right side of the bridegroom and the headman's wife on the left side of the bride. Other members are seated around them in a circle. It is in this function, the bride money is given to the bride's parents which varies from Rs. 100 to Rs. 150. The bridegroom's father gives the amount to the headman who gives it to the 'kurutale' and then the 'kurutale' gives it to the 'vandari'. Again the vandari gives this amount to the headman. By holding the amount in his hand the headman tells the bride's parents that they have taken the girl and if the marriage is divorced due to her misconduct, the amount will have to be refunded to them. Then he gives the amount to the bride and she hands over it to her father. From this amount Rs. 2.50 is given to the 'kurutale' and Rs. 1.25 to 'vandari'. A mat is spread before the headman and the members present there put small amounts on the mat as gifts. From that collection the headman takes Rs. 20 and the rest is divided among the members. After this all the people return to their huts except the bride who has to stay in the bridegroom's hut. There will be dancing and singing before the couple throughout the night and they are allowed to sleep together only on the 4th day of the marriage. In the evening of the next Sunday the bride and the bridegroom with his relatives (other than his father and mother) visit the bride's hut and return on Monday evening. They have to carry rice, milk and curd along with them while they visit the bride's hut.

Marriages by exchange, by service and by elopement are also rarely seen among this tribe.

Death

Any death is considered to be the concern of the entire settlement and full honours are given to the departed soul by beating drum and playing pipes. All members of the settlement including the headman should have to attend the death ceremonies. The corpse will be buried only on the 3rd day after death and till that time the members present there will sing and dance around the corpse, and only close relatives will mourn. Before burying the corpse they won't cook anything in the hut.

All the ceremonial functions connected with death are done under the overall supervision of the headman. The corpse is washed, dressed with new clothes and placed on a bed made of bamboo poles. Then coins are placed on the mouth and forehead of the corpse. The sons-in-law and the brother-in-law carry the corpse to the burial ground, and a rectangular pit to a depth of about five feet is dug. The eldest son throws three hand full of grains into the pit and then only the corpse is placed in the pit. The corpse is never placed flat in the pit, it is placed in a sitting pose by stretching the legs to the front. The head faces upwards and it is towards the south. From the cloth of the corpse three pieces are cut out by the son and placed one on the middle and the other two on both ends of the body. He throws three hand full of grains and three handful of soil on the corpse. Weapons and utensils used by the deceased person are also put in the pit and the members present cover the pit with soil there. All the things brought along with the corpse are abandoned there. Before returning from the spot the son of the deceased person cut out a piece of 'Darbha grass' and by hitting this on the tomb he spells the name of the dead person. After taking bath in the river he returns to the hut accompanied by other members, and he brings the piece of Darbha grass to the hut. Then two vessels, one containing water and the other containing coconut oil, is placed before the son. He dips the piece of Darbha grass in the oil and holds it over the water by enchanting the name of the deceased. This is repeated twice. When the two drops of oil in the water join together, they believe that the ancestors in the heaven accept the soul of the deceased person. If the first two drops do not join, they will repeat the process till it joins.

The members in the hut observe pollution for 40 days. Giving a feast to the members who took part in the death ceremonies dissipates the pollution. Generally Mudugas do not have any other ceremonies by which the dead are remembered.

Pregnancy and childbirth

Before completing three months of the first pregnancy of a girl the news should be reported to the headman by her father-in-law, and later the headman informs this to her parents. On an auspicious Monday of the third month the girl's parents visit her and give sweets, and on the next morning they take her to their

hut. Her husband and his parents also accompany her. The girl's parents have to arrange a feast for these people and after the feast the girl with her husband and parents return to their hut.

The birth of a child in a family especially the first delivery of a girl is usually an occasion for rejoicing. It is said that a system of using isolation shed (pollution hut) for delivery was prevalent among this tribe. But at present no pollution hut is being built, the delivery takes place in the living hut itself, i.e, on the 'dinne' of the hut. When the labour pain starts they arrange a labour room in the 'dinne' and the girl is segregated there and made to live there until the pollution is dissipated. The period of pollution is 6 days in the case of a female child and 7 days for a male child. Usually the mother of any one of the spouses will be attending the delivery and nursing the girl. On the first 7 days after delivery there is some restriction in the diet of the mother and she won't be allowed to take any non-vegetarian food. She has to drink turmeric juice and ragi gruel mixed with salt and pepper. On the next day i.e. when the birth pollution ends the mother has to take bath in the river and wear new clothes. A feast is given to the relatives on that day and an amount of Rs. 15/- to Rs. 25/- and new clothes are given to the woman who nursed her.

During the pollution period no male member is allowed to see the mother and the child and it is on the 7th or 8th day the father can see his child for the first time. A waist chain of plantain fibers is being tied to the child by the grand mother and the father calls a name by beating a rod on the metal saucer, and the mother puts bangles to the child. The headman gives Rs. 10/- or Rs. 5/- to the child and later the members present there also give small amount to the child as gifts.

Though the birth pollution ends by 6 or 7 days the mother has to stay in the 'dinne' itself till she completes 30 days and she is allowed to enter the hut on the 32nd day only after taking bath in the river. But from the 7th or 8th day onwards she can take non-vegetarian food. For the first six months the infant will be fed only with the mother's milk and on an auspicious day of the 6th month the members of the settlement give a feast to the mother, and on this feast the infant is given boiled rice by the mother or grandmother.

Puberty

When a girl attains puberty her father has to report this news to the headman and the headman informs this to the girl's relatives and other members of the settlement. In the case of puberty, pollution lasts for 7 days and on those days the girl should stay in the 'dinne' of the hut. During those days of her pubescence friends will be attending or nursing her and it is their duty to make her happy by singing songs or telling jokes. No male member is allowed to see her or she is allowed to see any male members during that period. On the 8th day there will be certain ceremonies and a feast in the girl's hut in which all members of the settlement except the 'mannukkare' attend. The expenses of the feast are met either by the girl's parents or by the members of the settlement.

Before the feast, the girl is led to the river by two elderly women (usually her sisters-in-law) for bathing. A wooden mortar which contains turmeric and flowers, and pestle is placed in front of the hut and on the way to the river the girl should hold the centre of the pestle while the women accompanying her hold the upper and lower parts of the pestle. They jointly raise the pestle and hit on the mortar three times. Then the accompanying women take the turmeric from the mortar and smear it and return to the hut. On the way the process of hitting the pestle on the mortar for three times is repeated and they jointly push back the mortar. Then they directly enter the hut without looking backward. Feast will be served to the members of the settlement only after the girl and the two accompanying women were feasted. The girl has to return all the ornaments she received from other women of the settlements on the day she attained puberty. The period of pollution in the case of menses is for six days and during those days the polluted woman has to stay in the 'dinne' of the hut.

Settlement pattern

The Mudugas live in clusters with twelve or so households in each settlement. The Muduga hamlets are referred to as 'ooru' and the huts a 'kure'. The small squatter huts are low ceilinged with the ceilings not exceeding five feet from the floor level. The huts supported by bamboo splinters and thatched with forest grass have small doors and low ceilings, they being so designed as to

withstand the onslaught of adverse climatic conditions and strong winds. The floors are plastered with cow dung, clay and soil. These huts ordinarily contain two small rooms, the backroom (ullara) is being used as kitchen and the front room (vettara) is for the storage of agricultural products and as the place of worship of the household deities. Besides these there is also an adjoining verandah in the front of each hut, as 'dinne'.

Besides these huts, there are houses provided by the Government, which consist of a long hall separated into several apartments by brick walls. The apartments are brick buildings with tile roofs, which they refer to as "ottujure". Although these are high ceilinged ones they are also provided only with two rooms and a front verandha.

Dress and ornaments

The apparel of men is sober and consists only of a handloom towel round the waist reaching up to the knee and the upper portion of the body is wrapped in a dhoti slung from the shoulders. Men are also seen wearing banians and rarely shirts are used. Elderly Mudugas toil in the fields with only the loincloth tied around the waist.

Women's apparel consists of a brightly coloured strip of cloth five feet long and four feet wide referred by them as 'cela'. 'The 'cela' wraps tribal women folk from the upper part of the breast to the knee. While indoors the upper portion of their body is exposed and the 'cela' is tied around the waist, but while outdoors the top portion of their body is not exposed. All through Attappady area only Muduga woman was seen wearing skirt and blouse.

Both men and women have their earlobes punched. While the men folk are not seen wearing any ear studs, the womenfolk use ear studs and rings. The women wear nose rings on either side of the nose. Rings are used extensively by both sexes, while men wear only finger rings, the women adorn their fingers and toes with rings. Bangles made either of plastics or metals adorn the slender wrist of women. Necklaces around the necks are either of the black coir chord or of stones. The most priced piece of jewellery is the necklace of 25 paise and 50 coins

interspersed with small rings held together by a coir chord (panamala). The other ornaments are made up of cheap metals. Gold is conspicuous by its absence in their adornments.

While women grew their hair long, men cut their hair frequently. Women's hair-do is very simple, they roll the hair and are kept in a bunch behind their head. Men resort to tattooing infrequently. It is very common among women. They usually tattoo the figures of fish, rat, scorpion, crab etc in the hands, legs, chest, and forehead. They do not use oil on the hair or on the body. As the ladies go to the river for taking water they keep their body clean by washing, although they take bath rarely. Men do not take bath or wash their body regularly, only occasionally they go to the river and wash their body.

Political structure

Each Muduga hamlet is presided over by a headman (Muppe). The hamlets of Mudugas are reserved exclusively for themselves and are devoid of other tribes such as Irulas and Kurumbas. The headman is assisted in his administrative responsibilities by three men 'Kurulate', 'Vandari' and 'Mannukkare'. The headman is kept informed of all the happenings in the settlement. All the ceremonies are presided over by the headman, these include deaths, marriages, births etc. The permission for hunting by the tribesmen is granted by the headman. He is the arbitrator of all disputes arising in the villages and is vested with the authority to punish the accused. The accused in the disputes are fined a penalty of not less than five rupees. The penalty due is apportioned along the headman and his assistants. In each settlement, opposite the hut of the headman, a thatched shed (cavati) is erected where guests to the settlements are entertained. As a rule, the guests are feasted on the food brought from outside, as it is taboo to serve food prepared within the village. Guests are free to cook their own food. The necessary arrangements are made by the headman and he is assisted by Vandari and Kurutale. All transactions conducted without prior permission of the headman are treated as null and void. A confession is extracted from those who indulge in these and suitable punishment is meted out. All decisions regarding the

administration of the settlement are made in the headman's hut and attendance of all elder members of the community is obligatory.

In the absence of the headman all powers are delegated to the 'Kurutale' and 'Vandari'. Though in the matters of administration all powers rest with the headman, the farming operations and the connected ceremonies are under the strict control and guidance of the 'Mannukkare'. The position of the headman and his assistants pass from one generation to the next hereditarily by patrilineal law of succession. In the absence of major male heir for the headman, the administration is entrusted to the 'Kurutale' and 'Vandari' until the heir comes of age. In the event of the headman dying heirless i.e. without any male children, the post reverts either to his sister's son or to his younger brother. An election is resorted to fill the post of the elder, should it fall vacant, with voting right to all members of the community, in the case where the deceased headman possesses no younger brothers.

Economic structure

The Mudugas had rights to private plots of land. Their principal agricultural products are chama, ragi, paddy, red gram, black gram, horse gram, cotton, groundnut, ginger, sweet potato, tapioca etc. All over the settlement the farming operations start simultaneously. With the prior permission of the headman, the 'Mannukkare' chooses a Monday, considered as an auspicious day for sowing as well as other religious ceremonies, proceeds to the plot with the seeds subjected to sorcery and initiates sowing a parcel of land, which would have been previously ploughed for the same purpose. Four days after the sowing initiation ceremony, the farming operation starts with accompaniment of music and songs, closely watched and guided by the headman and his assistant. Agriculture is characterized by labour sharing without the attendant crop share, the proceeds of the harvest remaining the absolute property of the owners. Community members who are polluted by birth, menses, death etc, are barred from working in the fields. In order to protect the standing crops from the degradations of wild animals both men and women take up residence near the plots till the harvesting is over. 'Mannukkare' apportions a share of the harvest due to him for his initiation ceremonies, for it is

believed that due to his good offices and services rich harvests are reaped. The products of the land is sold even before it is harvested, the proceeds of which are utilized for procuring other necessities of subsistence. They seldom save for the rainy day.

Occupation

Besides working in their own fields their labour services are eagerly sought after to work in the fields of non-tribals. They work regularly and during farming season their services fetch the tribesmen Rs.4.50 and the women Rs. 3.50 a day. Others who do not choose to work in non-tribals land proceed to the interior areas to fetch the fruits of the forests. The forest provides these men with a good means of livelihood. The principal forest products are honey, cardamom, tuber etc. Domestication of animals is also quite common among these people. The community's cattle, goats, fowls etc., are reared and led into the pasture by female children of the community. Generally they do not consume either egg or milk.

Religious beliefs and practices

The principal God of Mudugas is 'Malliswaran'. It is believed that he is an incarnation of Lord Siva. The abode of 'Malliswaran' is the top of the hill known as 'Malliswaramuti'. The legend is that the Mudugas have consecrated their idol there. The myth is that Lord Siva and Goddess Parvathi chanced to come to the Muduga settlements. The sight of this unfamiliar couple soon sent forth enquiries as to the purpose of their visit. On ascertaining it was found out that Goddess Parvathi wanted a light and 'Puja' everyday while the demand of Siva turned out to be light and 'Puja' once in a year. Parvathi's demand was difficult to be met while at the same time Siva's was well within their means. So they banished Parvathy and consecrated Siva's idol atop the hill. To this day, the vow of the tribals at the request of Siva is observed unfailingly every year. At the foot on the way to the hill is the shrine of 'Malliswaran' where all tribals irrespective of age and sex are permitted.

Pilgrimage to the 'Malliswaran' peak is undertaken once in a year. Women are barred from participating in this pilgrimage. Men are required to subject themselves to a strict routine for seven days. Early in the morning they administer

a dose of turmeric milk, and only after this they are allowed to take any other food. Alcohol and flesh of animals are prohibited. Contact with women and the consumption of food prepared by them are disallowed. New utensils are used for the purpose. On the morning of the 'Sivaratri' day all in the settlements worship at the shrine of 'malliswaran' from whence they proceed to the bank of the river Bhavani. The participants of the pilgrimage carry with them offerings to the god, which consist of oil, coconut, banana, camphor, rice, jaggery, ghee etc. These are handed over to the priest who has specially arrived for the purpose of 'puja' from Nilagiri. He bundles the tributes to the god and places it on the head of the pilgrims for which he receives a token payment in the form of dakshina. The pilgrims then proceed to hilltop leaving behind others to wait for their arrival from the hill.

The pilgrimage is led by the 'pujari' with others following them closer on the heels. The whole atmosphere reverberates with chanting of the names of gods. The idol of 'Malliswaran' is unapproachable to all except the priest. All the 'pujas' and the accompanying religious rites are the sole responsibility of the priest, after he has denuded himself of all clothes. Besides lighting in the evening, a desert (payasam) is prepared with the ingredients, which are offered as tributes to the god. After the 'puja' they eat that desert and at night they entertain themselves with dance and music. Next morning they descend from the hilltop in the accompaniment of chants and proceed straight to the shrine of 'Malliswaran' from where they return to their settlement accompanied by others.

At the top of 'Malliswaran peak' a little away from the idol of Malliswaran are consecrated the idols of 'Vakara Ayyappe' and 'Kakkilinge' the former is the elder and the latter being the younger of his sons. It is believed that the idols of 'Vakara ayyappe' were consecrated little below the idol of Malliswaran because of the innate crookedness of his character. The legend is that the 'Vakara Ayyappe' punishes those pilgrims who proceed to the hilltop without the necessary regimen. He is offered the coconut and banana with hind side of it facing the idol. This custom has its roots in the belief that these gods consume only the shell of the coconut and the stem of the banana. It is believed by the tribals that the duty of 'Malliswaran', is to protect the community.

Next to 'Malliswaran' the most revered is the goddess 'Mariyamma'. The shrine of 'Mariyamma' is at Thavalam in Attappady. She is very rarely worshipped, the reason for a visit is the time of the outbreak of small pox epidemic. It is believed that she is the harbinger of all diseases, especially the deadly small pox. The onset of small pox is accompanied by a visit mostly by women and appeases the goddess by sacrificing a chicken. This is presented to the oracle of the village.

Apart from these gods and goddesses each hut has its own household deity known as 'karudeyva'. The metal idol of 'karudeyva' is considered to be the embodiment of souls of the dead people. The 'karudeyva' is considered to be the protector of their property and lives. A lighted lamp is placed before the idol every day.

Social customs

For the purpose of marriage alliances the Mudugas are divided into four exogamous groups. They are, Karuttiga, Vellega, Kuppuniga and Arura. The Karuttiga can take brides or give brides only to the members of the vellega group. They cannot have any marriage alliance with any other group. Likewise the members of the 'kuppuniga' group can have marriage relationship only with the Arura group. The Mudugas encourage cross cousin marriages i.e., marrying maternal uncle's or paternal aunt's daughter. Polyandry is prohibited, but polygamy is practised in a restricted way i.e., when the first wife does not bear children or becomes unhealthy. Divorce and widow marriages are allowed.

4.4 Kurumbas

4.4.1 General characteristics

The Kurumbas live in about fourteen hamlets in the Attappady area of North Kerala, in Southwestern India, a forest region with an elevation ranging from 1,200 to 3,000 feet. Attappady literally means leech valley. The area is tropical in climate and vegetation, with occasional stands of cycas palms and certain thorny shrubs. The Kurumbas and their neighbors in the southwestern foothills and the Mudugas, have a similar ecological setting and settlement pattern. They share many cultural

features, have alliance relationships, and there is frequent social interaction between adjacent groups.

4.4.2 Life Cycle structure of Kurumbas

Marriage

Patrilineal exogamous divisions (kal) such as Bainanal, Meriyal, Ommathanal, Kunnathanam, Murali, Sathan, Kulla sathan, Sadiyal, Thuppudanal, Kalpanachan, Egachal, Malakaranal, Mooliya and Kankula Chemmiyal, are found among the Kurumba as kal. This division, according to them, exists only for the regulation of marital alliances. But it is found that the division serves the purpose of descent and ancestry also. Besides these divisions, there are the janmam or locality denoting divisions such as Anchali, Aythur, Aruvaka, Nakkuvaka, Palappady and Pulluru which are losing their significance in these days.

The Kurumba's marriage should be within the community but outside one's own clan. The conventional type of marriage is between the cross cousins, i.e., maidinan and nadini, either paternal or maternal. Girls are married only after puberty while boys get married generally between 20 and 25 years of age. Generally, elders through negotiation arrange marriages. If the negotiations take time, then marriage by elopement occurs. In most cases, the boy and girl have met earlier and fallen in love. After the fixation of marriage the girl may live with her fiancé even before the ceremony. Polygamy is frequent, monogamy is presently affordable, though not a preferred norm. Polyandry is objectionable and is not in practice.

Both the sexes of the Kurumba can divorce for reasons of adultery, barrenness, cruelty, mal adjustment and desertion with the approval of nayanodi, their traditional council of the elders. If the wife wants divorce then the pariyam should be reimbursed. The children are always considered as the liability of the father. If a divorced couple wishes to live together again, they should seek the approval of nayanodi and pay thappu panam (cash fine). Widow/widower and divorcee are permitted to remarry. Sororate is permitted. Levirate is discouraged but not prohibited. Community endogamy is now not so strictly enforced.

Intercommunity marriages of the area are in prevalence and both the communities without any hesitation welcome such marriages.

The status of Kurumba women is slightly secondary. The right to inherit is denied to them. They participate in agricultural operations, collection of fuel, bringing potable water and cooking which are female chores. In social functions and religious spheres, the women have roles to perform. Women participate in it, but do not conduct rituals. Women work as wage laborers and contribute to family income. Among the Kurumba, delivery takes place at the husband's house. Mother in labour is secluded to a corner of the hut. Her other relatives also avoid eating in this house. There is no pollution removal ceremony as such. On the eighth day, she takes a bath as usual and is considered free from pollution. After one year or so, the thalairakka or shaving of head hair of the child has to be performed. They believe that the head hair which comes along with the birth is inauspicious and only after the removal of this the child can step into prosperity.

The Kurumba marriage rituals are performed at the bridegroom's residence. The Mannookkaran, their priest-cum-agricultural expert is the chief officiator. It is said that, in the past, the marriage was celebrated for three days. On a Sunday, the bridegroom's party excluding the bridegroom goes to the bride's house. The next day, i.e. Monday, they bring the bride and her relatives to the bridegroom's house. On Wednesday, the marriage rituals are performed. But, nowadays, it is reduced to a single day ceremony. The bridegroom, in front of all, hands over the pariyam to the bride, which she, in turn, makes over to her father. The pariyam may be paid in installments also. When this is over, the bride's relatives hold the hand of the bride and place it on the bridegroom's hand, while the bridegroom's relatives hold his hand to receive the girl. The tying of Keera kallu follows this. Then all are treated to feast music and dance throughout the night in celebration of the consummation of marriage.

Kin terminology and the cross-cousin marriage rule regulate marriage and appropriate kinship behavior. Kurumbas have a Dravidian-type kinship terminology and practice bilateral cross-cousin marriage. A man is prescribed to marry a woman of the category *naidini* and a woman to marry a man of the

category maidine, the category that includes bilateral cross-cousins, no preference is expressed for either the paternal or maternal side. With no ceremonial event, the couple is considered married when the girl starts living in the boy's hut. Sharing food and labour and co-operating in domestic affairs are the basic features of Kurumba married life. Marriages crystallize as time passes, children and other indices accumulate, bride price is paid, and the community comes to recognize the union. Years ago there was the custom of bride-service (*pennu vela*) to the bride's parents for a period of two to three years. Bride price (*pariya-panam*), is given by the groom's family to the bride's. Bride price need not be paid strictly at the time of marriage but must take place eventually. The strong underlying rule of reciprocal exchange ensures that no marital union can escape the transaction of bride price. If not at the time of marriage, or later at the death of either of the spouses, or even as late as the second funeral, bride price has to be paid by the agnates, failing of which results in the husband's group's denial of rights to the wife and her children. Most exchanges take place at funerals, when affiances clear their long-pending marriage debts. Payment of the bride price ensures the transfer of rights to the woman's labour, to her sexual services, and above all to the children. Thus, it is both the wife's kin and the husband's kin who are concerned with payment. While the bride price payment serves to transfer to the husband's group all offspring of the bride, the bride herself and her clan identity are not completely transferred until her death. It is not uncommon for men and women to have a succession of two or more spouses in their lifetime, but they do not have more than one spouse at a time. Divorce or separation is easy and common. Widows may remarry and need not remain with the first husband's agnates.

Death

The Kurumbas bury their dead usually on the third day after death. The chief mourner is the eldest son. If an unmarried boy or girl dies, then the chief mourner is the cross cousin of opposite sex, i.e., the *nadini* or *maidinan*. The body is washed and covered in a new cloth, and kept in the verandah usually inside a booth made of plantain stems. If the body is of an unmarried person then the *nadnini* or *maidinan* should place the *uruma panam*, his/ her due towards the departed soul on the chest/breast of the body. They dance along with funeral songs

in the accompaniment of thugi (an indigenous drum). This is continued till the burial is complete. They have their own burial grounds near their hamlets. On the third day, the body is carried on a bamboo bier to the burial ground, where the grave is already made, and is lowered into it with its head pointing to the north. Along with the burial the pollution also comes to an end. Every fifth year or so, the Kurumba perform mortuary rites (cheeru) for the departed souls.

Birth

Among the Kurumbas, the delivery of the child takes place at the husband's house. She is secluded in a hut. Her mother-in-law or any other elder woman act as a midwife. The pollution lasts for a week. On the eighth day, she takes a bath and is free from pollution. After one year or so, shaving of head hair of the child has to be performed. This is thought to be a sign of prosperity. They have their own methods of family planning and most of the families have only two or three children.

Puberty

On attaining puberty, a Kurumba girl is secluded for 14 days and on the 15th day, the puberty rite is performed. At this stage she will not reside in a separate hut. The girl should be residing in a different part of the same house. They will construct a separate curtain in that room. All other customs are like those of the Mudugas. The mother's brother offers presentations to her. The girl, after seclusion is given a bath in the river and is dressed. A modest feast is optional.

Settlement pattern

The Kurumba hamlet (ooru) is a cluster of ten to 30 huts (kooari) mostly built contiguous to close kin. The rectangular bamboo hut is about six feet high, four feet on either side, and has a main room for cooking and sleeping and a front porch (dheett). The sloping roof is built with bamboo splits used as rafters tied with wild vines, a thatch of dharbha grass makes a rain-proof roof. The walls are plastered on the inside with clay. The hut has two roughly equal parts, one secular, toward the entrance (vettard), and the other (ullara) more sacred, close to the fireplace.

Dress and Ornaments

Earlier the males wore a loin cloth. Now they are seen in shirts and pants. Women wear cloth ties above the breasts below the armpits and falling the knees. On festive occasions, they wear a sari, blouses and brassieres. The females use ordinary ear rings and anklets, tattoo their forehead. They are non-vegetarian and eat beef and pork. Rice is their staple food. They also make use of wild roots and tubers. They use jungle fruits and milk products. Men and women smoke bidis, cigarettes and ganja. Many drink toddy and arrack. Adults chew betel with tobacco.

Political structure

The Kurumbas have their own traditional hamlet council (nayanodi), comprising the elders of the ooru (hamlet). The hamlet council of elders makes decisions for the tribe. The nayanodi is informal and takes its decision by consensus. The council decides all socio-economic and legal matters. The mooppan is the headman, next to him and almost of equal status is the mannukaran (priest-cum-agricultural expert). There is a bhandari (cashier) and one or two kurutalai (peons). All these offices are hereditary, and the eldest sons succeed. The nayanodis effectiveness depends usually upon the personality of the mooppan. All matters considered important enough are within its jurisdiction. The authority of the mooppan is not so blindly obeyed as it was in the past. Younger generation wants 'modernization' and they are willing to seek 'outside leadership' to achieve their ends. Their hamlets fall within the jurisdictions of three-gram panchayaths, to which some of them have been nominated as members. Panchayath now seeks to discharge some of the functions of the nayanodi. Access to the police is easier than it was. They function within the clan and do not accept anything from the clans.

Traditional Occupation

Kurumbas are shifting cultivators and they collect honey, wax, turmeric, and wild ginger, soap nut and wild cardamoms. Most of their hamlets are in thick forests. The licenses are given to each hamlet. Their cultivable lands are called kothukadu. Of late, they are cultivating ganja also. However, their subsidiary occupations are basket making, mat weaving, goat and poultry keeping and casual

labour. The tribe's people know the art of body tattooing. They are experts in making mats and baskets. They sing and dance, when happy. They normally use drum and pipe as musical instruments.

Religious Beliefs and Practices

The Kurumba follow tribal religion. They worship Siva as the lord of Malliswaran Mudi, the highest peak in Attappady. The spirits of ancestors are worshipped as clan and family deities. Of the Hindu pantheon, they worship Siva as the lord of Malliswaran Mudi, the highest peak in Attappady. The 'Banjamma pai' and 'Kakkalinga pai' are two major deities of their pantheon. They make pilgrimage to Malliswaran Mudi on Sivaratri. Kurumbas will not construct any temple. They follow the history of the Dravidians. Life cycle rituals are performed or presided over by Mannukaran. He propitiates the deities controlling agriculture. Kurikaran, bhutikaran and pusari are recently evolved specialists for divination, exorcism and worship of 'Sanskritised' deities' respectively. Amma puja, pai puja, Cheeru nombi (Sivaratri) are the major festivals of socio religious significance. They profess Hinduism.

The status of the women is slightly secondary in society. The basic right to inherit is denied to them. Their main duty, besides household, is on the field, collection of fuel, bringing potable water and cooking food. They participate in socio-religious functions. Attappady is the home of three tribal communities, the Irula, Muduga and Kurumba. The recent settlers (Malayali and TAMILIAN) are called vannavasi, i.e. those who came. The Kurumba and Muduga are like one people, and freely interdine and intermarry. They consider the Irula to be inferior. They have access to public buildings, schools, roads, wells and other water sources. They visit Hindu temples and participate in the festivals. A few are employed as last grade employees in the forest department.

Social organization

The basic unit of Kurumba social organization is the patrilineal descent group (koottatri). Each hamlet is associated with a particular descent group whose ancestors are believed to be the original inhabitants of the land. The founding descent group has final rights over the land and is governed by a council of elders.

A headman is the formal spokesman of the hamlet. With two assistants and the priest, along with elders of the hamlet, a panchayath is formed to settle disputes and discuss matters of any kind. The council members enjoy higher status and authority over others during political sessions and religious functions, but on the whole they are treated as equals with the common members of the hamlet.

Local groups or hamlets are not restricted to agnatic kin. They have free and equal access to wild food, water, materials for making shelters, tools, weapons, and to whatever wild products are used for trade. "Ownership" broadly means association, involvement, and identification with the area, rather than possession of something. Thus a person may shift residence from his native land to his mother's, his wife's, or to his father's mother's group. Ownership of land is collective, in the sense that all the descendants of a common ancestor are joint owners of the hamlet and its territory.

Individuals change residence for various reasons, for example, conflict between families or between kin groups in a particular hamlet, fear of sorcery, and bride-service. Close affines, when in need, may come to reside near kinsmen such as a wife's father, or her brother, or maternal kin, and cultivate a portion of their land. Men become residence group members where they live but lack rights to a wife's land. In some cases, daughters may use their father's land throughout their lifetime, but unlike sons do not inherit it, and consequently cannot pass it on to their children. However, it is not the individual or the family that matters, but the consent of the council members, especially the headman of the hamlet. Clothing, tools, and ornaments are relatively simple, personally held, and usually buried along with the deceased. No one depends on receiving such objects either by inheritance or by formal transmission.

Kurumbas tend not to concern themselves in daily affairs with nature and role of their descent groups. These factors give the impression that they lack a deeply rooted patrilineal ideology, which in fact forms the basis of their social organization. Though affines are co residents and form part of the hamlet's social life, even after generations they will not be taken into the descent group, identity through locality and descent are independent of each other. Kurumba religious

belief is based on ancestral veneration and fear. The ancestors are their best protectors, and are invoked with regular offerings and propitiated at the sowing and harvest ceremonies. Failure to do so is believed to result in infertile soil, poor crops, famine, disease, and other misfortunes. The Kurumbas bury their dead on the second or third day with great ceremony. After 40 to 50 years, another funeral is held when the bones of the deceased agnates are unearthed and, after prolonged obsequies, are reburied in a rock cave called "gobbe".

The Kurumbas also invoke the spirits of their dead relatives for success in hunting. The hunting implements, especially the locally made guns, traps, and snares, are in the name of their ancestors, who are considered to be "hunting spirits". Hunters may invoke not only agnatic spirits, but also spirits of their dead affines like gardening magic is also practiced.

After the patrilineal koottam, the nuclear family is the most prominent discrete social group and always takes the form of a domestic unit. However, members other than the nuclear family also form part of a household. Moreover, the composition of the household frequently changes through a continuous pattern of separation and re aggregation of families and individuals. The basic requirement of a Kurumba household is the sharing of domestic activities by a man and a woman. Children also assist their parents in various activities, giving rise to a sex and age division of labor. Women and children mainly engage in gathering and collecting leaves, roots, tubers, and mushrooms. Men rarely engage in gathering. In certain cases, husband, wife, and sometimes children and older women go in groups for gathering. Fishing is done by women and children, collecting honey is done only by men, who are skilled in climbing trees and driving away bees. Hunting is also a male activity, a group of men proceed together into the forest for two to three days in search of game. Sometimes women also go along, particularly to assist their husbands by carrying tools and also in capturing small game.

Sharing is valued and meat is widely distributed within the hamlet. Game is apportioned to everyone who is directly or indirectly involved in the hunt. The one who shot the animal gets a major share. Smaller shares are given to the other hunters, affines, parents, and siblings. The rest of the meat is distributed at the kill

site among those who have come to cut the meat and carry it. So strong is the sentiment of sharing that after a major hunt all the households in the hamlets (and sometimes close relatives, especially sisters, residing outside the hamlet) receive a share. The sharing ethic is strong enough to prevent households from storing meat for their own consumption.

Since there is direct and immediate access to food and other resources, individuals can meet their own requirements as they wish. Neither kinship status nor age is a qualification for access to hunting and gathering resources. Anyone who wishes to hunt or gather can do so either individually or in association with others, thus placing a high value on individualism and autonomy. Away from the hamlet, the Kurumbas feed themselves by picking and eating berries and tubers. Children of both sexes often collect greens to cook for themselves.

All the members of the household co-operate in clearing land for cultivation. Men clear and set fire to the field, but ploughing, sowing, weeding, and harvesting are done by women. The female members of related households weed together as a unit. The households of primary relatives of either the husband or the wife usually reside close by and co-operate, interact, share labour, and form food-sharing households. Between the members of closely related nuclear households in a hamlet the obligations are more intense and social interactions are as frequent as among the members of a joint household. In fact, the degree of genealogical proximity, ranging from the household to the hamlet, determines the level of co-operation and sharing. Among primary kin, there is no strict rule of reciprocity, and even if the help is not returned, no one takes notice of it.

The two-section framework of Kurumba kinship terminology divides relatives into two categories, the agnates (*anna-thampi*) and the affines (*macha-mamari*). The fundamental opposition of sharing among the agnates and exchange between affines form a major axis of Kurumba social structure. Between affines there is the exchange of women, bride price, goods, and services. Among themselves, agnates share food, land, labour, and above all "agnatic substance." The perpetual flow of women between clans is reciprocated by the flow of goods, services, and bride price in the opposite direction, and this process is diachronic,

i.e., often as delayed reciprocity. Even though bride wealth payment is practiced, it is not only the immediate male agnates of the groom that provide the bride wealth. All the kin share the responsibility to contribute toward the bride price.

Social Change and Mobility

The Kurumbas were virtually illiterate but now they are conscious and send their children to far-away residential schools. The girls usually do not study beyond the primary school level. Even among the boys a few dropout after the primary school level, to assist their parents in earning a livelihood. They have comprehensive indigenous medicare. One of their mooppans is a famous medicine man. They do resort to modern medicine, in crisis. Electricity is not available. Their fuel resource is firewood. Their croplands are rained. They are unaware of chemical fertilizers and shun insecticides, which would be murderous to the sensitive ecology of their native forest. Under the ITDP, Balavadis and ICDS, free supplies of nutritional supplements are issued. Government pays fully for the support of their children at school. They have ration cards, but the fair price shops are far away. At their level of subsistence, savings and investment are meaningless concepts.

Chapter 5

Socio-Economic Conditions

SOCIO -ECONOMIC CONDITIONS

The unit of analysis is the household. As the study is on the socio-economic conditions of tribal women, one woman from the selected household is taken as the unit of study. The major caste/ethnic sections of the tribals in the study area are Irulas, Mudugas and Kurumbas. Three panchayaths are selected for the study. These panchayaths are Agali, Pudhur, and Sholayoor. Hundreds of respondents are selected randomly from each panchayath. Altogether 300 respondents are selected for the study.

5.1. Demographic particulars

Age- wise distribution of the respondents was studied and the same is given in Table 5.1. The respondents were classified into three groups namely, below 30, 30-40 and above 40. Table 5.1 shows that 20 per cent of the respondents belong to below 30 age-group, 66.3 per cent of respondents belong to 30-40 age group and 13.7 per cent, above 40 age group. All the respondents are females.

Table 5.1.

Age -wise distribution of the sample studied

Age group	Frequency	Percent
Below 30	60	20.0
30-40	199	66.3
Above 40	41	13.7
Total	300	100

Source: Field Survey Data

Table 5.2 presents the religion-wise distribution of the sample. Table 5.2 shows that 97.7 per cent of the respondents are Hindus, about 2.3 per cent, Christian converters to tribal religion. Though our intention was to select only tribal women, women belonging to other castes whom tribal men married creaped in to the sample. After their marriage these women followed tribal religious rules.

The main religion they follow is Hinduism. But even within the same community their religious practices and beliefs vary.

Table 5.2.
Religion -wise distribution of the sample studied

Religion	Frequency	Percent
Hindu	293	97.7
Christian	7	2.3
Total	300	100

Source: Field Survey Data

Table 5.3 shows the caste-wise representation of sample households. Caste determines the cultural attitude of the tribals. From the survey it is clear that tribals began to lose their attitude towards the caste. About 2.7 per cent of respondents are from the category of scheduled castes and others, from the category of scheduled tribes.

Table 5.3.
Caste -wise distribution of the sample studied

Caste	Frequency	Percent
SC	8	2.7
ST	292	97.3
Total	300	100

Source: Field Survey Data

Table 5.4 shows the marital position of the respondents. Of the 300 respondents, 97 per cent are married women and the rest, unwed mothers with one or two children.

Table 5.4.

Distribution of the sample according to marital position

Marital position	Frequency	Percent
Married	291	97.0
Unwed mother	9	3.0
Total	300	100

Source: Field Survey Data

Table 5.5 illustrates the distribution of the sample according to their status in the family. About 93.7 per cent of the respondents are wives, 4 per cent, daughters and the rest, mothers. Mother may be sometimes the grand mother. All but two respondents are wage labourers. All use local dialect for communication.

Table 5.5.

Distribution of the sample according to the status in the family

Status	Frequency	Percent
Wife	281	93.7
Daughter	12	4.0
Mother	7	2.3
Total	300	100

Source: Field Survey Data

Table 5.6 presents the frequency of households according to the number of members. Number of members in the family differs from one family to another family. The members range between 2 to 12 among families. In the sample studied, 39.7 per cent of the families have four members, 27.3 per cent, have five members, about 12.7 per cent, six members, 9.7 per cent, three members and 4 per cent, two members. From table 5.5 it is clear that joint-family system is disappearing from tribal life. They follow nuclear family system. In total, about 54.4 per cent of the families have four or less than four members. Only 6.7 per cent of the families have more than six members.

Table 5.6.
Frequency of households according to the number of members

Number of members	Frequency	Per cent
2	12	4.0
3	29	9.7
4	119	39.7
5	82	27.3
6	38	12.7
7	9	3.0
8	8	2.7
9	2	0.7
12	1	0.3
Total	300	100.0

Source: Field Survey Data

Table 5.7 provides summaries of the distribution of population according to the nature of the family. Among all the families, 92.4 per cent are nuclear, about 4 per cent are with their parents and 2.3 per cent, with their brothers and sisters. Mixed families are only 1.3 per cent. This also confirms the fact that joint family system is disappearing from the tribal life style.

Table 5.7
Distribution according to nature of family

Nature of family	Frequency	Per cent
Nuclear	277	92.4
Joint with parents	12	4.0
With brothers and sisters	7	2.3
Others	4	1.3
Total	300	100.0

Source: Field Survey Data.

5.2. Education

Table 5.8 illustrates the educational background of the respondents. Education is the most important factor which determines the development of people. Majority of the respondents are illiterate. The main reason for lack of education is the particular nature of their habitat. About 80.3 per cent of the respondents are illiterate, 15.3 per cent have primary education and 3.7 per cent, school education. Only two of the respondents have higher than SSLC qualification.

Table 5.8.
Distribution according to level of education

Level of education	Frequency	Percent
Illiterate	241	80.3
Primary	46	15.3
High school	11	3.7
College	1	0.3
Others	1	0.3
Total	300	100.0

Source: Field Survey Data.

Table 5.9 presents information regarding distance between residence and school. From the table it is clear that only 18.6 per cent of the respondents have school education. Distance travelled for getting education is an important factor in the case of tribals. Only 2.6 per cent respondents informed that the school is very near to their residence. About 11 per cent informed that they have to travel 2 to 3 k.m and 5 per cent, more than 3 k.m to reach the school. Majority are not educated. From the survey it is very clear that the tribals are very much keen to acquire knowledge. But the environment is not conducive for getting educated. Interior nature of their particular habitat is the main reason, which forces them from withdrawing from getting education. Heavy burden of household activities also restrict them from getting educated.

Table 5.9

Distribution according distance from residence to the school

Distance	Frequency	Percent
Less than or equal to 1 km	8	2.6
2 to 3 km	33	11
Greater than or equal to 3 km	15	5
Not applicable	244	81.4
Total	300	300

Source: Field Survey Data.

Table 5.10 provides information regarding the aid received by the respondents under various schemes. From the Table it can be seen that only 8.7 per cent received aid for education and the rest did not receive any aid.

Table 5.10

Response about whether they got any aid for their education

Response	Frequency	Percent
Yes	26	8.7
No	274	91.3
Total	300	100.0

Source: Field Survey Data.

Table 5.11 provides data relating to the education of their children. The table shows that 85 per cent of the respondents have got aid for the education of their children and the remaining 15 per cent have not got any aid for the education of their children. In the second category, majority of the students are not going to schools. The atmosphere is not conducive for providing education for them. From Tables 5.10 and 5.11, it is noticed that though they have not received any aid for their education, now the trend has changed and their children receive aid for their education.

Table 5.11
Response about whether they got any aid for the Education of their children

Response	Frequency	Percent
Yes	255	85.0
No	45	15.0
Total	300	100.0

Source: Field Survey Data.

Table 5.12 illustrates the sources of aid they got for the education of their children. From Table 5.11, it is noted that, 255 respondents are receiving aid for their children's education. Among these, about 3.9 per cent receive aid from the tribal welfare association and 94.5 per cent, from the State and Central Government. About 1.6 per cent of the respondents received aid from social organizations.

Table 5.12
Response about the source of aid received

Source	Frequency	Percent
Tribal welfare association	10	3.9
State/Central Government	241	94.5
Social organizations	4	1.6
Total	255	100

Source: Field Survey Data.

Table 5.13
Education they like to give to their children

Response	Frequency	Percent
Less than seven year schooling	3	1.0
Complete secondary schooling	1	0.3
Complete first degree in colleges	4	1.3
Complete advanced professional degree	4	1.3
As much education as they can	288	96.0
Total	300	100

Source: Field Survey Data.

Table 5.13 presents the attitude of the respondents with respect to provision of education to their children. As much as 96 per cent of the respondents revealed that they want to provide as much education as possible to their children. Only 1 per cent of the respondents wanted to restrict their children's education to less than seven year schooling. About 0.3 per cent would like to restrict their children's education to secondary schooling, and 1.3 per cent to degree and 1.3 per cent to advanced professional degrees

Table 5.14 highlights the responses of the respondents regarding the provision of facilities provided to their children. From table 5.14 it is clear that 82.3 per cent of the respondents are providing the necessary facilities to the children for their studies at home. Only 17.7 per cent cannot provide the necessary facilities to their children for their studies at home.

Table 5.14

Response about whether they provide sufficient facilities to the children for their studies at home

Response	Frequency	Percent
Yes	247	82.3
No	53	17.7
Total	300	100.0

Source: Field Survey Data.

Personal, financial and house hold problems are the major reasons for not providing the necessary facilities

Table 5.15

Reason for not providing sufficient facilities

Response	Frequency	Percent
Lack of proper food	13	24.5
Lack of lamplight	22	41.5
Engaged in household and other work	10	18.9
Lack of proper guidance	3	5.7
Any other reason	5	9.4
Total	53	100

Source: Field Survey Data

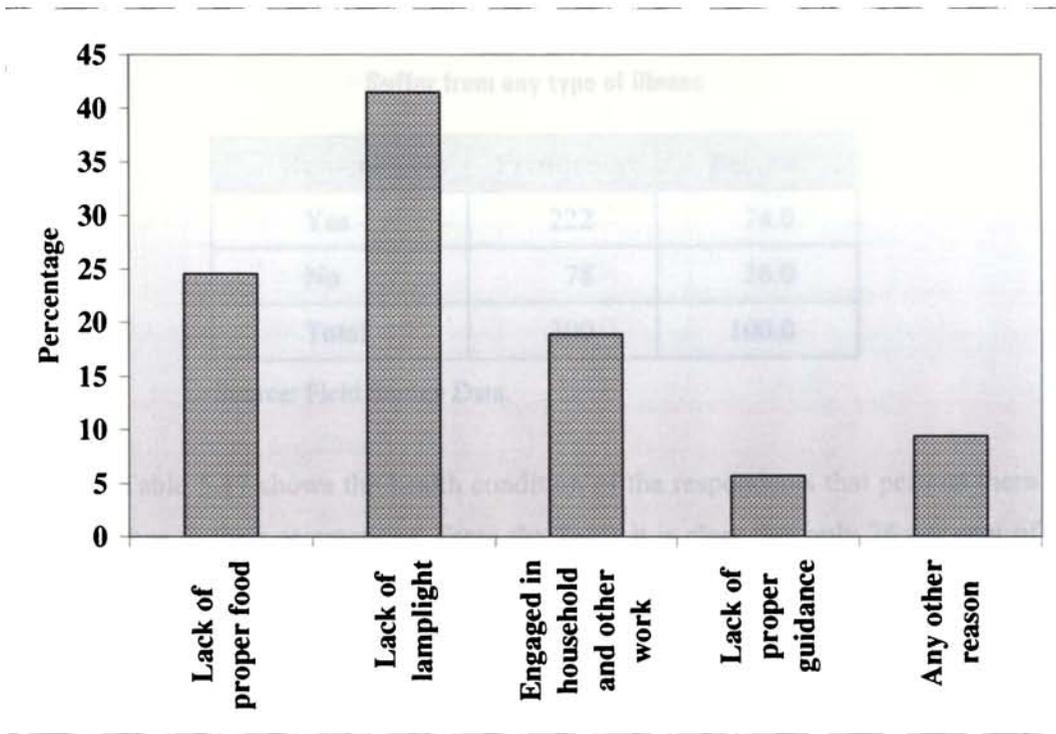


Figure 5.1. Percentage response for the reasons for not providing sufficient facilities for their children's study

Table 5.15 shows the reasons for not providing sufficient facilities for the education of their children. Lack of food (24.5%), lack of lamp light (41.5%) engagement in house hold and other work (81.98%), lack of proper guidance (5.7%), other reasons (19.4%) are the major reasons for not providing sufficient facilities for the education of their children.

5.3. Health

Table 5.16 provides details about the respondents suffering from illness. The table shows that 74 per cent of the respondents are suffering from some kind of illness. Only 26 per cent are not suffering from any type of illness. This indicates that their health conditions are not satisfactory.

Table 5.16
Suffer from any type of illness

Response	Frequency	Percent
Yes	222	74.0
No	78	26.0
Total	300	100.0

Source: Field Survey Data.

Table 5.17 shows the health condition of the respondents that permits them to continue in their occupations. From the Table it is clear that only 76 per cent of respondent's health condition permits them to continue in their occupations. The health conditions of 24 per cent of respondents do not permit them to continue in their occupation.

Table 5.17
Whether the Health condition permits them to continue in their occupation

Response	Frequency	Percent
Yes	228	76.0
No	72	24.0
Total	300	100.0

Source: Field Survey Data.

Table 5.18 provides the relation of the degree of illness with the work they are doing. Nearly 20.3 per cent of the total respondent's illness is related, to a great extent, to the work they are doing and with respect to 68 per cent of the respondents illness is related to some extent to the work they are doing. Only 11.7 per cent of the respondents stated that their illnesses are not related to the work they are doing.

Table 5.18.

Whether the illness is related to the work they are doing

Response	Frequency	Percent
To a great extent	61	20.3
To some extent	204	68.0
Not at all	35	11.7
Total	300	100.0

Source: Field Survey Data.

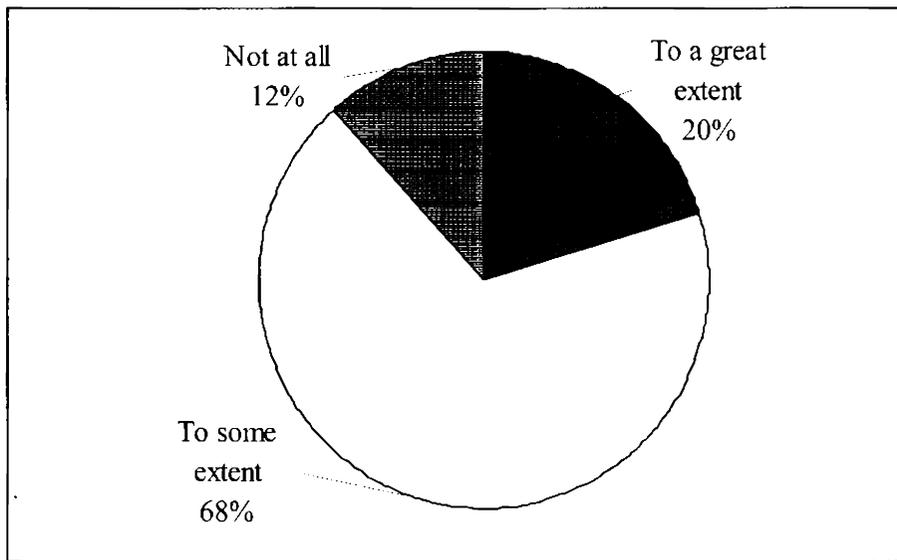


Figure 5.2. Percentage of response showing the relation between the work they are doing and health condition

Table 5.19 provides the responses of the respondents about treatment of diseases. Table 5.19 shows that 73.7 per cent of respondents are taking treatment to cure their diseases. Only 26.3 per cent are not getting enough treatment to cure their illness.

Table 5.19**Response about treatment for illness**

Response	Frequency	Percent
Yes	221	73.7
No	79	26.3
Total	300	100.0

Source: Field Survey Data.

Table 5.20 lists the reasons for not treating their illness. About 68.4 per cent were not taking treatment to their illness. They fail to take treatment for their illness due to lack of money. The rest 31.6 per cent of the respondents fail to take treatment due to lack of proper medical facilities. Health centers and hospitals in the study area are not sufficient to meet their health needs. They have to walk long distance to reach the health centers. In many an occasion, they cannot reach the particular places for treatment. It sometimes results in death of the patients.

Table 5.20**Reason for not treating for illness**

Reason	Frequency	Percent
Lack of money	54	68.4
Lack of proper medical facilities	25	31.6
Total	79	100.0

Source: Field Survey Data

Table 5.21 provides the reasons for continuance in occupation even though their health conditions are not good. The data reveals that 17 per cent of the respondents continue in their occupations even when they are ill as they have no other earning for their families. About 69.4 per cent of the respondents go for work as the earnings of other members in their families are not sufficient to meet the needs of their families, and 13.3 per cent of the respondents go for work because of no alternate means to meet the subsistence needs of their families. Some of the respondents (0.32) have other reasons to continue in their present occupation. In

many families, contributions of men to meet the needs of the family are less. They spend most of their income on activities not connected with family requirements. Women have no other option as all the responsibilities of the family are on their shoulders.

Table 5.21

Reason for the continuance in occupation even when the health condition is not good

Reason	Frequency	Percent
No other earning member	51	17.0
Earning of other members is not sufficient	208	69.4
No alternate occupation	40	13.3
Others	1	0.3
Total	300	100.0

Source: Field Survey Data

Table 5.22 shows the details regarding the responses with respect to getting nutritional diet for balancing and keeping their health conditions. From the table it is clear that only 23.3 per cent of the respondents get enough nutritional diet for balancing their health conditions and 76.7 per cent do not get enough nutritional diet for balancing their health conditions.

Table 5.22

Response about getting nutritional diet for balancing the health

Response	Frequency	Percent
Yes	70	23.3
No	230	76.7
Total	300	100.0

Source: Field Survey Data.

Table 5.23 shows that 15.7 per cent of the respondents have received financial aid for treatment of their diseases and others did not get any aid for treatment of their diseases.

Table 5.23
Response about getting any financial aid for the treatment of diseases

Response	Frequency	Percent
Yes	47	15.7
No	253	84.3
Total	300	100.0

Source: Field Survey Data

Table 5.24 indicates the sources of financial aid they received for the treatment of their diseases. Among the total respondents who received aid for treatment of their diseases, 83 per cent received aid from Government, about 2.1 per cent, from the tribal welfare fund, 12.8 per cent, from the social organizations, and 2.1 per cent, from other sources.

Table 5.24
Source of getting any financial aid for the treatment of diseases

Source	Frequency	Percent
Government	39	83.0
Tribal welfare fund	1	2.1
Social organizations	6	12.8
Others	1	2.1
Total	47	100.0

Source: Field Survey Data

5.4. Attitudes towards social and cultural activities

Culture plays a very important place in the day to day life of the tribals. Their uniqueness is symbolized through their culture. For every tribal community

culture is different from one another. Cultural aspects of their life have strong root in the past. They had a glorious history for every tribal community regarding their origin and growth. Because of the influx of non-tribals into their land there occurred erosion in their culture.

Table 5.25
Response about the interest in cultural programme

Response	Frequency	Percent
Yes	297	99.0
No	3	1.0
Total	300	100.0

Source: Field Survey Data.

Table 5.25 provides information regarding their interest in cultural programmes. About 99 per cent of the respondents like their culture strongly. Culture is one of the most important factors in which the tribals enjoyed their life very much. They have strong belief in culture. But due to external influence, there occurred some degradation in the tribal culture. Now they have started imitating the mainstream culture.

Table 5.26
Type of entertainment they like

Response	Frequency	Percent
Cinema	211	70.4
Music	46	15.3
Dance	43	14.3
Total	300	100

Source: Field Survey Data.

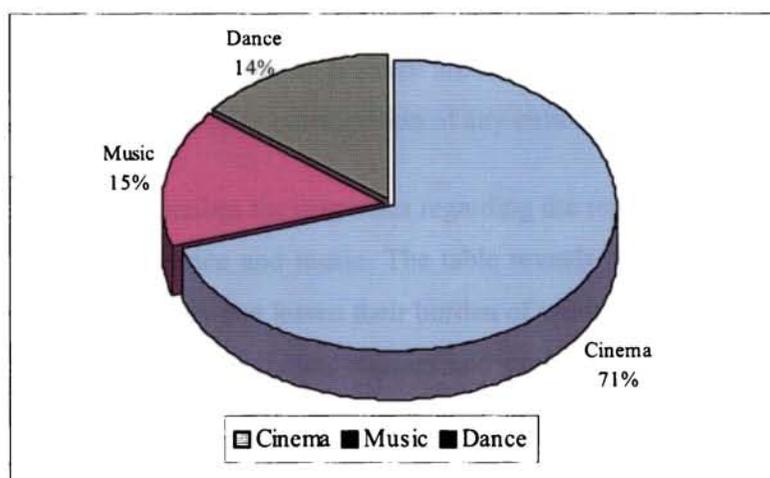


Figure 5.3. Percentage of response about the entertainment they like

Table 5.26 describes the type of entertainments they like. The Table indicates that 70.4 per cent of the respondents are interested in cinema, 15.3 per cent, in music and 14.3 per cent, in dance as their favorite entertainment.

Table 5.27
Response about the interest in performing cultural activity

Response	Frequency	Percent
Yes	294	98.0
No	6	2.0
Total	300	100.0

Source: Field Survey Data

Table 5.27 shows their interest in performing cultural activities. The Table shows that almost all the respondents (98%) are interested in performing cultural activities. As already noticed for tribals, their culture is very sacred.

Table 5.28
Response about the participation in cultural activities

Response	Frequency	Percent
Yes	288	96.0
No	12	4.0
Total	300	100.0

Source: Field Survey Data.

Table 5.28 presents the responses with respect to their participation in cultural activities. It shows that 96 per cent are involved in cultural activities. Only 4 per cent are not interested in participation of any cultural activities.

Table 5.29 describes the responses regarding the respondents feelings while they are engaged in dance and music. The table reveals that 42.7 per cent of the respondents feel that they can lessen their burden of work, about 50.7 per cent, feel that they can get relief from mental stresses and strains. Some respondents (6.7%) feel that it is an inspiration in the involvement of work.

Table 5.29
Feeling experienced while engaged in dance/music

Feeling	Frequency	Percent
Lessening the burden of work	128	42.7
Relief to mental stresses and strains	152	50.7
Interest in the involvement of work	20	6.7
Total	300	100.0

Source: Field Survey Data

Table 5.30
Response about to what the culture is related

Feeling	Frequency	Percent
Environment	250	83.3
Society	18	6.0
Forest	32	10.7
Total	300	100.0

Source: Field Survey Data

Table 5.30 illustrates information regarding the question to what their culture is related. About 83.3 per cent of the respondents hold the view that their culture is related to the environment, 6 per cent, to society and 10.7 per cent, to the forest. There are many differences in their culture.

Table 5.31

Response about their interest in culture

Response	Frequency	Percent
Yes	297	99.0
No	3	1.0
Total	300	100.0

Source: Field Survey Data

Table 5.31 gives some idea about the respondents interest in their culture. Ninety nine per cent of the respondents like their culture very much. Only one per cent does not have much interest in their culture.

Table 5.32

Response about reading or listening newspaper

Response	Frequency	Percent
Yes	27	9.0
No	273	91.0
Total	300	100.0

Source: Field Survey Data

Tribals attitude towards reading or listening newspapers is given in Table 5.32. The table shows that most of the respondents (91%) do not read newspapers. This is because of their illiteracy. The main reason for this is the atmosphere surrounding there. Lack of sufficient educational facilities ditter them from getting educated.

Table 5.33 represents the attitude of the respondents towards listening to radio. Most of the hamlets are not electrified. But because of their interest they listen to radio and television. About 2 per cent of respondents often listen to radio and 13 per cent sometimes listen to radio. But 85 per cent do not have any interest in listening to radio.

Table 5.33**Frequency of listening to the radio**

Response	Frequency	Percent
Often	6	2.0
Sometimes	39	13.0
Never	255	85.0
Total	300	100.0

Source: Field Survey Data

5.5. Economic conditions

Table 5.34 shows the status of the respondents in earning income for the family. About 97.3 per cent of the respondents are active earners for the family. Only 2.7 per cent are not active income earners for the family. Most of them go for employment, because without their income the families cannot sustain.

Table 5.34**Status of the respondents in the earning of income for the family**

Response	Frequency	Percent
Active earner	292	97.3
Not an active earner	8	2.7
Total	300	100.0

Source: Field Survey Data

Table 5.35**Occupational status of the respondents**

Response	Frequency	Percent
Agricultural labour	21	7.0
Cultivator	7	2.3
Labour in general	266	88.7
Labour in forest department	4	1.3
Unemployed	2	0.7
Total	300	100.0

Source: Field Survey Data

Table 5.35 explains the occupational status of the respondents. The table shows that 88.7 per cent of the respondents are coolies. About 7 per cent of respondents belong to the category of agricultural labourers. About 2.3 per cent are cultivators, 1.3 per cent are doing some temporary work in the forest department. About 0.7 per cent are unemployed. Majority of the respondents opined that the employment status is only temporary. In most of the months they experience unemployment.

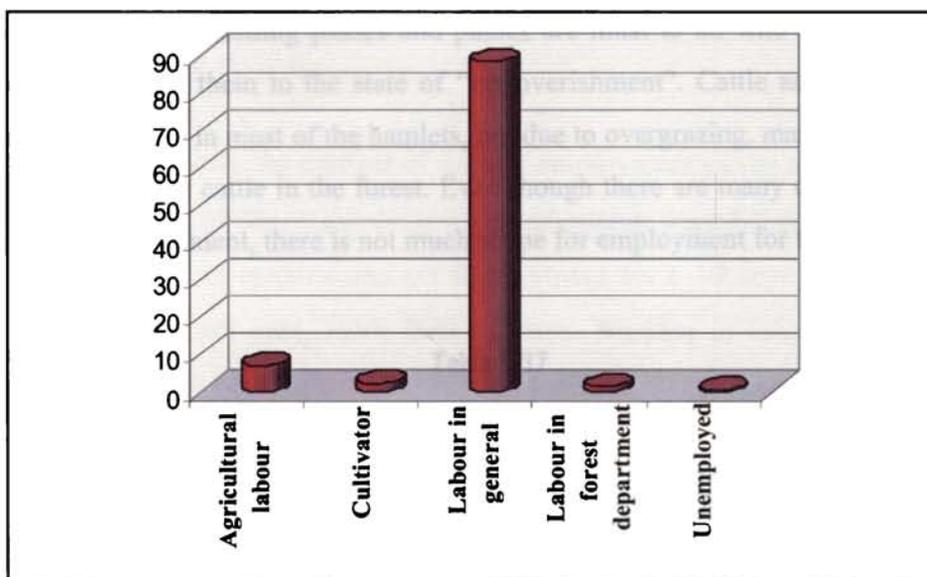


Figure 5.4. Occupational status of the respondents

Table 5.36

Subsidiary occupation of the respondents

Response	Frequency	Percent
Collection of minor forest produce	252	84.0
Gathering	35	11.7
Rearing of cattle's	10	3.3
Nothing	3	1.0
Total	300	100.

Source: Field Survey Data

Table 5.36 presents the responses about the subsidiary occupations of the respondents. Almost all of them (99%) have subsidiary occupations. About 84 per cent of respondents collect minor forest produce as their subsidiary occupations, 11.7 per cent go for food gathering, 3.3 per cent select rearing of cattle as their subsidiary occupation and 1 per cent of respondents are not engaged in any work. Though they go for collecting minor forest produce (MFP), there are severe restrictions in collecting minor forest produce. Forest Department restricts MFP collection through issuing passes and passes are must to all who want to collect MFP. This leads them to the state of “impoverishment”. Cattle are therefore the source of income in most of the hamlets, but due to overgrazing, many of them find it difficult to rear cattle in the forest. Even though there are many opportunities in the Forest Department, there is not much scope for employment for the tribals.

Table 5.37
Income per day of the respondents

Income per day	Frequency	Percent
30	1	0.3
40	1	0.3
50	275	91.7
60	2	0.7
80	19	6.3
Unemployed	2	0.7
Total	300	100.0

Source: Field Survey Data.

Table 5.37 shows the earnings per day of the respondents. About 91.7 per cent of the respondents receive only Rs.50 per day. Only 7 per cent get more than Rs.50 per day. Changes in the wage level in general will not influence the tribal economy

Table 5.38**Number of days of employment in a month**

Number of days	Frequency	Percent
1 – 5	18	6.0
6 – 10	233	77.6
11– 15	47	15.7
>15	2	0.7
Total	300	100.0

Source: Field Survey Data.

Table 5.38 shows the number of days of employment of the respondents in a month. Six per cent of the respondents get employment only 1-5 days in a month. About 77.6 per cent of respondents get employment for 6-10 days, 15.7 per cent, 11-15 days and 0.7 per cent, more than 15 days. Number of labour days in the study area is very less compared to the general situation. The wage structure is also not sufficient to meet the subsistence needs of the family.

Table 5.39**Estimated monthly income of the respondents**

Monthly income	Frequency	Percent
Below Rs. 100	15	5.0
101 – 500	281	93.7
501 – 1000	4	1.3
Total	303	100.0

Source: Field Survey Data

Table 5.39 shows the estimated monthly income of the respondents. About 0.5 per cent of the respondents get below Rs.100 in a month. Majority of respondents (93.7%) are in the monthly income category of Rs.101-500. Only 1.3 per cent has monthly income of between Rs.501-1000. This implies that majority of the respondents are below poverty line.

5.6. Living conditions

Housing is a major problem faced by the tribals from time immemorial. Table 5.40 shows the type of dwellings. Around 67 per cent of respondents are residing in tiled houses. Only 2.7 per cent of respondents live in thatched houses, and 30.7 per cent of respondents are residing in huts. In Kurumba area the Government's intervention is less. The condition of dwellings in Kurumba area is horrible.

Table 5.40
Type of Dwelling

Type	Frequency	Percent
Tiled	200	66.6
Thatched	8	2.7
Hut	92	30.7
Total	300	100.0

Source: Field Survey Data

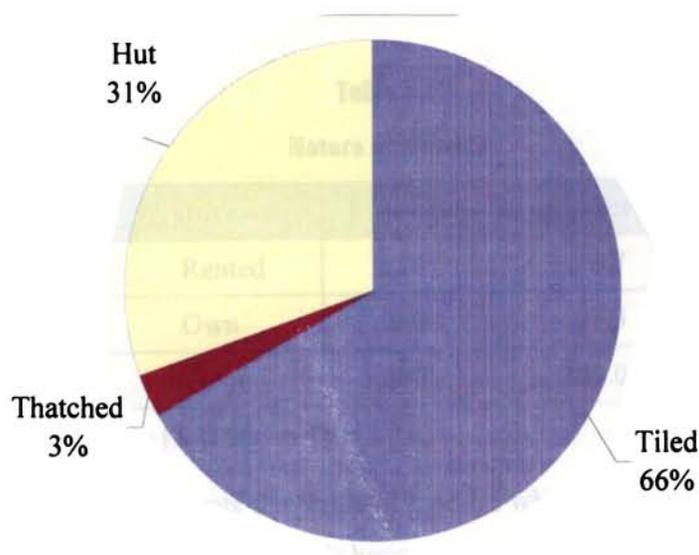


Figure 5.5. Type of Dwelling of the respondents

Table 5.41 presents details of the number of rooms in a house. About 90 per cent of the respondents opined that their houses have only less than or equal to three rooms. About 6 per cent have only one room in their houses, 69.7 per cent of the respondents have two rooms in their houses and about 20 per cent of respondents mention that there are three rooms in their houses. Only 4 per cent have four rooms in their houses. From this it is clear that housing facility is very poor among the tribals.

Table 5.41

No of rooms in the house

Number of rooms	Frequency	Percent
1	18	6.0
2	209	69.7
3	60	20.0
4	13	4.3
Total	300	100.0

Source: Field Survey Data

Table 5.42 presents information regarding the nature of tenancy. From the table it is clear that 93.3 per cent of the respondents are residing in their own homes, which is owned by them and 6.7 per cent are living in rented houses.

Table 5.42

Nature of tenancy

Nature	Frequency	Percent
Rented	20	6.7
Own	280	93.3
Total	300	100.0

Source: Field Survey Data

Table 5.43 represents the status of land on which the house is built. About 1.7 per cent of respondents built their houses on the basis of Vikasana Pathrika, 4.7 per cent, on the Pattayabhoomi, 63.6 per cent have purchased land for the purpose

of building houses, about 28 per cent, in Purambokku land, and 2 per cent on inherited land for the construction of the house. Land alienation is one of the crucial problems in the study area. Large areas of land are alienated by non-tribals.

Table 5.43

Status of land on which the house is built

Status	Frequency	Percent
Vikasana Pathrika	5	1.7
Pattayabhoomi	14	4.7
Purchased	191	63.6
Purambokku	84	28.0
Inherited land	6	2.0
Total	300	100.0

Source: Field Survey Data

Table 5.44 shows the size of the area of land on which the houses are built and it shows that 93.7 per cent have less than 5 cents of land per family.

Table 5.44

Area of land on which the house is built

Area	Frequency	Percent
Less than 5 cents	281	93.7
5 – 10 cents	15	5.0
10 – 25 cents	3	1.0
50 cents and above	1	0.3
Total	300	100.0

Source: Field Survey Data

Table 5.45 shows the value of their houses. As per the opinion of 73.7 per cent of respondents their houses have value between 10000-20000 rupees. About 6.7 per cent of respondents responded that their houses have no monetary value. Almost 19.3 per cent opined that their houses have value below Rs.10000. And 1.3 per cent has opined that, their houses are worth between 20000-30000 Rupees.

Table 5.45
Value of the house

Value	Frequency	Percent
No value	20	6.7
Below 10000	58	19.3
10000 – 20000	218	73.7
Above 20000	4	1.3
Total	300	100.0

Source: Field Survey Data

Table 5.46 provides information regarding the physical assets. About 72.7 per cent of the respondents do not have any private land and 23.7 per cent have 0-1 acre of private land. Only 3.6 per cent of the respondents opined that they have above one acre of private land. Between 2.1-4.0 acres of private land is owned by 0.3 per cent of the tribal families. No respondent possesses above 10 acres. Majority of the respondents (95%) do not possess any piece of forest land. About 2 per cent have 1.1-2 acres of forest land and one per cent have 4.1-10 acres of forest land. At least 0.3 per cent of the respondents possess above 10 acres of forest land.

Table 5.46
Physical Asset

Land holding	Private land		Forest Land	
	Frequency	Percent	Frequency	Percent
Nil	218	72.7	285	95.0
0.1 – 1.0 acres	71	23.7	4	1.3
1.1 – 2.0 acres	9	3.0	6	2.0
2.1 – 4.0 acres	1	0.3	1	0.3
4.1 – 10.0 acres	1	0.3	3	1.0
Above 10.0 acres			1	0.3
Total	300	100.0	300	100.0

Source: Field Survey Data

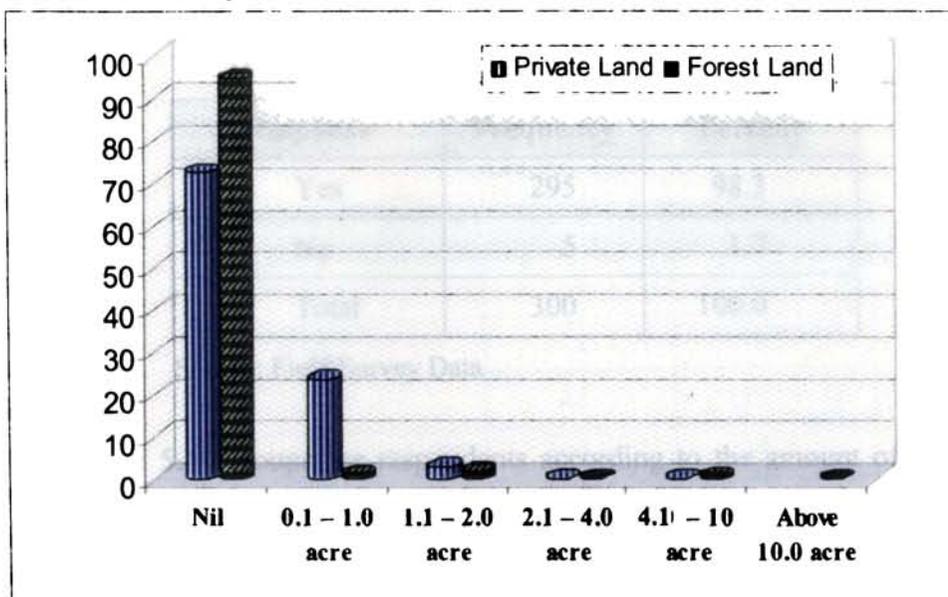


Figure 5.6. Figure showing the Physical Assets of the respondents

Table 5.47 gives a clear picture of electrification of the tribal households. Only 14 per cent have electricity in their houses and the remaining 86 per cent do not have electricity. The possibility for electrification is very far in the case of houses located in the interior areas.

Table 5.47
Electrification of house

Electrified	Frequency	Percent
Yes	42	14.0
No	258	86.0
Total	300	100.0

Source: Field Survey Data

5.7. Debts and savings

Table 5.48 gives some idea about the depth of debt of the tribal families. Almost all the tribal families (98.5%) are in debt. The main problem in regard to the debt is that they do not have any source of income for paying off the debt.

Table 5.48**Response about their debt**

Response	Frequency	Percent
Yes	295	98.3
No	5	1.7
Total	300	100.0

Source: Field Survey Data

Table 5.49 groups the respondents according to the amount of debt. The table shows that among those who are in debt, about 50 per cent have debt in between Rs.2500-5000. Below 6 per cent have debt more than Rs.5000. The remaining 44 per cent have debt less than Rs.2500.

Table 5.49.**Classification according to amount of debt**

Amount	Frequency	Percent
500- 1000	24	8.1
1001-2500	108	36.6
2501 - 5000	147	49.8
5001 - 10000	12	4.1
Above 10000	4	1.4
Total	295	100.0

Source: Field Survey Data

Table 5.50 shows the percentage of interest the respondents pay on debt. About 13.9 per cent of respondents are paying interest at the rate of 12 per cent and 67.1 per cent, 20 per cent. About 0.7 percent pays interest at 10 per cent and 0.3 per cent, at 4 per cent. About 18 per cent of respondents are paying no interest for the debt they have.

Table 5.50
Interest on debt

Interest	Frequency	Percent
4	1	0.3
10	2	0.7
12	41	13.9
20	198	67.1
No Interest	53	18.0
Total	295	100.0

Source: Field Survey Data

Table 5.51 gives an idea about the purpose for which money was borrowed. Of the total, 50.6 per cent of the respondents have borrowed money for household expenses and 40 per cent for building houses. About 6.1 per cent for the purpose of meeting medical expenses, 3.4 per cent, for meeting marriage expenses.

Table 5.51
Purpose of money borrowed

Response	Frequency	Percent
For house hold expense	149	50.6
For meeting medical expenses	18	6.1
For meeting marriage expense	10	3.4
For building house	118	40.0
Total	295	100.0

Source: Field Survey Data

The sources of borrowing are given in Table 5.52. The table shows that 18.3 per cent have borrowed money from their relatives. 12.5 per cent, from the non-tribals, 66.4 per cent, from the money lenders and 2.7 per cent, from middle men.

Table 5.52**Response about from whom they borrow**

Response	Frequency	Percent
Relatives	54	18.3
Non-tribals	37	12.5
Money lenders	196	66.4
Middle men	8	2.7
Total	295	100.0

Source: Field Survey Data

Mode of repayment of loan is given in Table 5.53 and it shows that 97.3 per cent is repaying their loan in cash itself. About 2 per cent opined that they repay the amount by leasing land to the non-tribals. Some respondents (0.7%) revealed that they repay by further borrowing.

Table 5.53**Mode of Repayment**

Mode	Frequency	Percent
In cash	287	97.3
By leasing the land to non tribal	6	2.0
By further borrowing	2	0.7
Total	298	100.0

Source: Field Survey Data

Table 5.54

Response about saving

Response	Frequency	Percent
Yes	10	3.3
No	281	96.7
Total	298	100.0

Source: Field Survey Data

Table 5.54 reveals the information regarding the savings of the respondents. About 3.3 per cent informed that they used to save the money, two respondents stated that their annual saving comes to Rs. 5000. Another two stated that their annual saving range between Rs. 2000-3000. This reveals that only 3.3 per cent have saving and the rest, saves nothing.

5.8. Employment

Employment pattern of the respondents is explained in the following section. Table 5.55 presents information regarding the number of days of hired employment in a week. About 11 per cent of the respondents from Agali, 38 per cent from Pudhur and 37 per cent from Sholayoor reported that they used to get one day's labour per week. Similarly 44 percent from Agali, 54 per cent from Pudhur and 57 per cent from Sholayoor secure two day's of paid labour per week. The total number of respondents from all these three panchayaths is 155. About 37 per cent of the respondents from Agali, five per cent from Pudhur and six per cent from Sholayoor get three days of paid labour per week. About four per cent of respondents in Agali, three percent from Pudhur get four days of paid labour in a week. Only three per cent of the respondents get five days of paid labour in a week. One per cent of the respondents from Agali panchayath get six days of paid labour in a week.

Above 90 percent of the respondents in Pudhur and Sholayoor panchayaths get only one to two days of paid job. But in Agali area about 45 per cent of the respondents get three or more than three days of paid labour. This indicates that opportunity for paid labour is higher in Agali compared to the other two areas

Table 5.55.

Number of days employed as hired labour in a week

No. of days	Agali	Pudhur	Sholayoor	Grand Total
1	11	38	37	86
2	44	54	57	155
3	37	5	6	48
4	4	3		7
5	3			3
6	1			1
Grand Total	100	100	100	300

Source: Field Survey Data

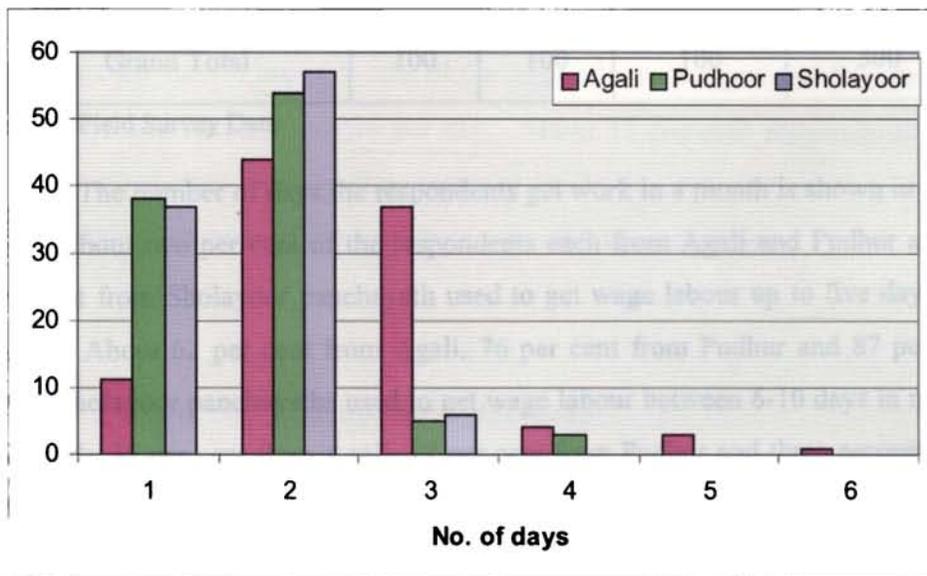


Figure 5.7. Percentage of respondents engaged in different number of days in three tribal areas

Table 5.56 present information regarding the number of male members going for work in other villages. No male members from among 41 per cent of the respondents from Agali panchayath, 39 per cent from Pudhur panchayath and 32 per cent from Sholayoor panchayath go for work in other villages. On male

members from among 48 per cent of respondents from Agali panchayath, 43 per cent from Pudhur Panchayath and 62 per cent from Sholayoor panchayath go for employment in other villages. Two male members from among 11 per cent of respondents in Agali, 17 per cent in Pudhur and 6 percent in Sholayoor panchayath go for employment in other villages. Three male members from among one per cent of the respondents from Pudhur go to other villages for employment.

Table 5.56.

Number of male members goes for employment in other villages.

Number of male members	Agali	Pudhur	Sholayoor	Grand Total
0	41	39	32	112
1	48	43	62	153
2	11	17	6	34
3		1		1
Grand Total	100	100	100	300

Source: Field Survey Data

The number of days the respondents get work in a month is shown in Table 5.57. About two per cent of the respondents each from Agali and Pudhur and 10 per cent from Sholayoor panchayath used to get wage labour up to five days in a month. About 62 per cent from Agali, 76 per cent from Pudhur and 87 per cent from Sholayoor panchayaths used to get wage labour between 6-10 days in month. Similarly 32 per cent from Agali, 17 per cent from Pudhur and three percent from Sholayoor panchayath got employment for 11-15 days in a month. About three per cent of respondents from Agali and 5 per cent from Pudhur got employment between 15-20 days in a month. Only one respondent from Agali has received more than 20 days, of paid labour in a month. The results also indicate that the respondents from Agali area have got more opportunities for paid labour than those of the other two areas.

Table 5.57.**Number of days in a month they get work**

Number of days	Agali	Pudhur	Sholayoor	Grand Total
1-5	2	2	10	14
6-10	62	76	87	225
11-15	32	17	3	52
16-20	3	5		8
Above 20	1			1
Total	100	100	100	300

Source: Field Survey Data

Table 5.58 shows the responses of the respondents about the wages they received from paid jobs. About one per cent of the respondents from Agali and 10 per cent from Pudhur receive Rs.30 as wage. About 85 per cent of respondents from Agali, 85 per cent from Pudhur and 100 per cent from Sholayoor received Rs.50 as wage per day. Three per cent of the respondents in Agali and five per cent in Pudhur received Rs.60 as wages per day. About 11 per cent respondents from Agali and one per cent from Pudhur received Rs.80 per day as their wages. The only problem they encountered in employment is the low wage rate

Table 5.58.**Wages per day received**

Wages per day	Agali	Pudhur	Sholayoor	Grand Total
30	1	10		11
50	85	84	100	269
60	3	5		8
80	11	1		12
Grand Total	100	100	100	300

Source: Field Survey Data

Table 5.59 indicates the responses about the number of the respondents going for forage in different panchayaths. About 17 per cent of respondents from Agali panchayath and three percent of the respondents from Pudhur Panchayath go for forage. Majority of the respondents, i.e. 83 per cent in Agali panchayath, 97 per cent in Pudhur panchayath and 100 per cent in Sholayoor panchayath do not go for foraging.

Table 5.59.

Number of respondents goes for foraging in different panchayaths

Foraging	Agali	Pudhur	Sholayoor	Grand Total
Yes	17	3		20
No	83	97	100	280
Grand Total	100	100	100	300

Source: Field Survey Data

Land available for agricultural purpose is shown in Table 5.60. The respondents who have less than 25 cents of land are two per cent in Agali, and one percent in Pudhur panchayath. About 5 percent in Agali, 7 per cent in Pudhur and 30 per cent in Sholayoor possesses 25 cents of land. Seven per cent in Agali, 11 per cent in Pudhur and one per cent in Sholayoor panchayath have 50 cents of land. About 50 per cent of respondents in Agali, 11 per cent in Pudhur and eight per cent in Sholayoor have 100 cents of lands. Fifteen per cent in Agali, about 13 per cent in Pudhur panchayath and two per in Sholayoor panchayath have 150 cents of land. Three per cent of respondents in Agali panchayath, 40 per cent in Pudhur panchayath and two per cent in Sholayoor panchayath have 200 cents of land. Eighteen per cent of respondents in Agali panchayath, about four per cent in Pudhur panchayath and 33 per cent in Sholayoor panchayath have 400 cents or more land.

Table 5.60.**Land available for agricultural purpose**

Land available (cents)	Agali	Pudhur	Sholayoor	Grand Total
Less than 25	2	1		3
25	5	7	30	42
50	7	11	1	19
100	50	24	8	82
150	15	13	26	54
200	3	40	2	45
400 and Above	18	4	33	55
Grand Total	100	100	100	300

Source: Field Survey Data

Major crops cultivated in Agali Panchayath are Cholan, Chana, Ragi, Chama, Thuvara, Chilly, Tomato, Horse gram, Kora, mustard. Major crops cultivated in Pudhur Panchayath are Chama, Kora, Ragi, Chilly, Cholan, Chana, Thuvara, Tomato, Horse gram, mustard and Tapioca. Major crops cultivated in Sholayoor Panchayath are Ragi, Chama, Thuvara, Kora, Chana.

Number of the respondents engaged in works connected with animal husbandry in different panchayaths is shown in Table 5.61. About 19 per cent of respondents from Agali panchayath, 29 per cent from Pudhur panchayath and one percent from the Sholayoor panchayath go for rearing of animals. The types of cattle reared are cows, goats and buffalos. Ox is rarely seen. Among Poultry, only hen is reared.

Table 5.61.**Number of respondents going for animal husbandry in different panchayaths**

Animal Husbandry	Agali	Pudhur	Sholayoor	Grand Total
Yes	19	29	1	45
No	81	71	99	251
Grand Total	100	100	100	300

Source: Field Survey Data

Membership of the respondents in different tribal organizations is shown in Table 5.62. Only 12 per cent of respondents from Agali and five per cent of respondents from Sholayoor panchayath have membership in tribal organizations. About 6 per cent of the total respondents have membership in tribal organizations. No respondent from Sholayoor Panchayath has membership in any Tribal organization.

Table 5.62.

Membership in any tribal organisation

Response	Agali	Pudhur	Sholayoor	Grand Total
Yes	12	5		17
No	88	95	100	283
Grand Total	100	100	100	300

Source: Field Survey Data

Table 5.63 shows the extent of unemployment in the respondents villages. About 98 per cent of respondents from Agali, 98 per cent from Pudhur and 89 per cent from Sholayoor panchayaths face serious unemployment in their hamlet. Only two per cent of the respondents from Agali, two per cent from Pudhur and 11 per cent from Sholayoor panchayath do not have unemployment in their hamlets.

Table 5.63.

Unemployment in their village

Response	Agali	Pudhur	Sholayoor	Grand Total
Yes	98	98	89	285
No	2	2	11	15
Grand Total	100	100	100	300

Source: Field Survey Data

Table 5.64 shows the responses about the sources of support during the period of unemployment. About 4 per cent of respondents from Agali, 11 per cent from Pudhur panchayath and six per cent from Sholayoor panchayath get support from their parents during the period of unemployment. Twenty per cent in Agali,

five per cent in Pudhur and 23 per cent in Sholayoor panchayaths get support from their guardians.

Table 5.64.
Source of support during the period of unemployment

Supporting Person	Agali	Pudhur	Sholayoor	Grand Total
Parents	4	11	6	21
Guardians	20	5	23	48
Income from Property	12	10	20	42
Others	39	59	38	136
No help	25	15	13	53
Grand Total	100	100	100	300

Source: Field Survey Data

About 12 per cent in Agali panchayath, 10 per cent in Pudhur panchayath and 20 per cent in Sholayoor panchayath get support from property income during the period of unemployment. Thirty nine per cent in Agali, 59 per cent in Pudhur, and 38 per cent from Sholayoor panchayath get support from others. Some respondents do not receive any help. Twenty five percent of the respondents in Agali, 15 per cent in Pudhur and 13 per cent in Sholayoor panchayath belong to this category. Most important source of household income is wage labour.

Number of women in labour force among the respondents is shown in Table 5.65. In Agali, 79 per cent of the respondents have one member in their family in labour force, about 69 per cent in Pudhur panchayath and 64 per cent in Sholayoor panchayath also have one member in their families as wage labour. About 17 per cent of the respondents from Agali panchayath, 25 per cent from Pudhur panchayath and the rest 26 per cent from Sholayoor panchayath have two women in labour force in their families. About four percent of the respondents from Agali, six per cent from Pudhur and 10 per cent from Sholayoor panchayath have three women in labour in their families.

Table 5.65.**Number of women in Labour force in their household**

Number	Agali	Pudhur	Sholayoor	Grand Total
1	79	69	64	212
2	17	25	26	68
3	4	6	10	20
Grand Total	100	100	100	300

The responses about the number of adult men in the labour force are shown in Table 5.66. In Agali panchayath 75 per cent of respondents have one male adult member in the family who go for wage labour, in Agali 17 per cent of the respondents have two adult male members in labour force. In Pudhur about 81 per cent have one adult member in labour force. But in Sholayoor 64 per cent have two adult members in labour force.

Table 5.66.**Number of adult men in labour force**

Number	Agali	Pudhur	Sholayoor	Grand Total
1	75	81	31	187
2	17	11	64	92
3	7	7	4	18
6	1	1	1	3
Grand Total	100	100	100	300

Source: Field Survey Data

Number of dependents in the household is shown in Table 5.67. In Agali panchayath 16 per cent of the respondents have one dependent, about 39 per cent have two dependents, 40 per cent have three dependents and 5 per cent have four or five dependents in their families. In Pudhur panchayath 12 per cent of respondents have one dependent, 34 per cent have two dependents, 44 per cent have three dependents, 9 per cent have four dependents and one per cent has six dependents in their families. In Sholayoor panchayath 12 per cent of the respondents have one

dependent, 59 per cent have two dependents, 19 per cent have three dependents and 10 per cent have six dependents in their households.

Table 5.67.

Number of dependents in the household

Number	Agali	Pudhur	Sholayoor	Grand Total
1	16	12	12	40
2	39	34	59	132
3	40	44	19	103
4	4	9	10	23
5	1			1
6		1		1
Grand Total	100	100	100	300

Source: Field Survey Data

Table 5.68 exhibits the details of the responses of the respondents in case if they get fertile land. About 54 per cent of the respondents in Agali panchayath, 45 per cent in the Pudhur panchayath and 43 per cent in the Sholayoor panchayath will cultivate if they get land. The rest will not cultivate even if they get land.

Table 5.68.

Response about cultivation if they get fertile land

Response	Agali	Pudhur	Sholayoor	Grand Total
Yes	54	45	43	142
No	46	55	57	158
Grand Total	100	100	100	300

Source: Field Survey Data

Table 5.69 shows the reasons for not cultivating if they get fertile land. Four per cent of the respondents in Agali panchayath, five per cent from the Pudhur panchayath and two percent from the Sholayoor panchayaths revealed that their employers will not permit them to cultivate. Eight per cent of respondents in Agali have fear of losing the land. Thirteen per cent of the respondents in Pudhur and four per cent in Sholayoor panchayaths also said the same thing. Thirty per cent of

the respondents in Agali panchayath, 25 per cent in Pudhur and five per cent in Sholayoor cited lack of irrigation facilities as the reason for not engaging in cultivation. About 58 per cent of respondents in Agali, 57 per cent in Pudhur and 89 per cent in Sholayoor have some other reasons for not cultivating even if they get fertile land.

Table 5.69.

Reasons for not cultivating if they get fertile land

Reason	Agali	Pudhur	Sholayoor	Grand Total
Employer will not permit	4	5	2	11
Fear of loss	8	13	4	25
Lack of irrigation facilities	30	25	5	60
Other reasons	58	57	89	204
Grand Total	100	100	100	300

Source: Field Survey Data.

Opinion about the knowledge of the respondents in cultivating different types of agricultural crops is indicated in Table 5.70. About 95 per cent of respondents in Agali panchayath 96 per cent in Pudhur panchayath and 79 per cent in Sholayoor panchayath have knowledge of cultivating different types of agricultural crops. About five per cent of the respondents in Agali panchayath, four per cent in Pudhur panchayath and 21 per cent in Sholayoor panchayath do not have any knowledge about cultivating any agricultural crops.

Table 5.70.

Opinion about the knowledge of cultivating different types of agricultural crops in the land

Response	Agali	Pudhur	Sholayoor	Grand Total
Yes	95	96	79	270
No	5	4	21	30
Grand Total	100	100	100	300

Source: Field Survey Data

Table 5.71 shows details about ownership of land their families had at any time. About 56 percent of the respondents in Agali, 61 per cent in Pudhur and 47 per cent in Sholayoor were owners of land in earlier days. They had vast area of cultivable land and they utilized that for different purposes. Some sections of the population were not the owners of the land at any time. Forty four per cent of respondents in Agali panchayath, 39 per cent in Pudhur panchayath, and 53 per cent in Sholayoor panchayath did not own any land.

Table 5.71.

Opinion about if their family have been an ownership of land in the past

Response	Agali	Pudhur	Sholayoor	Grand Total
Yes	56	61	47	164
No	44	39	53	136
Grand Total	100	100	100	300

Source: Field Survey Data

Table 5.72 illustrates the reasons for loss of their land. Sixteen per cent each of the respondents in Agali and Pudhur and 50 per cent in Sholayoor panchayath lost their land due to bondedness. Non-repayment of loan is the reason for loss of land for 29 per cent of respondents in Agali, eight per cent in Pudhur panchayath and 20 per cent in Sholayoor panchayaths. About 48 per cent of the respondents in Agali, 45 per cent in Pudhur and 18 per cent in Sholayoor panchayath lost their land due to poverty and family disputes. Four per cent of the respondents in Agali panchayath, 11 per cent in Pudhur panchayath and four per cent in Sholayoor panchayath lost their land as that was acquired by Forest Department. Three per cent of the respondents in Agali panchayath, 20 per cent in Pudhur panchayath and eight per cent in Sholayoor lost their land due to other reasons.

Table 5.72.**Reasons for loss of land**

Reason	Agali	Pudhur	Sholayoor	Grand Total
Bondedness	16	16	50	82
Non-repayment of loan	29	8	20	57
Poverty/family disputes	48	45	18	111
Acquired for forest project	4	11	4	19
Any Other	3	20	8	31
Grand Total	100	100	100	300

Source: Field Survey Data

Table 5.73 shows the details about who got the tribals land. Nine per cent of tribal households in Agali panchayath, seven per cent in Pudhur panchayath and three percent in Sholayoor panchayath went to money lenders. About 15 per cent of land in Agali, 19 per cent in Pudhur panchayath and six per cent in Sholayoor panchayath went to their masters. Seventeen per cent of the lost land in Agali, about 20 per cent in Pudhur panchayath and three per cent in Sholayoor panchayath went to relatives. Four per cent of land in Agali, 5 per cent in Pudhur and three per cent in Sholayoor were acquired by Government. Fifty five per cent of the lost land in Agali, 49 per cent in Pudhur panchayath and 85 per cent in Sholayoor Panchayath went to the hands of non-tribals.

Table 5.73.**To whom the land was lost**

Response	Agali	Pudhur	Sholayoor	Grand Total
Money lenders	9	7	3	19
Master	15	19	6	40
Relatives	17	20	3	40
Government	4	5	3	12
Non-tribals	55	49	85	189
Grand Total	100	100	100	300

Source: Field Survey Data.

5.9. Expenditure

Expenditure pattern of the respondents on different items are explained in this section. Average annual expenditure on different items and their percentage to total of all the respondents are given in Table 5.74.

Table 5.74.
Average expenditure of all the respondents on the items specified

Items	Mean	Standard Deviation	Percentage to total
Food	7323.60	1846.90	61.15
Fuel and lighting	261.44	87.19	2.18
Clothing	719.87	146.50	6.01
Education	127.83	83.11	1.07
Medicine	171.33	89.97	1.43
Repair of House	60.55	70.40	0.51
Total on Household items	8665.45	1956.65	72.35
Ceremony	728.58	191.90	6.08
Marriage	775.60	222.14	6.48
Festival	746.17	218.68	6.23
Other expenses on religious and cultural activities	767.56	221.84	6.41
Total expenses on religious and cultural activities	3017.91	644.38	25.20
Personal expenses	293.10	96.40	2.45
Total	11976.46	2174.80	100

Source: Field Survey Data

Major items of expenditure (61%) of the tribal are food. Average annual expenditure on food item comes to Rs. 7323.60. On an average Rs. 3017.91 is spent on religious and cultural activities. It account for 25.20 per cent of the total

expenses. Expenditure on education, medicine and repair of house account only 3 per cent of the total expenses. About 6 per cent of total expenses were spent on clothing, cultural ceremony, marriage functions and festivals. Only 2.45 per cent is spent on personal expenses.

Table 5.75.

Average expenditure on each item of expenditure among the respondents in three Panchayaths

Items	Agali		Pudhur		Sholayoor	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Food	7495.20	1796.27	7423.20	2384.56	7052.40	1129.29
Fuel and lighting	281.28	94.42	279.84	91.29	223.20	59.11
Clothing	723.50	127.02	728.30	169.78	707.80	140.11
Education	125.74	86.03	120.65	68.56	137.09	92.82
Medicine	166.95	94.91	169.55	96.56	177.50	77.81
Repair of House	58.35	69.10	57.90	75.20	65.40	67.11
Total on House hold items	8852.52	1892.17	8780.44	2534.81	8363.39	1190.07
Ceremony	720.00	165.45	718.75	233.99	747.00	169.05
Marriage	771.00	187.11	786.80	258.12	769.00	217.28
Festival	739.00	212.44	755.00	215.15	744.50	229.94
Other expenses on religious and cultural activities	778.32	153.20	760.55	327.58	763.80	132.93
Total expenses on religious and cultural activities	3008.32	517.53	3021.10	798.68	3024.30	590.06
Personal expenses	288.00	64.79	288.50	86.41	302.80	127.51
Total	12148.84	2165.91	12090.04	2756.77	11690.49	1366.82

Source: Field Survey Data

Table 5.75 presents the average annual expenditure incurred on each item by the respondents in three Panchayaths. Expenditure pattern of the three tribal groups is more or less the same. In all these cases major items of expenditure is food. Expenses on religious and cultural activities come second. Percentage of expenditure to total expenditure on each item is given in Table 5.76.

Table 5.76.

Percentage of expenditure on each item to total in three tribal areas

Items	Agali	Pudhur	Sholayoor
Food	61.69	61.40	60.33
Fuel and lighting	2.32	2.31	1.91
Clothing	5.96	6.02	6.05
Education	1.03	1.00	1.17
Medicine	1.37	1.40	1.52
Repair of House	0.48	0.48	0.56
Total on House hold items	72.87	72.63	71.54
Ceremony	5.93	5.94	6.39
Marriage	6.35	6.51	6.58
Festival	6.08	6.24	6.37
Other expenses on religious and cultural activities	6.41	6.29	6.53
Total expenses on religious and cultural activities	24.76	24.99	25.87
Personal expenses	2.37	2.39	2.59
Total	100	100	100

Source: Field Survey Data

Table 5.76 shows that the three tribal groups spend only very little for repair of their houses. More than 70 per cent of the total expenses are incurred on food and 25 percent on cultural and religious activities. Around 2.5 per cent is incurred for personal expenses.

Table 5.77.

Results of ANOVA of Household items

Items	Source	df	Sum of Squares	Mean Square	F
Food	Between Groups	2	11291616.00	5645808.00	1.662 ^{ns}
	Within Groups	297	1008613296.00	3396004.36	
	Total	299	1019904912.00		
Fuel and light	Between Groups	2	219448.32	109724.16	15.870**
	Within Groups	297	2053497.60	6914.13	
	Total	299	2272945.92		
Clothing	Between Groups	2	22992.667	11496.33	0.534 ^{ns}
	Within Groups	297	6394402.00	21529.97	
	Total	299	6417394.67		
Education	Between Groups	2	14166.81	7083.40	1.026 ^{ns}
	Within Groups	297	2050890.18	6905.35	
	Total	299	2065056.99		
Medicine	Between Groups	2	6042.17	3021.08	0.372 ^{ns}
	Within Groups	297	2414274.50	8128.87	
	Total	299	2420316.67		

Source: Field Survey Data

** Significant at 1 % level

ns Non significant

Analysis of variance was done for comparing the expenditure on each item of the three tribal groups. Significant difference was found only in the case of expenditure on fuel and light. In the case of all other items, F values were found to be non significant indicating that there is no significant difference in the expenditure on that item among the three tribal groups.

As the expenditure on fuel and lighting is significantly different among the three groups, mean expenditure on this item was compared using least significant difference test. Results indicate that expenditure on fuel and lighting was significantly lower in the case of tribals in Sholayoor (223.20) area than that in

Agali (281.28) and Pudhur (279.84). This indicates that the tribals in Sholayoor Panchayath spend fewer amounts for fuel and light and depend more on forest for that than the tribals in Agali and Pudhur Panchayaths.

Table 5.78.

Results of ANOVA of expenses on religious and cultural activities

Ceremony	Between Groups	2	50954.17	25477.08	0.690 ^{ns}
	Within Groups	297	10959568.75	36900.91	
	Total	299	11010522.92		
Marriage expenses	Between Groups	2	19016.00	9508.00	0.192 ^{ns}
	Within Groups	297	14735776.00	49615.41	
	Total	299	14754792.00		
Festival Expenses	Between Groups	2	13216.67	6608.33	0.137 ^{ns}
	Within Groups	297	14284875.00	48097.22	
	Total	299	14298091.67		
Others	Between Groups	2	17905.53	8952.76	0.181 ^{ns}
	Within Groups	297	14696452.51	49483.01	
	Total	299	14714358.04		

Source: Field Survey Data

Analysis of variance was also done for comparing the expenditure on religious and cultural activities of the three tribal groups. Results of this analysis are given in Table 5.78. In all the cases F value was found to be non-significant indicating that expenditure on ceremony, marriage functions, festivals and other expenses on cultural and religious activities are more or less the same among the three groups. All are giving equal importance to these items.

Table 5.79.**Results of ANOVA of expenses on personal expenses**

Source	df	Sum of Squares	Mean Square	F
Between Groups	2	14126.00	7063.00	0.759 ^{ns}
Within Groups	297	2764491.00	9308.05	
Total	299	2778617.00		

Source: Field Survey Data

Table 5.79 shows the results of ANOVA of personal expenses. Here also F-value was found to be non-significant indicating the homogeneity in the personal expenses among the three groups.

Correlation between total expenditure to each component of expenditure

Correlation of component expenditure on each item to total expenditure is worked out for combined data set and also for Agali, Pudhur and Sholayoor Panchayaths separately and the results are given in Tables 5.80 to 5.83 respectively.

Table 5.80.**Correlation of expenditure of each component item on total expenditure of all data**

Items	Correlation
Food	0.932**
Fuel and lighting	0.248**
Clothing	0.389**
Education	0.122*
Medicine	0.383**
Repair of House	0.208**
Ceremony	0.351**
Marriage	0.353**
Festival	0.321**
Other expenses on religious and cultural activities	0.335**
Personal expenses	0.264**

** Significant at 1 % level

Correlation of expenditure of each component item to total expenditure is given in Table 5.80 for the entire data. Here all correlations are found to be significant. Higher correlation is found in the case of expenditure on food items (0.932). This implies that expenditure on food item and total expenditure is highly correlated.

Table 5.81.

Correlation of expenditure of each component item on total expenditure of tribals in Agali Panchayath

Items	Correlation
Food	0.954**
Fuel and lighting	0.212*
Clothing	0.338**
Education	0.234*
Medicine	0.389**
Repair of House	0.056ns
Ceremony	0.379**
Marriage	0.477**
Festival	0.393**
Other expenses on religious and cultural activities	0.386**
Personal expenses	0.494**

* Significant at 5 % level

** Significant at 1 % level

ns Non significant

Table 5.81 provides information regarding Correlation of expenditure of each item on total expenditure of tribals in Agali Panchayath shows that all items except expenditure on repair of house are found to be significant. Food item has higher correlation (0.954) followed by personal expenses (0.494) and marriage expenses (0.477). This shows that the major influencing expenditure on total expenditure is food, personal expenses and marriage expenses.

Table 5.82.

Correlation of expenditure of each component item on total expenditure of tribals in Pudhur Panchayath

Items	Correlation
Food	0.937**
Fuel and lighting	0.266**
Clothing	0.482**
Education	0.104ns
Medicine	0.430**
Repair of House	0.367**
Ceremony	0.335**
Marriage	0.258*
Festival	0.275**
Other expenses on religious and cultural activities	0.336**
Personal expenses	0.301**

* Significant at 5 % level

** Significant at 1 % level

ns Non significant

Table 5.82 shows Correlation of expenditure of each component item on total expenditure of tribals in Pudhur Panchayath. Among the tribals in Pudhur Panchayath, the expenditure on education has no correlation with total expenditure. Food item has higher correlation (0.937) followed by clothing (0.482). This shows that the major influencing expenditure on total expenditure is food, and clothing.

Table 5.83.

Correlation of expenditure of each component item on total expenditure of tribals in Sholayoor Panchayath

Items	Correlation
Food	0.848**
Fuel and lighting	0.188ns
Clothing	0.265**
Education	0.056ns
Medicine	0.326**
Repair of House	0.154ns
Ceremony	0.430**
Marriage	0.458**
Festival	0.372**
Other expenses on religious and cultural activities	0.305**
Personal expenses	0.174ns

* Significant at 5 % level

** Significant at 1 % level

ns Non significant.

Table 5.83 shows Correlation of expenditure of each component item on total expenditure of tribals in Sholayoor Panchayath. Correlation among Sholayoor Panchayath shows that the expenditure on education, fuel and lighting, repair of house and personal expenses has no significant correlation with their total expenditure. This implies that tribals in Sholayoor Panchayath give less preference to education, fuel and lighting, repair of house and personal expenses.

Tribals in the three Panchayaths give major importance to food. Hence the expenditure on food item is more correlated with total expenditure and it accounts for three fourth of the total expenditure.

Chapter 6

Deforestation in Attappady

DEFORESTATION IN ATTAPPADY

Attappady was dense with vast areas of green forest. The north-western part of Attappady was declared as Reserve Forest with the assumption of power by the British in Malabar, the rest of the area remained with the Jenmis as private forests. There was no exploitation during the early periods, either by the Jenmis or the British. In the reserved areas the tribals continued to enjoy full freedom, the British placing no restriction on their movement in the forests and the pursuit of their economic activities which were least detrimental to the forests. The forests of Attappady were first disturbed in 1932 through clear felling to make way for plantation in its south eastern portion followed by this. Nearly 300 hectares of forests were clear felled and planted with teak. Later the British felled timber to meet the requirements of railway sleepers and support the plywood industries.

However, with the influx of settlers the process of deforestation in Attappady became extensive. The new form of cultivation brought by Tamilians and Malayalis required forest clearance, and the process of deforestation got accelerated. Cultivation of deep-rooted crops like ramacham or vetiver and theruva or lemon grass, which are still in practice, led to the erosion of top soil. For extraction of oil from these crops huge quantities of firewood were required. Firewood was obtained freely by cutting trees from the forest areas. Settlers from Travancore helped the timber trade of the rich early settlers in return for a piece of land to cultivate. During the early 1950s even high quality timber species were used by settlers as firewood. Lack of security of ownership, low value of timber, poor resources bases, etc, were factors which accentuated the process.

Deforestation accelerated during the second half of the sixties when the feudal landlords became certain that they would lose their land due to impending land reform measures. They stopped looking after their forests and worked increasingly to creating fictitious tenancies (Vijayanand 1996). Large areas of forested land were given to timber traders at throw away prices. 'Something is better than nothing' was what the Jenmis had in mind. When the reforms began to be implemented, 10 to 15 truck loads of timber passed through the Mukkali

Junction each day. The truck number, the type of timber, and the time and date were recorded in register every day. The truck number, the type of timber, and the time and date were to be recorded in the register kept by the Moopil Sthanam. Large plots of land were given by Jenmis liberally to their relatives for removal of tress. Private forests were vested with the Government in 1971, through the Kerala Forests Vesting and Assignments Act. This was a severe setback to Jenmis and all those who were engaged in tree cutting in the leased lands. The High Court of Kerala struck down the order on 21st May 1972. After a long legal battle, the Supreme Court of India approved the legislation on 19th August 1973. The interim period of one year and four months was legal vacuum, during which massive, organized forest plunder was carried out in the greenest parts of Attappady, except the reserve areas, were totally vanished by the mid 1970s (Nair 1986). Forest area which constituted 82 per cent of the total geographical area of Attappady, even as late as 1959, was reduced to a mere 28 per cent in 1971 (Kunhaman 1981) Whatever trees remained in the private land were used up by the settlers in later stages. After the plundering of the forest of Attappady, severe practice of different types of cultivation was practised and this destroyed the forest regions.

6.1. Emerging Cultivation

The types of cultivation brought into Attappady by Tamilians and Malayalis were highly unfriendly to the forest environment. They were not concerned about the ecological nature of the area. In their struggle to hold on their land and build up their resources base they put all their energy into their land indiscriminately and regardless of its environmental consequences. Tamil cultivation was very harsh without giving any importance to the ecology. Tamil settlers who cultivated dry crops never allowed even a single tree to remain in their plot. Continuous ploughing and weak terracing resulted in top soil erosion on an extensive scale. Malayali settlers, on other hand, practiced ramcham or vetiever and theruva or lemon grass cultivation in the early period and tapioca at a later stage. These two crops, which give immediate income, are not suitable to sloppy lands unless protected by strong soil conservation measures. Thus the new cultivation practices, along with deforestation, intensified the process of deterioration of the fertile lands of Attappady.

6.2. Tribal Cultivation

The type of cultivation practised by the tribals is shifting cultivation. In the past, they had enormous areas of forest land for practising the cultivation. They are experts in shifting cultivation. Tribals themselves were also partly responsible for the degradation of the resource base of Attappady. Shifting cultivation practices, though technologically suitable for forest eco-system, have intensified in recent year as the per capita land availability has diminished. When Kurumba land was re-surveyed and reallocation was made in 1985, there were 847 persons in the community. The land allotted to them for cultivation was as low as 294 hectares. The per capita land availability came down to 0.35 hectars. Along with the intensified use of the available land, they unauthorizedly cleared interior forests for cultivation

The extensive shift of Irulas and Mudugas towards settler type cultivation, mainly for want of money, has created extensive patches of denudation near their hamlets and fragile upper reaches. In these areas tribals began practicing cultivation of crops like tapioca and cotton, quite unsuitable to the areas. For many years the settlers have exploited the ignorance and illiteracy of tribals and plundered their resource. Instead of learning from this bitter experience, they do still seek help in cash and kind from the exploiters, thus aiding and abetting the destructive process even further.

6.3. Cropping Pattern: The Current Scenario

As a consequence of this shift in cultivation innumerable number of crops, annual seasonal and perennial have found their place in Attappady. We broadly divide the land used by the cultivators into three categories, namely under perennial crops, under seasonal or annual crops and for other crops. In the surveyed area, the majority of the people do not follow the standard spacing norms for planting crops. To overcome this difficulty, the area under crops was estimated using the standard area requirement given by the Kerala Agricultural University (KAU 1991) and the Indian Council of Agricultural Research (ICAR 1987). It is seen that, perennial crop is dominant in Agali and annual or seasonal crops cover most part of Sholayoor. Out of the area under perennial crops in Agali, a sizeable portion (80%)

is cultivated by Malayalis 13 per cent by tribals and only seven per cent by Tamilians. However, the area under seasonal or annual crops is shared almost equally by Malayalis and Tamils. Whereas in Sholayoor, Tamil farmers dominated in annual crops and had more area under perennial crops. However, it is common among Malayalis to maintain trees. These trees, not all of them served as the standard to grow pepper vines on. They give shade to coffee plantations and also numerous other benefits. Of the total area under trees, more than 70 per cent in both villages are occupied by Malayalis. However, the proportion of area under forest trees is 18 per cent in Agali and as low as six per cent in Sholayoor.

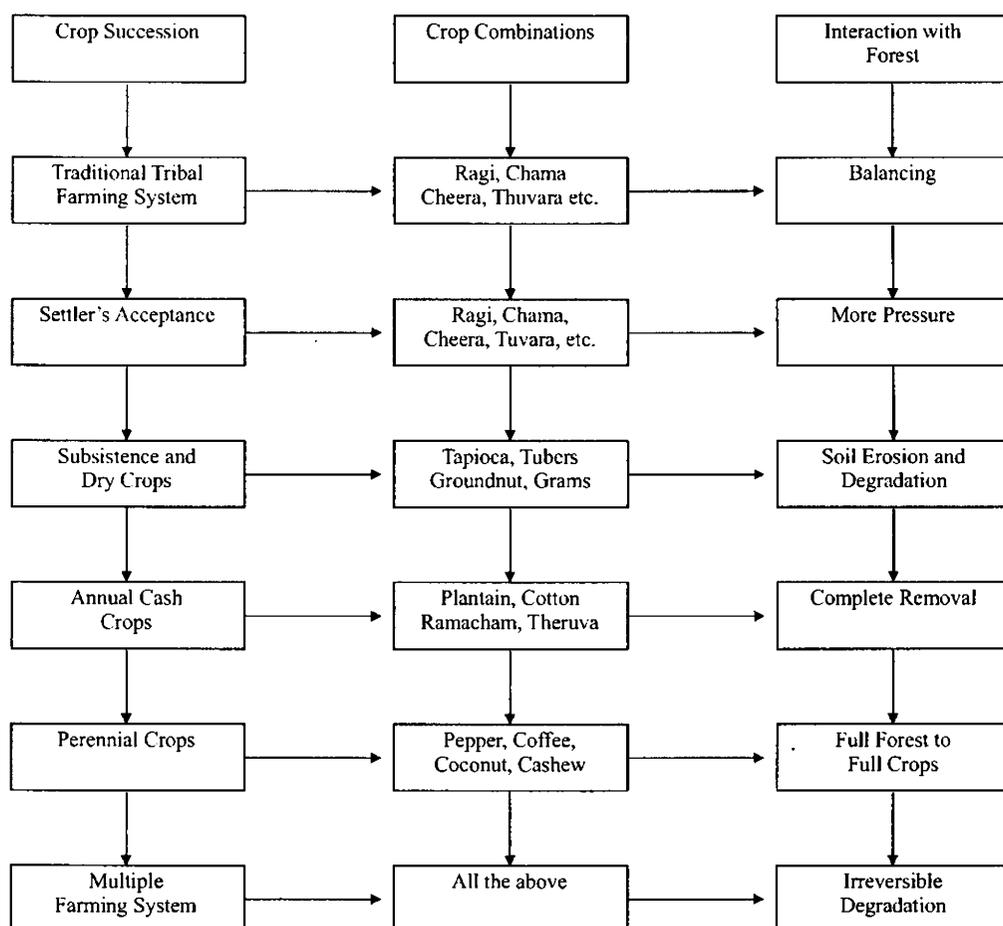


Figure 6.1. Crop Succession and Resource Degradation

6.4. Traditional Tribal Economy

Any study related to tribals will be fruitful only by analyzing their relationship with their traditional economic structure. Tribal culture is cognate with tribal economy and so, their economic system can be understood only within the purview of cultural factors. In the conventional wisdom of economics, economic factors like social and cultural relations are considered non-essential, though they are the tribal reality for the very organization of their economic process.

The traditional tribal economy is generally based on forest and characterized by simple technology. Tribal culture and forest have been inseparable entities. Both have been inter-dependent and inter-related. Forest has played a significant role in shaping the social, economic, religious, political and cultural systems of tribal societies.

Economically forest and tribals are closely related and inter-dependent. The system by which human resources and natural resources are governed is known as economy. The tribal economy is based on forest because economic institutions like production, consumption, distribution, market, trade, labour etc all are related to forest. Tribals in general and tribals in Attappady are not like general masses. Their main food items are ragi, thina, chama etc. which they cultivate through shifting cultivation. In addition to this, forest has provided them many resources for meeting their life. These items obtained from the forest plays significant role in controlling and maintaining the health of tribals. But due to the destruction of forest end environmental degradation they began to face shortage of these items. Lack of rain and droughts caused damage to their traditional agricultural system and as a result of this they lost their traditional food habits, which affected their health and living conditions. Traditional economic structure of tribals in Attappady is the following:

1. Hunting
2. Food gathering
3. Collection of Minor Forest Produce
4. Collection of fuel
5. Collection of fodder

6. Artisan activities
7. Shifting cultivation

6.4.1. Hunting

Hunting has been an economic activity of the tribals since time immemorial. They used to hunt birds and animals like deer, hare, rabbit, pigeon, peacock, sparrow, etc. The flesh of animals and birds were cooked and shared by the community members. Some kind of ritualistic hunting was also done on the occasion of festivals. Traditional tribals had used skins of hunted animal for clothes to cover parts of their body. They will use parts of animals for many other activities. Hunting was such an important cultural feature of the tribal society. Hunting implements of tribals include net, spear, bow, arrows etc. Government has banned the hunting of wild animals and birds. Previously they used to trap animals and birds for sacrifice on social, ceremonial, religious and festive occasions. Now they have to rear goats, hen, cock, duck etc for the purpose of sacrifice. Those who do not rear them, purchase the sacrificial animals or birds from the market.

6.4.2. Food gathering

Food gathering has been an important economic activity of tribals since pre-historic time. In fact hunting and food gathering together represent early stage of economy of mankind, because in the beginning man was not able to produce anything. He was fully dependent upon nature particularly forest for livelihood and survival. The example of food gathering among tribals can be seen in every part of the country. Tribals engaged in pastoralism, agriculture, artisan and other kinds of economic activities are also doing food gathering in and around the forest. Food gathering is an economic reality for tribals belonging to different cultural types. The practice of food gathering and the items obtained from the forest are the following

- a) ***Gathering of edible tuber crops:*** Tribals living in and around the forest have knowledge about the edible tuber crops and roots found below the soil in the forest. Tribals have deep knowledge of many plants and the soil where they are grown in the forest. The items of tuber crops which they have obtained from the forest include (1) Noore kizhangu (2) Kajadi kizhangu (3) Reeya kizhangu (4)

Eesi kizhangu (5) Neeru vekke (6) Peruukku (7) Nadu kodi (8) Naaru (9) Kaavathu (10) Paal Chembbu (11) Cheru Chembbu (12) Urula Kizhangu (13) Kunni Kizhangu (14) Vella Kuru (15) Madhura Kizhangu (16) Kattu Incha and (17) Kattu Manjjal.

- b) **Gathering of edible fruits:** Tribals gather fruits from a number of trees for the purpose of food. They prepare varieties of food from the fruits available from the forest in different seasons. Some creeper plants also grow near the tree or bushes in the forest. They creep on the bushes or trees and yield fruits. Some of the fruits available from the forest includes (1) Lummanpazham (2) Neer (naval) (3) Perakka (4) Vazhapazham (5) Chodali (6) Puusapazham (7) Cherapazham (8) Kkaikkale (9) Malaikulukki (10) Kallapazham (11) Anaakalli (12) Velikalli (13) Kevisi (14) Ongatte (15) Narimorade (16) CheruJuuli (17) Vanjuuli (18) Eesi pazham (19) Periyaviri (20) Cheruviri (21) Paralay (22) Vettuparalay (23) Pottari (24) Woodtte (25) Maathalam (26) Sethapazham (27) Karambb (28) chakka (29) Kattuchakka (30) Mambbazham (31) Athipazham (32) Narangga and (33) Kolopazham.
- c) **Gathering of edible cereals:** Tribals have the knowledge of vast number of cereals for their food items, which provide great amounts of protein and vitamins to their diet. These include (1) Ragi (kondda ragi, thunda ragi) (2) Chama (karu chama, malai cahma) (3) Nello (vayalnelu, guddenello) (4) Makkacholam (5) Virulaicholam (6) Vellacholam (7) Konddecholam (8) Manchacholam (9) Varagu (10) Paandi(thina, uppan pandi, arapandi) (11) Kambbu (12) Kattanellu (mulayari) (13) Gothanbbu (14) ellu and (15) Keere.
- d) **Gathering of edible Mushroom:** Tribals gather mushrooms from the forest. They recognize different types of mushrooms, which grow during the rainy seasons. They gather them to cook. Items of mushroom they collect from the forest include (1) Konddakkeka (thunder and rainy season) (2) Nayimalaieka (3) Panda (rainy season) (4) Chundikeka (5) Kattakkeka (6) Kathu (7) Arisikeka and (8) Pallekeka.
- e) **Gathering of edible Vegetables:** Tribals living in and around the forest know different vegetables growing in the forest. They have the knowledge of

collecting these vegetables for preparing the food items. These are (1) Chakkara (2) Vellari (3) Puusanikka (4) Kosaikka (5) Chorakkai (6) Paakarakkai (7) Peekka (8) Vendda (9) Vathanne(10) Chunddakkai(11) Cheruchundda(12) Churachundde (13) Pappali (14) Mathurai and (15) Cheru Mathurai.

- f) **Gathering of Edible Leafy Vegetables:** Tribals collect large varieties of leafy vegetables for preparing their food items. The main items are (1) Palaitak (2) Munne (3) Cheenkke (4) Malai Murunkke (5) Vasatte (6) Vasale (7) Malaisavale (8)Thailatak (9) Chilikkare (10) Pannetak (11) Padikkere (12) Mulikkere (13) Kadoke (14) Thondd etak (15) Chonkketak (16) Oppakannetak (17) Keeretak (18) Kadukatak (19) Chakka ratak (20) Chembbu (21) Narakela (22) Suruli (23) Thakare (25) Cherutakare (26) Thanangani (27) Kainetak (28) Gonike (29) Meenakanni (30) Veletak (31) Potiitak (32) Pothitak (33) Parippukeere (34) Pulimuttetak (35) Koyijeerakam (36) Kakaratak (37) Peekkatak (38) Choretak (39) Kadaletak and (40) Valutha tak.
- g) **Gathering of Honey:** Tribals living in and around the forest gather honey. They collect pure honey from the forest. This includes (1) Perenthen (2) Muthikkulathen (3) Naipadukkakkolathen (4) Thoduthi then (5) Karenthe then and (6) Vanddakathen.
- h) **Gathering of Oilseeds:** The tribals collect large varieties of oilseeds for preparing their food items which includes (1) Kadal enna (2) Avanakke enna and (3) Lippekkotte enna.

6.4.3. Collection of Minor Forest Produce

The forest produce is divided into two parts - minor forest produce and major forest produce. Timber yielding trees, ornamental trees used for the pulp for paper industries, bamboo etc, come under the category of major forest produce. Big trees, timber-yielding trees, ornamental trees, trees used in pulp industries and paper industries had attracted the attention of British Government very much. That is why, they had put a ban on felling those trees by the tribals, though they themselves were interested in cutting the timber yielding trees for the purpose of business.

On the other hand British Government left the tribals to do the collection of roots, shoots, vegetables, honey, flowers, pulses etc. For them these produce of forest were of no value. That is why British Government had used the term 'Minor Forest Produce (MFP)' for these minor products of the forest trees and plants. Although the British rarely collected MFP, those products were of great value for the tribals from the point of view of subsistence from time immemorial. Tribals have enjoyed the right of collection of MFP by tradition. This tradition also indicates the symbiotic relationship between tribals and the forest since prehistoric time. In the beginning, tribals used to do the collection of MFP only for the consumption and reciprocity. Minor Forest Produce can be broadly divided in to the following categories

1. Plant yielding essential oils
2. Medicinal plants
3. Fatty acids
4. Gums and resins
5. Bamboo and canes
6. Plants yielding edible roots, shoots, flower, fruits, seeds etc
7. Fodder/grasses
8. Honey and wax.

With the restrictions imposed by the forest laws and policies, tribals were losing their NTFP collection rights. Tribals in Attappady are completely curtailed of their right to MFP collection, because of the destruction and degradation of the forest.

6.4.4. Collection of Fuel

For every society fuel is needed to fulfil the basic needs of food. The tribals living in and around the forest do collect wood for fuel. They collect dry branches of trees or dry trees in the forest for the purpose of fuel. They used to enjoy these traditional rights. They also used to clear the bushes of forest and left them to dry. Then they collected the dry bush as fuel for cooking. Besides the fulfilment of self-need, tribals also collected fuel wood to supply them in the neighbouring town. In the traditional economy tribals had obtained large bundles of fuel for meeting their

needs. But due to the conversion of traditional economy into the mainstream economy, tribals are searching for fuel wood to meet the basic needs.

6.4.5. Collection of Fodder

Tribals also depend on the forest for fodder. The grass in the forest serves this purpose. There are several tribal communities whose main occupation is cattle rearing. Fodder collection is done almost by all tribes who live nearby the forest and do cultivation. They have cattles like cow, ox, buffalo, calves etc. Some of them have goats and sheep too. Now a days grazing of cattle in the forest is prohibited. Tribals in the past who were living near the forest collected varieties of grass to serve their cattle as fodder. There was no deficiency for fodder in the primitive tribal economy. Some tribals do the collection of grass in the forest for earning a little cash by selling them in the neighbouring villages.

6.4.6. Artisan activities

Tribals are very much interested in artisan activities. They are very capable persons in these fields. They not only use the articles for performing household work, but also earn money by selling baskets, leafy brooms etc. Now a days artisan tribes are facing a great problem in the collection of raw-materials like bamboo, bark, grasses and leaves due to the prohibition put by the Government on collection of these raw-materials.

6.4.7. Shifting cultivation

Shifting cultivation was the agricultural practice followed by the tribals in the past. It was the early form of agriculture, which is still practised by the tribes living in and around the forest. The method of agriculture used by these people is a method called shifting cultivation, which entails cutting down the vegetation in a given area of land and burning it when it becomes dry. The original vegetation is cut down at the beginning of the dry summer season and burnt shortly before the rainy season. Then the farmer will scatter seeds of the desired crop, and nature will take its course for the remainder of the growth. This cultivation is not carried out at the same place for more than a year. Each year the site of cultivation is changed. That is why it is known as shifting cultivation. Although the recent forest policies

have put a ban on the practice of shifting cultivation as forest cover decreases every year by this practice but even today, shifting cultivation is widely prevalent in North-East Himalayan region.

These are the important features of tribal women folk in the traditional economic structure. Tribals were completely satisfied with their entire living structure. The relationship of the tribals with the surrounding natural environment and the self-sustained living conditions changed very much due to the intervention of the non-tribal community.

6.5. Environment and Tribal life

Responses about whether the tribals belong to the original inhabitants or not are given in Table 6.1. Only 10 per cent are the original inhabitants and the others are not the original inhabitants of the area. In the earlier times, most of the population in this area were tribals. But due to the massive influx of non-tribals, they have occupied the larger portion of the tribal area. Tribal population began to decrease in a high proportion.

Table 6.1
Response about inhabitants of the area

Response	Frequency	Per cent
Original Inhabitants	30	10.0
Non Original inhabitants	270	90.0
Total	300	100

Source: Survey Data

The change in the life of the community is given in Table 6.2, which shows that 94 per cent of the respondents responded that their living condition got a better position than it was in the past. About 4.3 per cent opined that their living condition didn't get any change. Only 1.7 per cent replied that their situation of life got worse than it was in the past. They have mentioned some reason for the present

situation. Paths of development have not reached the tribals in the interior areas. Most of them are stressed by the intervention of the non-tribal communities which led to the degradation of not only the present situation but also exploitation of their living conditions.

Table 6.2

Response about the Change in the life of community in the past and the present

Response	Frequency	Per cent
Better	282	94.0
Worse	5	1.7
No Change	13	4.3
Total	300	100

Source: Survey Data

Major reasons for changing the life of the community and their preferences are given in Table 6.3. Respondents were allowed to give three major reasons and rank them according to their preference. About 33 per cent of the respondents gave first priority to changes in agricultural practice. Next comes the intervention of the non-tribal community (19.3%). The third major reason identified is the changes in social and cultural activities (12.2%). As the respondents were allowed to rank the reason according to their opinion, a weighted total score was computed by giving a weightage of 3 to first rank, 2 to second rank and 1 to third rank. The weighted score is also given in Table 6.3. From the table it is clear that highest score was for changes in agricultural practices. So changes in agricultural practices are identified as the major reason for change in the life of the community. Next two major reasons identified are the intervention of the non tribal community and changes in the social and cultural practices.

Table 6.3.

Reasons for change in the life of community

Reason	Frequency	%	Frequency	%	Frequency	%	Weighted Score	Rank According to weighted score
Changes in agricultural practices	99	33.0	72	24.0	43	14.3	161.3	I
Changes in weather conditions	45	15.0	23	7.7	49	16.3	76.7	V
Natural disaster	12	4.0	22	7.3	22	7.3	33.9	VII
Denial of their traditional life pattern	37	12.3	57	19.0	31	10.3	85.2	IV
Crop diseases	10	3.3	23	7.7	84	28.0	53.3	VI
Intervention of non-tribal community	58	19.3	32	10.7	46	15.3	94.6	II
Changes in the social and cultural practices	37	12.2	713	24.7	24	8.0	94.0	III
Others	2	0.7			1	0.3	2.4	VIII
Total	300	100.0	300	100.0	300	100.0		

Source: Survey Data

Main reason for the present condition of their life is given in Table 6.4. Each respondent was given three reasons and was asked to rank to them according to their preference. In this case also a total weighted score is computed giving a weightage of 3 to first rank, 2 to second rank and 1 to third rank to find out which is the major reason for the present condition. Major reason identified is lack of employment opportunities (weighted score was 169.8). Next comes poor land productivity. Some other reasons are poor health and related diseases, exploitation by the powerful sections of the society, denial of their access to forest and low level of education and skills.

Table 6.4.

Main reasons for the present condition

Reason	Frequency	%	Frequency	%	Frequency	%	Weighted Score	Rank According to weighted score
Lack of employment opportunities	116	38.7	57	19.0	47	15.7	169.8	I
Denial of their access to forest	32	10.7	31	10.3	35	11.7	64.4	VI
Poor health and related diseases	25	8.3	54	18.0	44	14.7	75.6	IV
Poor land productivity	50	16.7	66	22.0	39	13.0	107.1	II
No way to borrow money	6	2.0	23	7.7	66	22.0	43.4	VII
Exploitation by the powerful sections of the society	41	13.7	35	11.7	32	10.7	75.2	III
Low level of education and the skills	30	10.0	34	11.3	37	12.3	64.9	V
Total	300	100.0	300	100.0	300	100.0		

Source: Survey Data

Table 6.5 measures the extent of their life strategy with the environment. About 97.3 per cent of respondents responded that their life is very much related to the environment and 3.6 per cent replied that their life strategy is related to the environment to a very great extent. Only 0.7 per cent replied that their life is related to great extent to environment but now it is disturbed. From the table, it is clear that environment was everything to tribals. But the strict implementation of several laws and curtailing of their traditional living conditions restricted their life.

Table 6.5.**Response about extent of relation of their life strategy with environment**

Response	Frequency	Per cent
To a very great extent	6	3.6
To a great extent	292	97.3
To great extent but now it is disturbed	2	0.7
Total	300	100

Source: Survey Data

Table 6.6 represents the source of drinking water. Water scarcity is one of the important problems faced by the tribal communities. Majority of the respondents (81%) depends on pond as source of drinking water. Among these only 65 per cent opined that pond is very near to their dwelling place and 19.3 per cent responded that it is far away from their inhabitation. Only 2 per cent have own well for drinking water purpose. 64.7 per cent have pond for drinking water, of which 19.3 per cent have pond, which is far from their inhabitation. They have to walk a long distance to draw water. About 9 per cent of respondents have ponds for drinking water but they are at inconvenient places. Only 2.7 per cent of respondents have to depend on public tap for drinking water. Again 1.3 per cent of respondents also avail public tap facilities but it is at convenient places. Main problem in the study area is the lack of availability of water. In some tribal hamlets they have to depend solely on rain water. Availability of rain is also in very small degrees.

Table 6.6.**Source of drinking water**

Source	Near		Far		Convenient	
	Frequency	%	Frequency	%	Frequency	%
Own well	6	2.0	1	0.3		
Pond	194	64.7	58	19.3	27	9.0
Public tap	8	2.7	4	1.3	3	1.0

Source: Survey Data

Table 6.7 shows the responses of source of water for washing/bathing. About 80 per cent of the respondents depend on pond as the source of water for washing/bathing. Among these 52.3 per cent depend mainly on ponds. Only 15 per cent have own well for washing and bathing. About 14.3 per cent have own well for washing and bathing. The respondents who draw water for washing and bathing from neighbours well are 0.7 per cent. About 1 per cent of the respondents depend on neighbours well. Only 6 per cent depend on public tap. The scarcity of water is a serious problem in the life of tribal women. They have to spend a lot of time and energy for drawing water by covering long distances. This increases their work load and leads to the consequent poverty and poor health conditions.

Table 6.7.

Source of water for Washing /bathing

Source	Near		Far		Convenient	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Own well	43	14.3			2	0.7
Neighbors well	2	0.7	1	0.3		
Pond	157	52.3	59	19.7	23	7.7
Public tap	7	2.3	6	2.0	6	2.0

Source: Survey Data

Table 6.8 provides a picture about the scarcity of water in the study area. Water scarcity is a chronic problem in the study area because 96.3 per cent of respondents face the problem of water scarcity in the study area. Failure of many cropping pattern is due to the non-availability of water. Even though the fertility of the soil is good, the shortage of water affects them in every walk of their life. Shortage of rain will dry the rivers and ponds. In the earlier times the area was filled with numerable streams, water falls and rivers. But deforestation and changes in climatic conditions severely affected the life of the community and the resultant water shortage.

Table 6.8**Response about the scarcity of water in the area**

Response	Frequency	Percent
Scarce	289	96.3
Not scarce	11	3.7
Total	300	100

Source: Survey Data

Treatment of water for using is given in Table 6.9. Usually tribals are subjected to various kinds of diseases. About 32.7 per cent of respondents use the water after boiling. Almost 5 per cent of respondents use water by adding medicinal herbs. Majority of 62.3 per cent of respondents use water as untreated. Most of them are not aware of the causes of their diseases. Spread of cholera and diarrhoea is very prevalent in the tribal hamlets. This can be prevented to a great extent by using water after boiling.

Table 6.9**Treatment of water for using**

Response	Frequency	Per cent
Boiled	98	32.7
Add medicinal herbs	15	5.0
Untreated	187	62.3
Total	300	100

Source: Survey Data

Table 6.10 shows the sources of lighting in the study area. For 80.7 per cent of respondents, the source of lighting is kerosene. It implies that major source of their lighting is kerosene only.

Table 6.10
Source of lighting

Response	Frequency	Per cent
Kerosene	242	80.7
Electricity	32	10.7
Candles	11	3.7
Solar	14	4.7
Nil	1	0.3
Total	300	100

Source: Survey Data

Table 6.11 gives the details of the sources from which the fuel is collected. About 88.3 per cent of respondents collect fuel from the interior forest areas and 9 per cent say that they depend on other villages for the collection of fuel wood. Only 2.5 per cent opined that they collect fuel from the nearest places. This indicates that fuel collection is also another major problem faced by the tribal women. For fuel collection they have to walk a long distance to reach the interior forest.

Table 6.11
Source from which the fuel is collected

Source	Frequency	Per cent
Nearest place	8	2.7
Interior forest	265	88.3
Other villages	27	9.0
Total	300	100

Source: Survey Data

Table 6.12 gives a view of the number of members in the family that goes to collect Non Timber Forest Produce (NTFP). From the table it is clear that at least one member from each family goes to collect NTFP. About 80.3 per cent

responded that two members from their family go for the collection of NTFP and 14.4 per cent responded that more than 3 members from their family go for the collection of NTFP. Results indicate that NTFP collection is a compulsory occupation to each and every family.

Table 6.12

Number of members in the family going to collect NTFP

Number of members	Frequency	Per cent
1	16	5.3
2	241	80.3
3	25	8.3
4	7	2.3
5	9	3.0
6	2	0.7
Total	300	100

Source: Survey Data

Response to the availability of NTFP from forest is given in Table 6.13. Forty five per cent of respondents in Agali panchayath, 60 percent in Pudhur, 36 per cent in Sholayoor are not satisfied with the availability of NTFP obtained from the forest. About 53 per cent in Agali, 35 per cent in Pudhur and 63 per cent in Sholayoor panchayath opined that there is scarcity for NTFP.

Table 6.13

Responses to the availability of NTFP

Degrees	Panchayaths					
	Agali		Pudhur		Sholayoor	
	Frequency	%	Frequency	%	Frequency	%
Not satisfy their needs	45		60		36	
Scarce	53		35		63	

Source: survey Data

Table 6.14.**Percentage of respondents engaged in NTFP collection**

Items	Agali	Pudhur	Sholayoor
Honey	20	35	24
Edible fruits	10	15	7
Cereals	30	43	27
Mushrooms	12	22	7
Edible vegetables	7	12	3
Oil seeds	2	6	4
Medicinal plants	11	21	5
Fodder/grass	8	14	3
Tuber crops	4	27	13
Soap nut	16	36	25
Fuel	52	67	55
Materials for house construction	38	69	60

Source: Survey Data

Items collected as NTFP and the number of respondents engaged in the collection of these NTFP is given in Table 6.14. Respondents of Pudhur are more dependent on the forest for NTFP collection. The major items for which the respondents of the three areas are depending on the forest are fuel and materials for house construction. Honey, cereals and soap nut are the major NTFP items they collect from the forest.

Table 6.15 exhibits clear pictures about the toilet facility in the study area. From the table it is clear that only 5 per cent have their own toilet facilities. About 84.7 per cent use open air for toilet. Others (10.3%) use pit for their use.

Table 6.15
Response about toilet facility

Response	Frequency	Per cent
Pit	31	10.3
Open air	254	84.7
Own toilet	15	5.0
Total	300	100

Source: Survey Data

Table 6.16 revealed the nature of waste disposal. They are following different forms of waste disposal. About 14.3 per cent of respondents dispose the waste outside the home. About 26.7 per cent dispose the waste in common pit. Almost 26 per cent burn the waste. About 33 per cent of them bury the waste. They are not so much aware of the waste disposal and the related problems.

Table 6.16
Response about waste disposal

Response	Frequency	Per cent
Heap outside home	43	14.3
Heap in a common	80	26.7
Burn	78	26.0
Bury	99	33.0
Total	300	100

Source: Survey Data

Table 6.17 provides the responses of the number of times they bath in a day. About 73.3 per cent of respondents bath once in a day and 24 per cent opined that they take bath twice a day. But 2.7 per cent replied that they do not take bath in a day.

Table 6.17**Number of times baths taken in a day**

Number per day	Frequency	Per cent
Once a day	220	73.3
Twice a day	72	24.0
Nil	8	2.7
Total	300	100

Source: Survey Data

Table 6.18 shows the availability of basic facilities like hospital, primary health centres, post office, bank, school, co-operative societies and other facilities. About 8 per cent have hospital facilities near their hamlet, 2 per cent have primary health centres. Nearly 6 per cent have bank near their habitation. About 12 per cent have availed of the facilities of post-offices. Respondents who are receiving the benefits of co-operative societies are only 0.3 per cent. About 13 per cent have enjoyed the entertainment of Cinema Theater. 17 per cent have received the benefits of shops. About 20 percent have obtained the benefits of telephone facilities, which they avail through public calling facilities and telephone booths. Nearly 5 per cent are usually watching television and 2 per cent have radio. About 19 per cent of respondents are using the road facilities. Nearly 0.3 per cent enjoys club facilities. Library facilities are used only by 0.3 per cent of respondents. Only 0.7 per cent receives the benefits of solar light. 10 per cent avail of bus routes. Only 5 per cent have ponds, well and tap near their habitation. Inclusion of these respondents in to the mainstream has some impact on their traditional facilities.

Table 6.18**Number of respondents who responded the availability of facilities**

Facilities	Frequency	Per cent
Hospitals	23	7.7
Primary Health Center	5	1.7
Schools	19	6.3
Banks	18	6.0
Post Office	36	12.0
Co-operative societies	1	0.3
Cinema theater	39	13.0
Shops	52	17.3
Bus routes	51	17.0
Telephone	60	20.0
T.V.	14	4.7
Radio	5	1.7
Roads	57	19.0
Clubs	1	0.3
Library	1	0.3
Solar light	2	0.7
Buses	29	9.7
Ponds/Well/Tap	14	4.7

Source: Survey Data

Table 6.19 shows the distances travelled to collect the fuel wood. The table shows that above 9.4 per cent have to travel more than 3 k.m to collect fuel wood. Among these 12 per cent have to more than 6 k.m for fuel collection. As a result of which they have faced acute shortage of fuel wood, which is one of the most important needs of the tribal economy

Table 6.19**Distance travelled for collecting fuel wood**

Distance(km)	frequency	Per cent
More than 3	28	9.4
3-6	236	78.6
More than 6	36	12.0

Source: Survey Data

Table 6.20 has shown the responses about the persons doing household work when they go outside. From the table it is clear that 2 per cent is done by children, 92.7 per cent of responses are that they themselves do the household work and 4 per cent of respondents say that their mother will do the household work when they go for the collection of fuel wood. About 1.3 per cent has other members in their home.

Table 6.20

Response about who is doing the household work

Response	Frequency	Percent
Children	6	2.0
They themselves	278	92.7
Mother	12	4.0
Others	4	1.3
Total	300	100

Source: Survey Data

Table 6.21 clearly mentions the details of number of members migrated to other places. The table shows that 39.7 per cent of responses have no members in their family having migrated to other places and 41.7 per cent say that one member has migrated to other places. About 17.3 per cent stated that two members in their family have migrated to other places for getting some job. About 1.3 opined that 3 members from their family migrated to other villages in search of some job.

Table 6.21

Number of people migrated to other places

Number	Frequency	Percent
0	119	39.7
1	125	41.7
2	52	17.3
3	4	1.3
Total	300	100

Source: Survey Data

Chapter 7

Development Measures and its Functionings in Alappady

DEVELOPMENT MEASURES AND THEIR FUNCTIONINGS IN ATTAPPADY

7.1. Development measures taken in Attappady

The uniqueness of Attappady lies in its geography, weather, habitat, agricultural practices, historical background, administration etc. Being Kerala's largest Block (covering 745 sq.km), it is the only Integrated Tribal Development Block jointly run by Rural Development Department and Tribal Development Department. Banks of two eastward flowing rivers (Bhavani, Shiruvani), Kerala's most important catchment area, with a difference in annual rainfall of 3600 mm to 800 mm etc make this area special.

Settlement of immigrants in Attappady started in 1930's and it increased during 1940's. Since 1960 there has been a heavy influx of settlers. Most of the migrant farmers arrived here after this. The population in Attappady during 1961 was 20,625 and of them 64 per cent belonged to Scheduled tribes. Today the population has increased three fold but the percentage of tribes has come down to 37 per cent.

Till recently the prime land in Attappady was rich in forests. Western part of Attappady has thick evergreen forests. As one proceeds eastwards thick evergreen forest and deciduous forests are seen. Coimbatore plateau has dry deciduous type forests. Between the Nilgiri and Shiruvani mountains, at an altitude of 1500 m, large pasturelands with step like reserve forests are also seen. Heavy wind affects the vegetative growth and habitat of this region.

Attappady had altogether 465 sq.km of forest area of which 293 sq.km is reserved forests and the rest protected forest. But unbridled felling of trees by encroachers resulted in depletion of the forest area. Attappady region has rich resource of minerals. Clay, graphite, tungsten, diamond etc are some of them. Very recently gold deposits have also been found here. However, the proximity of economic exploitation of these has not yet been studied.

Only 17.4% of the land area in Attappady is used for agriculture. Of which 10.42% belonged to cash crops. Land suitable for paddy cultivation is less. 64.60 sq. km of land lay barren. Erosion is the main reason that makes the soil barren. What makes the situation worse is the loss of vegetative cover followed by heavy inflow of water and heavy winds. The major cause for this situation is human interventions.

Government sponsored development in Attappady can be discussed under three periods (1) pre-1962 (2) 1962 to 1975 and (3) post 1975. In the pre 1962 days the government initiative in development was limited in the form of interventions in the area of health and education. In the 1950's the anti-Malaria programme was carried out successfully in Attappady under the National Malaria Eradication Programme. During this period, five welfare schools were started with the aim of attracting tribal children to schools. An office of the Deputy Tahasildhar was opened in Attappady to lend back up support to these Government programmes and also to sort out local disputes.

In 1962, Attappady was declared as a Tribal Development Block and a Senior Block Development Officer was posted. Infrastructure development was given prime importance. The arterial road of Thavalam-Mully, the important cross way across the Bhavani River at Pudhur and several schools and office buildings were all constructed in the first few years (KIRTADS 1982). Extension works were carried out to further education and importance was given to agriculture and animal husbandry. Special efforts were made to improve personal hygiene. In 1961, the process of recording of the land right of the tribals was taken up as part of the land reform measures. In 1966, the massive Kundha River Valley Project was introduced in Attappady to conserve soil and moisture to prevent siltation of the Kundha dam. This scheme is still in operation and more than Rs.12 crore was spent so far on it. In 1971, the private forests were nationalized.

In 1975, the Tribal Development Block was upgraded into Integrated Tribal Development Programme (ITDP) with much higher inflow of funds particularly for housing and economic development. Along with this Western Ghat Development Programme (WGDP) was introduced primarily in the form of two co-operative

farms covering an extent of about 2000 hectares intended to rehabilitate and settle landless tribal families. In the first seven years of this scheme about Rs.3 crore was spent.

In 1980s, the allotment of funds to ITDP under various rural development programmes started, increased significantly. IRDP, NREP, and RLEGP were started in 1985 and that marked another watershed in the development history of Attappady. Prime Minister Shri. Rajiv Gandhi visited this place in September 1985 and this was followed by a series of administrative measures to improve the condition of Attappady. For four years from March 1986 the project was put under the charge of 148 officers.

During 1980's and 1990's, there were phenomenal increases in expenditure on the construction of roads. Investments in tribal housing also increased. In 1989 NREP and RLEGP were converted into JRY. In 1993, Attappady became one among the 20 Blocks in Kerala where Employment Assurance Scheme became operative, giving guaranteed employment of 100 days a year for two members from unemployed rural families falling under poverty line.

Attappady Wasteland Comprehensive Environmental Conservation Project was a scheme implemented with Japanese Overseas Economic Co-operation Fund. The project was aimed at restoring the environmental ambience of Attappady. Financial agreement in this regard was signed on 25th January 1996. The project was conceptualized by Centre for Water Resources Development and Management (CWRDM). Later, they were entrusted to carry out a detailed survey and make designs for the above project vide GO (Ms) NO: 14/96/RDD dated 8-8-96. The project was implemented by an autonomous organization viz, the Attappady Hill Area Development Society (AHADS).

Under the auspices of AHADS on 5th, 6th, 7th and 8th of May 1997 a seminar on 'Environmental Restoration of Attappady' was organized to review the development and progress of the project. Various departments and agencies that were entrusted with specific activities presented their development plans, achievements, budget etc. Various voluntary organizations, social activists, subject

experts, scientists and officials based at Attappady put forward their views and suggested solutions for various problems facing Attappady.

Against the backdrop of this seminar, it was recommended that a study be conducted to analyze the impact of earlier developmental programmes carried out in Attappady, their aims, mode of operation, financial outlay, project achievements or flaws, and most importantly suggestions for avoiding repetition of these from the forthcoming AHADS project. In this regard, the AHADS governing body met on 10-5-97 and decided to assign this study to Integrated Rural Technology Centre (IRTC), Mundoor, Palakkad. The following are the Terms of Reference decided under the Memorandum of Understanding between IRTC and AHADS.

7.2. Additional Measures taken for Tribal development

7.2.1. Agriculture

The functions of krishi Bhavan started in 1976. During the past 10 years, the Agriculture Department spent crores of rupees in Attappady. The main objective was to provide different types of facilities and assistance. But several complaints were raised with regard to the implementation of the programme. Some of the complaints are summarised below:

1. Most complaints pertain to the fact that farmers have not been benefited from Krishi Bhavans, although the documents say otherwise. This clearly indicates that there is not much publicity and transparency.
2. Certain lobbies through forged documents steal concerned benefits meant for farmers. People complain that most of the assistance offered by Krishi Bhavan did not reach the actual beneficiary
3. Planting materials supplied were of doubtful quality. During distribution of planting materials it is doubtful whether facilities were available for planting. Irrigation facilities, actual interest, suitability of the land for cultivation of a particular crop etc should also be taken into consideration. The main cause of this mismanagement is the lack of clear vision for overall agricultural development in the region.

4. Each Krishi Bhavan should have a farmers register. The total land available with the farmers, land utilized for agriculture, basic infrastructural facilities available with the farmer and the new facilities being provided to them should all be documented in the register. This would ensure that only eligible farmers are given timely assistance. Each panchayath should include this information in their resource map.
5. The shortcomings in connection with granting pump sets are to be avoided. Pump sets were given to farmers who were not having electrical connection. Such farmers should have been provided with diesel engine pump set, or kerosene pump sets. Such defects can be avoided by compiling basic information of the farmers, the above details should also be included in the register.
6. Attappady's weather and soil properties were not given any consideration, no concerted attempt is made to popularizing crops and agriculture practices. For example the most commonly found trees are coconut trees. Farmers opine that in other regions, coconut harvesting is done every 30-40 days, in Attappady this is done only after 60-70 days (this is why most of the trees are leased for toddy tapping). This phenomenon has not yet been noticed or studied by the Agriculture Department. Similarly, it has been suggested that apples, avocados, lemon, special types of mangoes etc grow well in Attappady. Sandalwood, rosewood etc also grow naturally in Attappady. Hence there is a need for projects with more ingenuity to economically exploit the available resources.
7. Decentralization of Agriculture development programmes is a must. If the developmental activities need to reach every part of the vast Attappady region this is very important.
8. The number of demonstrators in Krishi Bhavans needs to be increased. They should routinely visit the farm place and impart methods to help them. Also a vehicle should be provided at the field office for facilitating field work of the officers.

9. Farmers should be given timely information about each and every scheme and details regarding the submission of application. Many farmers reach the Krishi Bhavan after the last date for submission of application. This happens basically because of the lack of timely information. Assistants involved in fieldwork can inform the farmers of these schemes at the right time.
10. The files at the agricultural office are not properly maintained. This occurs due to shortage of staff. In order to rectify this, a clerk cum typist should be appointed in the Krishi Bhavan. At present the above duty is carried out by agriculture assistants, as a result they are not able to perform their assigned duties.
11. Much emphasis is not given to encourage bio-fertilizers, implement crop insurance, attain overall sustainable agriculture development etc. It's also regretful to note that there isn't any concerted attempt to link allied sectors such as land-water conservation, animal husbandry, irrigation, drinking water etc.

7.2.2. Soil protection schemes

This scheme started its functioning in 1973. The soil protection activities carried out in Attappady are extremely scientific and well planned. But there are certain defects in the execution of these activities. Many of the check dams are in a very pitiable condition. In places like Attappady where there are steep hill and valleys and heavy rainfall, trenches will get destroyed very soon, says expert.

7.2.3. Animal husbandry schemes

Numerous developmental measures were introduced in the field of animal husbandry in 1980. Many veterinary hospitals are also working in the area. But the activities and functions of these hospitals are not beneficial to the people. Preventive vaccines must be given to cattle. The calves and lambs distributed in the area must be developed in Attappady itself otherwise they will have no resistance. Farmers must be instructed to rear the cattle in a scientific manner.

7.2.4. Dairy Development Schemes

Dairy development activities are going smoothly because of the interest of the small farmer groups. Schemes were introduced in 1982. Cows given to the tribals are not living longer. The tribals are not familiar with protection of cattle. They don't treat cows at the time of illness. Most of the cows do not survive because they cannot adapt to the climate of Attappady.

7.2.5 Fish cultivation schemes

Functioning and implementation of fish cultivation schemes were introduced in 1986. Even though the climate and demographic features are not suitable to these practices, lot of money has been spent by this scheme. For example, Rs. 1000 has been provided for the growth of fish and Rs. 1.75 lakhs for the concreting the sides of the pond. But the entire money is not spent for the desired purpose. The entire money was not spent for the desired purpose. The agencies are acting without any connection to the practical purposes.

7.2.6 Sericulture

Seri fed has been functioning very well in Attappady since 1986. People of Attappady can very well engage themselves in this field and make profit from this. The climate and nature of the soil are suitable for these in Attappady. Schemes for promoting sericulture in Attappady are viable and practical and thereby solve the livelihood problem of the people.

7.2.7 Availability of Drinking water in Attappady

Non availability of drinking water is the main problem faced by the tribals in Attappady. Because of the hilly nature of Attappady it is not possible for digging wells in many of the places. Bore wells and hand pumps are the main alternatives for solving water problem. For rectifying small complaints of the bore wells and pumps the tribals have to approach the concerned agencies which are very often very difficult. On the other hand, if these schemes were introduced with the participation of people, these problems could be sorted out quickly and easily, as the tribals will be having the know how.

People depend on streams, rivers and bore wells for water needs. But these sources are highly polluted. Many of the bore wells are dry. This forces the tribal women to walk long distances to draw water. Policies and programmes with the participation of the tribals should be envisaged to solve this problem.

7.2.8 Integrated Tribal Development Project (ITDP)

The functions of ITDP are not satisfactory in Attappady. Lack of sensitivity and absence of effective participation of tribals can be seen in every action. ITDP started its function in Attappady in 1975. Reports of Madhava Menon Commission (1982) high lights that the short comings of the functions of the commissions. Main shortcomings are listed below:

Primary observations and recommendations

(1) Ignorance, Negligence and Malafides

The committee has found ample evidence of ignorance, negligence and malafides of the ITDP project staff about tribal realities and tribal interests in the conduct of official business.

(2) Lack of sensitivity to tribal interests

The project authorities were functioning without any supervision or monitoring or check by any official bodies since its inception. As early as 1977, the Government had ordered through a G.O to constitute an advisory committee consisting of ten representatives of tribals selected from the Mooppan's council. Local panchayath presidents, M.L.As and M.P's by some tricky interpretation of the wordings of the G.O, the district collectorate of Palakkad has never implemented the G.O. The Committee recommended that the G.O. should be implemented immediately.

(3) Lack of Tribal involvement

Lack of tribal involvement has been conspicuous and the committee emphasize that no programme for development serve any useful purpose without the active involvement and participation of the tribal groups. The committee,

therefore, recommended revitalization of Moopan's council and constitution of strong and committed advisory committee for the project.

(4) Distance between the tribals and the development authorities

Perhaps the saddest part of the story is the distance maintained by the Collector and other authorities from the tribal people of Attappady. The Committee strongly urged that it should be obligatory on the part of every district officer, right from the collector downwards to spend at least three continuous days of duty in remote hamlets preferably on foot.

(5) Greater involvement of Forest Authorities

The immediate available local officers in Attappady other than project staff are forest officials who have been deliberately kept out of touch with the development activities. This has reduced the interest of the Forest Department to act as an enforcement agency in so far as tribal development is concerned. The link between the forest and tribals is very close and symbiotic. It would be very useful to involve forest authorities in many of the development activities including the construction of irrigation structure in the Attappady valley. This is vital in the case of primitive groups (eg: Kurumbas living in the forest area)

Government Intervention

7.2.9 Health Guide scheme

The scheme was initiated in 1988 to train selected tribal boys and girls who had studied up to standard X (SSLC) in preventive health care as well as simple first aid measures, so that they could function as barefoot paramedics. Departure was made from the earlier practice when political influence or official patronage used to be the decisive factor in the selection of tribals for various semi-official temporary posts like Anganvadi Workers, Functional Literacy Instructors etc. It was decided to make the selection process transparent and merit based. All tribal youth who had completed standard X, were called for a written examination and 39 persons including 18 girls, were selected on the basis of merit out of the 107 persons who appeared for the examination. Later it was found that this selection

method was praised as fair by tribal youth as it boosted their self esteem and added to their dedication and confidence in playing the key roles of agents of change.

A 45-day training programme was arranged, in which two types of classes were conducted. One was to teach factual and technical aspects of primary health care and the other to build up general awareness on the problems of tribals. Special care was taken to ensure that the classes were handled by the most competent individuals. After the training the health guides were assigned to different oorus.

They were given clear tasks to perform which were decided after a long dialogue between the officials and the trainees and they were entitled to a monthly honorarium of Rs.300. These tasks included specific activities like immunization, bringing sick people to the hospitals, follow up of treatment measures, looking after pregnant women, arranging applications to be given for various Government welfare pensions, filing applications for returning alienated tribal land, admitting students to schools and hostels preventing drop outs and the like. They were also expected to look after general activities to build up awareness among the tribals about the duties of officials with respect to various schemes, harmful effects of habits like drinking and the need to strengthen artistic talents and preserve cultural traditions.

The Health Guides achieved some degree of success in their activities. They formed 49 youth clubs in three months for awareness building and local actions. The affective strength in Attappady hostels went up from 590 to 1060 inmates and going by the estimate of ITDP authorities, 98% of children below the age group of nine were admitted to schools during the year 1988-89. A very significant achievement was the conduct of supplementary feeding programme for the tribals during the lean season in 1988. On such occasions in the past with the entire expenditure borne by the Government there were frequent instances of leakages. With the Health Guides leading the scheme Government expenditure was limited to transports of food grains up to the nearest lorry point of the ooru. Thereafter motivated by the health guides the ooru people transported it to their villages and arranged for its cooking and distribution. This resulted in enhanced satisfaction on the part of the ooru people and willing contribution as kind and

labour estimated at 20 % of the total cost. It helped voluntary mobilization of tribals for a common activity.

Within the short span of six months the Health Guides could spread in major parts of Attappady and make them aware of not only about Government Programmes but also initiate a participatory debate on the problems faced by the tribals and the possible ameliorative measures. Both officials and tribals testified that the role of the middlemen had decreased and mis-information and corruption had come down sharply as a result of the activities of these social animators.

However, the successful operation of the Health Guides invited opposition from contractors and political leaders. The possibilities of keeping records and using lesser quantities of material and labour were reduced by direct supervision by the Health Guides along with the youth clubs. Similarly the political leaders found it difficult to draw out tribals for street demonstrations. There was also opposition from some officials because of the importance given to the health guides who kept the tribal population informed about various aspects of the schemes and gave regular feed back on the manner of implementation of the scheme. Naturally, in the context of such opposition the tribal Health Guides needed special support from at least the senior officers. They required sustained motivation to carry out the tasks assigned to them, in the face of obstacles. Also their activities needed to be stepped up and enlarged. But after about 18 months the officers who supported the experiment left Attappady on transfer. The scheme was not wound up, but it languished without direction and support. The Health Guides were no longer given specified tasks to perform. Their larger role of motivating the tribals and their effectiveness was reduced as their reports and requests were not followed up in the ITPP office. In spite of the ultimate collapse the experiment showed the possibilities of participatory action.

7.2.10 Girivikas Project

Education is one of the important strategies for the development of tribals in Kerala. It started its function in 1990. Attappady has 13 Primary Schools and four High Schools and 11 hostels. In addition to these facilities, lumpsum grants and stipends are given to tribal students to meet their cash requirements. Yet the

achievements are very low. The results of SSLC examination show that the pass percentage among tribals has been below 10 percent in all the years from 1985 onwards. The work of the Health Guides provided an impetus to educational activity in Attappady. The tribal youth became concerned with the quality of the education and this came through the youth clubs.

In 1993, the Nehru Yuva Kendra, a Government of India organization to which youth clubs were affiliated initiated a scheme for remedial coaching to tribal boys who had failed in SSLC examination. Later it was extended to girls in the next year. The scheme known as Girivikas was approved by the district administration.

The programme was extended not only to provide good quality education but also to boost the self confidence of tribal youth and conscientize them on the problems and possibilities faced by the tribals of Attappady through learning motivation and discussion. Even while career opportunities were made known to them, their role as agents of change in their society was emphasized. Therefore enough time was set apart for awareness building classes by social workers and other persons of eminence. In the first year, applications for joining the special coaching classes were invited through a press release. The Nehru Yuva Kendra officials went to Attappady, called a meeting of all the tribals who had failed in SSLC during the previous year and finally 27 students joined the programme.

Instead of paid tutors, the services of volunteers were enlisted. In order, to get enough number of volunteers, the scheme was located at the district head quarters. The voluntary tutors were paid for their travel costs and miscellaneous expenses not exceeding Rs 500 per person per month. All the boarding, lodging and educational expenses of the tribal boys were met by the project. A kind of 'Gurukulam' approach was tried out. Health care including yoga and sports and games formed part of the co-curricular activities. Special efforts were made to foster self-confidence among the tribals through close interactions.

This compares well even with the general pass level of non-tribal students in the district and this was achieved at a cost of only Rs. 7.02 lakhs making it cost effective as well. During the field work in Attappady it was found that the ex-

participants of the Girivikas projects formed an active local group and maintained frequent interaction with Nehru Yuva Kendra through leadership classes and youth camps. They were found to be very perceptive. In their analysis of tribal problems, they were keen on serving as volunteers to initiate department programme. This caselet illustrates the possibilities of motivating tribal youth for publication even while giving them formal education. It underlines the necessity of a dedicated approach on the part of officials to achieve success in tribal department ventures.

7.2.11 Malliswara Project

The project which started in July 1993, envisages an expenditure of Rs. 348 lakhs spread over 12 years. This project was initiated to achieve Participatory Forest Management based on a model evolved by Prakriti Samrakshana samithi an NGO which did some work in Attappady in the second half and they alone have the right to vote. Initially the general body of all adults from the 14 oorus within the project area used to participate in the elections. But now the system has been changed and an Electoral College has been constituted with two representatives, a male or female from each ooru elected by the ooru people. The Electoral College elects the executive committee of the workers society. Now there is greater involvement by the people in the election than that in the earlier system. The ooru sabhas were constituted and weekly meetings are being held at fixed time on the fixed days, mostly in the evenings after the tribals returned from work. Though there was large enthusiasm in the beginning, participation is on the wane with the average attendance being 50 per cent in the last three months of 1995. This is because the forestry project cannot meet many of the local needs.

It is managed by a small group of specially selected forest department staff, one range officer, two foresters, four guards and one driver helped by 14 local volunteers, six boys and 8 girls all of them tribals, called Motivators. They acted as social animators interacting with the villagers and encouraging them to organize into local groups to express local needs, analyze problems and to take participatory decisions to sort them out. The Motivators are paid daily wages at the rate of Rs. 52.25 per day.

The main items of work are fire protection, seedling protection and digging of pits for soil and moisture conservation. About 10 per cent of the expenditure is on the Motivators. In the normal forest department procedure such works are done through conveners who are defacto contractors using the local tribals as labourers and these contractors make substantial profits. Since there is no tender in the process, influential persons are known as conveners. In the present project, paniyalar sanghan (workers society) has been registered. All the works are carried out by this society. It has officials as president and vice-presidents but the remaining seven members of the executive committee are non officials who are elected from the tribal oorus

Another 15 per cent of the wages is kept in the bank accounts of the beneficiaries jointly with the vice president as a sort of thrift deposits. Analysis of a sample of pass book showed that withdrawals work more than 90% and frequent. From August 1995 an interesting experiment in informal banking has been started with a three tier organization. There is a primary group of five people separate for men and women. Eight such primary groups constitute a secondary group and normally there is one secondary group for each ooru. One male and one female representative from each secondary group constitute the project group and one leader is elected at the project level. Community interviews were conducted in four out of the 14 oorus under the projects to assess the impact of the project. Though it is too early to evaluate the thrift group experiment the initial responses are very encouraging.

However there is not much of participation in deciding works under the project and carrying them out. The selection of species for planting, selection of sites for development works, timing of the works and measuring the works are all done departmentally. The workers society opposed soil conservation department and succeeded in wresting work to be done by the society instead of middlemen. The society also succeeded in closing two liquor shops showing the possibilities of public action by a conscientized group. Still the Motivators and the local people felt that the intensity of participation would be greater if people are fully involved in all the activities from the pre-planning stage itself.

The success story again exemplifies the role of officials, local organization and intermediation by dedicated volunteers from the community and the need for a deliberate planned strategy but at the same time capable of being redefined to bring about participation. It also reveals the slow-rooting nature of genuine participation.

7.2.12 NGO Interventions

NGO actions are limited in Attappady. However, three interventions deserve mention “Sarang”, which is essentially an organization revolving around a teacher couple who have strong ideological faith in organic farming, succeeded in regenerating forest through local action primarily by protection against fire and by gap filling using local species identified by the tribals. A micro watershed covering about 100 hectare has been reforested and the dried up streams have been regenerated. All this was achieved at a very low cost. The critical factor for this success was the faith in traditional knowledge systems of the tribals.

The Prakriti Samrakshana Samithi took up afforestation in Bommiampady hamlet in 1985 through participative afforestation. The local people were motivated against sending their cattle for grazing to serve as a form of social fencing, seedling of local species were raised by the women of the ooru and planted by the ooru people. Campaigns were held against the evils of drinking. And within ten years, the forest regained its earlier density and three streams were rejuvenated. The ooru people still refrain from grazing their cattle in this area. Powerful messages about the appropriateness of local techniques of regeneration of vegetation delivered by the charismatic leader of the NGO brought forth popular support. The focus on women made the social fencing very effective.

The third intervention by an organization called “Nature” revolves around single dedicated individuals and is funded by both domestic and foreign sources. This NGO which began its activities in 1985 on community health care attempted a participative watershed management in 1988. Even four years of work did not enthuse the local people to accept such a project. Initially they worked only as labourers without any middlemen. Local species were planted and payments were made on the basis of survival rates. There was some local political objection, but it was patched up during 1995.

Participative venture picked up in 1994- six years after the initial attempts. Now four committees have been formed in each of the four tribal oorus, where the NGO is active, viz, housing committee, water supply committee, agricultural development committee and women's committee. Interest free loans are given by the NGO through the agricultural committee for planting, fencing etc. The water supply committee is in charge of the operation and maintenance of two local water supply schemes which were funded by the NGO. The women's committee is essentially a thrift group. It is given matching contribution by the NGO to the savings generated from among the members. The women's committee is also running two retail shops selling essential commodities. Its fund is utilized for giving loans at interest rates decided by the group. Repayment has so far not been a problem.

Eight tribal animators are working for the NGO. They have been given proper training. The achievement of the NGO in ensuring participation was rendered easier by these motivators. This caselet also indicates the essentially slow process of scaling up of participatory activities and the need for community based organizations to nurture local involvement.

7.2.13 Employment Generation Programmes-Jawahar Rozgar Yojana(JRY) and Employment Assurance Scheme(EAS)

The major employment generation programmes under implementation in Attappady are JRY and EAS implemented in 1993. The JRY has two main streams. About 80 percent of the funds are routed through the village Panchayaths for implementing schemes prepared by panchayaths themselves. The remaining funds are routed through ITDP for implementation. The main objective of the JRY is to provide wage employment to landless and other poor labour during the lean season and create durable rural assets which are continuing to benefit the rural poor. The EAS is similar to the JRY and the only difference is the guarantee element, i.e. the assurance of 100 days employment to two adults of the family.

The salient features

- 1) The choice of the scheme is to be based on local need as determined by the local people and brought to the attention of the panchayath. Even in the

case of ITDP schemes the panchayath can send proposals justifying the priority.

- 2) The contractors are banned from even indirect involvement in these schemes. The implementing agency is the beneficiary committee of the local people including panchayath president and members. Once a beneficiary committee is selected it has to identify a convenor nominee who would enter into an agreement with the ITDP /Panchayath for executing the scheme.
- 3) Under the schemes especially the EAS the local people have to be provided with work during the lean season.
- 4) JRY provides for social audit meaning that local people have the right of access to information on all aspects of the work.

7.3. Contract works in different villages

7.3.1. Hamlet Protection works in Dasannur

Hamlet protection work was taken up in Dasannur village of Attappady at a cost of Rs 4 lakhs in 1980. Dasannur hamlet has the largest number of educated tribals and many of the first generation educated people of Attappady are from this hamlet and a good number of the ooru people had land. They felt that they needed some schemes for land development and improved irrigation.

The hamlet came to know about the new EAS scheme through local tribal council. It was only after the sanction of funds for construction and the commencement of construction, the ooru people realized that it was going to be a three foot high compound wall enclosing the entire ooru. Though they did not like the idea of having a wall around their hamlet and they protested against it, they did not stop the work as they felt that being a free gift they should not discard it. It did not occur to them that they had the right to decide the kind of work which would benefit them. Thus Dasannur became the first tribal hamlet in the whole of Attappady, with a compound wall around it.

The local people could not supervise the work as the quantities involved, the specifications and the standards were not revealed to them. Local labour was used except for skilled works. At first the minimum wage was not paid. But due to the intervention of educated tribal youths the authorities were forced to pay the minimum wage. Other than receiving the wages the ooru people did not bother to check the quality of the work as they did not know any thing about the guidelines. The quality of work was found to be very poor.

7.3.2. Check –Dam in Sholayoor Hamlet

When the Employment Assurance Scheme was launched the prospective contractor along with the panchayath member came to the Sholayoor Hamlet of 120 families and suggested that check-dam would benefit the agricultural development of the hamlet. This contract work was started in 1994. This was accepted by the ooru people and they pointed out a suitable site for putting up a check dam which would give the maximum command area. The general body meeting of the ooru people was never called for selecting the beneficiary committee. A meeting of just 20 persons selected by the contractor met in the village extension office.

However, the quality of this work was the best among 27 works, as the contractor had personal stake in it as it benefited his land most. The ooru people made only muffled protests which were easily contained by the contractor. The role of ooru Moopan needs special mention. Since he had executed the formal agreement with the ITDP to do the work as the nominee of the beneficiary committee, he could easily have insisted on at least the location of check dam at a site beneficial to the ooru.

7.3.3. Side Protection works in Kulkkoor Hamlet side

The Kulkkoor hamlet lies at the borders of Attappady. A stream by name Kodungrapallam flows along the edge of the hamlet. During the rainy season because of degraded hill slopes floods were common which used to eat away stream banks causing anxiety to the hamlet people and the banks of the stream needed to be protected. This idea was capitalised by the panchayath president to get a pucca side protection work sanctioned under EAS for Rs. 4 lakhs. The local

people confirmed that the bank could be protected properly using vegetative methods. Yet it was decided to go in for pucca side protection works using cement and rubbles. The general body of the ooru was called and a seven member beneficiary committee was selected.

A local tribal who had no experience in construction was chosen as the nominee but the Panchayath president actually executed the work. There is an active youth club in the hamlet. The club members wanted to undertake the work, but their request was turned down. Because of the interest shown by the youth club, some youngsters kept a tab on the work done. Going by their calculation, which mostly tallied with those of the tribal nominee, the actual investment in the work is only about 30 to 35 percent of the amount paid to the contractors by ITDP. This action was also an utter failure.

7.3.4. Road works in Vadkottathara

This hamlet is situated almost on the side of a black topped road. Fund was allotted for its functioning in 1994. Without the request of the local people, at the instance of the contractor who is now a member of block Panchayath, construction of a concrete road to the river was taken up. The ooru people were well organized and they wanted their agricultural land to be developed and when this was not sanctioned they boycotted the work. Five workers from the ooru participated in the construction activity but they too left in protest against the poor quality of the work. The road serves no useful purpose to the local people. Earlier there was a well-beaten track to the river and now the road, which stops abruptly, is causing more inconvenience. Before the start of the work, no beneficiary committee was convened, as it was known that the local villagers would oppose the road construction.

7.3.5. Land Development Work in Tachampady

This is an extreme case but a good illustration of the essentially non-participatory character of the selection and execution of local development works under Employment Generation schemes by elected Panchayaths in 1994. A relatively well off tribal family having about 10 acres of cotton cultivation was

approached by the Panchayath vice president to lease out land to him in his private capacity .

Just before the land was to be returned a scheme was approved under JRY by the local Panchayath in the guise of developing agricultural land of tribal beneficiaries. A sum of Rs. 60,000 was spent on this work. That was done by benami. There have been protests and complaints including press reports, but the work had been completed and the payment was made.

The above mentioned development activities show how political power could distort the development process itself overriding the participatory safeguards and exploit groups/individuals.

These five instances vividly illustrate dramatically the non-participatory and even anti-participatory character of the implementation of Employment Generation programmes in Attappady. The essence of tribal development strategy in Attappady has been development of infrastructure particularly road and housing. It is estimated by ITDP authorities that 70 per cent of the funds have been spent on these two items in the last 15 years. While the emphasis was on the creation of infrastructure, there was no attempt to ensure that the infrastructure would be used. A probable reason for the preference for road work is the scope for profit in road works due to the possibility of manipulating estimates related to earth work, transport of materials etc. And a poor quality road invites less criticism than a poor quality school building as the latter implies risk to life.

Employment generation opportunities thrown up by even the construction of unrequired roads were not properly used. The inappropriate development strategies are clearly evident in the agriculture and soil conservation schemes of Attappady. The tribals had an extensive knowledge of agriculture and produced a variety of crops both suited to the locality as well as sufficient to meet their nutritional needs. The tribals used to breed a variety of seeds of plants giving different kinds of food with different nutritional properties (e.g. millets, ragi, beans and dhal varieties etc.) maturing at different seasons having different root systems tapping, different soil zones and having different tolerance levels to draught, wind or rain. In short, they knew how to make practical, use of bio-diversities. Agriculture on the whole was

given low priority in the development strategy, even where it was supported, the conventional cash crops, with requirement of pesticides, fertilizer and irrigation were given importance imposing severe strain on the tribal farmers. But the agriculture department has not done much to arrange input services or marketing. Survey revealed that traditional crops still covered about 53 per cent of the area cultivated by tribals. Yet no effort was made to improve the productivity of these crops which in fact had declined over the years.

7.3.6. Soil Conservation scheme

As regards the soil conservation schemes the accent was on the construction of bunds and not on agricultural development after the conservation of soil. Large tracts of 'bunded' wastelands are visible in Attappady. The tribals have the right to carry out the work on their own as stipulated in the Kerala Land Development Act. But one of the few skills possessed by the Attappady tribals is the ability to construct stone bunds. A 1988 report of ITDP showed that the rate for one meter of stone pitched bund was Rs 7.50 of which the tribal got only an amount between Rs 1.50 and Rs. 2.50 as wages the remaining amount was shared by the middle men and officials. Fifty percent of the amount spent on soil conservation was given as loan and this was hidden from the tribals who because of illiteracy and lack of awareness did not understand the intricate documents they signed. The extent of misuse can be learnt from the fact that from 1966 till 1995 a huge sum of Rs 12 crore has been spent on this item of work. Direct observation in 23 hamlets revealed that in all these places, the bunds stand on relatively barren land with no attempt to develop agriculture in the concerned areas.

Similarly education and health schemes also focused on modern method and ignored traditional systems. The Land Reform policy was implemented without understanding the tribal land tenure system. Even though a proposal for legislation to prevent alienation of tribal land was sent from the block office as early as in 1962, formal legislation was enacted only in 1975 and it was notified and brought into force only in 1986 with retrospective effect from 1982. Though about 2500 applications have been filed for restoration of land, no land has been restored even after 10 years. A policy decision has been announced by the Government to amend

the act to take away the retrospective effect which would mean that the tribal would not get back any land.

The forest laws which don't take cognizance of the traditional rights of tribals have shut them off from a valuable buffer resource base which they could tap in times of need. The Government decision to grant absolute titles to settler who encroached upon forest land as on 1st January 1977 while ignoring the centuries old rights of tribals over forest has caused resentment among the tribal people.

7.4. Development measure of Attappady Eco-Restoration Project

Destruction of forest in India has many causes which may vary from state to state. Destruction of forest is proceeding apace in Kerala due to competing and conflicting pressures on limited land resources. The Government of Kerala has responded through a new policy (participatory or joint forest management) in order to halt the alarming rate of forest degradation and destruction. However, without additional financial support from international funding agencies, this initiative would not have the desired impact. The state of forest in Attappady is worse. The challenging task to execute better forest protection and rehabilitate the degraded areas can only be fulfilled through adequate funding of forest protection and conservation measures tailored to the specific requirements prevailing in the Attappady area. The loan provided by the Japanese OECF (Overseas Economic Cooperation Fund), to be implemented by the Attappady Hills Area Development Society (AHADS) as implementing Agency is expected to contribute to these efforts to promote better forest conservation measures, and a more sustainable use of forest resources through participating rural residents.

The Attappady Wasteland Comprehensive Environmental Conservation Project (AWCECOP), in short, the Attappady Eco-Restoration Project, is a Rs. 219,321 crore (JY 6338 million) sustainable development project funded by the Japan Bank for International Cooperation (JBIC) and carried out with the objective of restoring the ecosystem as well as the livelihood systems of the people of Attappady, both of which had undergone severe degradation over the years due to various reasons implemented in 1996..

Numerous climatic and anthropogenic factors have worked cumulatively to inflict severe damages to the ecology and the livelihood support systems of the people in Attappady. Apart from physical and climatic factors peculiar to the region, massive encroachments over forest and cultivated lands, introduction of unsustainable cropping systems, crops and grazing etc. had all contributed to inflicting heavy damage on the ecosystem. The severity of the damage had become all too evident in all components of the ecosystem – water, soil, plant communities in forest and agricultural lands and the dependent tribal communities etc.

As a the result of deforestation in the catchments and also due to the presence of several diversion schemes, water has become unavailable when and where it is needed, creating greater dependence on ground water sources. Most of the perennial springs that once dotted the hilltops of Attappady have disappeared. Water quality has worsened considerably and the polluted water used for drinking and cooking has become a cause for diseases and ill health of the people of Attappady, especially the tribal people, of which tribal women are suffering much.

The Prime Objective of the Project

Main objective of the project is “Economical restoration of degraded Wasteland in Attappady and development of replicable models of participative eco-restoration so as to prevent further degradation and promote a sustainable livelihood for the local people (with special emphasis on tribal population) and in harmony with the resources base”.

“The project, AWCECOP was formally inaugurated by the then Honourable Chief Minister of Kerala on February 11, 1996. But the project implementation was started only by April 2002 since AHADS had taken some grass root level preparatory works such as awareness campaign, formation of people’s bodies, capacity building of beneficiaries and planning activities etc. During this period another important milestone to be underscored in the history of AHADS was the inauguration of total hamlet development programmes for Scheduled Tribe and Scheduled Caste by His Excellency the President of India on 17th November 2002.

The Vision of AHADS

The components of an ecosystem- soil, water and plant life are harmoniously related and holistically interlinked to one another as well as to the social and human systems. Utmost care should be maintained when development programmes are devised and implemented so that these links are not severed or damaged.

The present crisis of Attappady is manifested in denudation of hills, loss of forest cover, severe soil erosion, recurrent draughts and scarcity of water, frequent crop failures, changes in climate etc, and above all, the degradation of human life dependent on the ecosystem has its origin in the unmindful interventions on each of these components of the ecosystem.

Massive felling of trees, unscientific cultivation practices and grazing, inappropriate and short-sighted development interventions etc, have contributed to the wretchedness of the ecosystem as well as life in Attappady. The Adivasis, are the worst affected because of alienation from land and natural resources as well as a culture linked to nature amount in to destruction of their life line. In this context, the Attappady Eco-restoration Project has been envisioned as a comprehensive participatory project that aims at rebuilding the capacities of the people within the ecosystem for carrying out sustainable interventions for ecosystem and social system resuscitation.

A comprehensive ecosystem restoration project requires its own managerial and organizational structures. In tune with the imperative of restoring and augmenting the smallest natural and human resources and implementing the activities in a decentralized, democratic and transparent manner, the project has been designed in such a manner as to operate at the level of the smallest micro-watershed. Ecologically and socially sustainable development of any region or society requires wholehearted participation of each and every individual. Building up a solid base of information and awareness, as well as capabilities and enthusiasm among the participants and an appropriate institutional system for ensuring the sustainability of development is the key objective of the Attappady Eco-restoration Project.

The concept of watershed development recognizes water as the most fundamental, vital, natural unit of living systems on earth where its interaction with soil sustains life. Accordingly, the entire project area has been scientifically mapped out as 15 interlinked macro-watersheds with natural boundaries. Corresponding to the 15 watersheds, 15 Development Units (DUs) have been conceived as the middle level project management structure.

There are 146 micro water sheds which is demarcated from each water shed where User Associations (UAs) have been organized to coordinate the implementation of micro action plans. Altogether, 92 UAs have been formed to represent the 93 micro watersheds within the Charitable Societies Act, 1860. At each identified project implementation location, Local Action Groups (LAGs) have been organized as a participatory body of all the beneficiaries/users. In addition to that as part of sustainable livelihood options, Income Generation Activity Groups are also being constituted by User Associations and OoruVikasana Smithies.

Recognizing the uniqueness of tribal societies such as their traditional kinship and communities, exclusive Ooru Vikasana Samithis (OVS), (Hamlet Development Societies) have been formed in each tribal hamlet ('Ooru') within the project area. So far 160 OVS have been organized covering each and every one of the 189 tribal hamlets (in some cases, by combining closely situated hamlets. These packages provide for soil and water conservation activities, planting fruit trees, construction of pathways to the hamlets and common cattle sheds, nutritional food grain cultivation, propagation of smokeless chulahs and energy efficient hot boxes, establishment of biogas units and various income generation activities.

The project implementation structure has been further decentralized to meet functional and locational requirements. Joint Forest Management Committees (JFMCs) have been formed to take up re-forestation and forest conservation activities in public and government owned wastelands. The members of the JFMCs are mostly adivasis living within or in the periphery of forestlands.

In addition to above root level organization a women organization called 'Thaikulasangham'(TKS)was also evolved as part of eco-restoration project to resist social evils like illicit liquor, distillation and ganja etc. 110 such

organizations have been already formed at different tribal hamlets. With respect to promotion of sustainable income generation activities, neighbourhood groups called Income Generation Activity Groups (IGAs) are also being constituted by AHADS through User Associations and Ooru Vikasana Samithies. Main objectives of those groups are to promote saving habits and capacity building for commencing sustainable livelihood options.

Project planning

Three distinct but interlinked levels of project planning and management have been adopted for the implementation of the Attappady Eco-restoration Project:

1. Perspective planning at the Project level through AHADS
2. At the Watershed level through the Development Units (DUs)
3. At the level and micro-watershed through the User Associations (UAs)

The Micro watershed level project planning and implementation can be further differentiated into:

1. At the level of activity locations through Local Action Groups (LAGs)
2. At the Adivasi hamlets through Ooru Vikasan Samithis (OVSS)
3. Interventions for forest conservation and afforestation through JFMCs

Developmental Units (DUs)

At the Development Unit level, a Co-ordination Committee has been set up, consisting of the elected representatives and the department officials. The role of the DU level Co-ordination Committee is mainly advisory, but it is also meant to avoid duplication of works by various agencies working in the same area. The development Unit Co-ordinators (15 Nos) have been selected from amongst the volunteers

User Associations (UAs)

The UA is the field level planning and implementation unit of AWCECOP. It consists of nine executive members elected from the Local Action Groups at the

micro watershed level. A minimum of four out of the nine members of a UA should be women. It is also stipulated that either the secretary or the treasurer of the UA should belong to a tribal community.

Major components of the project

For the achievement of the objective of eco-system restoration and sustainable livelihood restoration through a comprehensive long term action programme, the project initially visualised activities in the following areas.

1. Soil and water conservation
2. Afforestation and forest conservation.
3. Agro forestry and agronomic activities.
4. Agriculture development in private lands.
5. Infrastructure development
6. Ecologically compatible Income Generating activities.

Agronomy and Soil conservation

The activities of the agronomy wing are oriented towards protection of private wastelands in Attappady against further degradation and modification and improvement of existing cultivation practices in order to make them ecologically compatible.

The activities carried out with these objectives include popularisation of several horticulture species and sericulture species etc, fodder and fuel wood crops. While distributing planting materials and recommending a crop mix, available data on slope of the land, characteristics of the soil, rainfall etc, is taken into consideration.

Soil Conservation

The Attappady region had once been biologically rich with dense forests and fertile soil. But the present Attappady is a heap of denuded and rocky hills. The water table in the soil has dipped down considerably. Recent studies show that in the hillocks of Attappady, where the slope is up to 30 degrees and the annual rainfall is around 1000-2000 mm, the rate of soil run-off is of the order of 130

tonnes per ha per year. The soil conservation measures carried out under the project aims at reducing this to 15 tonne/ha/year.

The strategy for soil and water conservation adopted by AHADS is based on the principle of watershed-based integrated land and water use management. The measures adopted include both structural as well as biological interventions. In the initial stages of project implementation, the activities of the Soil Conservation Division were concentrated on steep slopes where immediate interventions were required. The total area of private wastelands to be covered under the project is nearly 19,000 ha. This vast area is spread over 15 watersheds (or DUs) falling in three panchayaths in the Attappady Block.

Soil and water conservation works consist of a comprehensive package of practices including fully plugging, construction of contour bunds, terracing, digging pits and trenches and water harvesting through construction of check dams and vegetative riveting. Establishing contour channels and embankments, protected with vegetative structures, is adopted. Pitting and trenching are carried out. Brush wood check dams and Gabion structures are constructed.

Forestry

Forestry activities under the project are carried out in 270 sq. km. of degraded forest areas in Attappady. Though different wings of the Kerala Forest Department had undertaken afforestation works and biomass conservation programmes in the degraded areas in the last one or two decades, they had not made much positive impact. The forestry works are being implemented on the assumption that by intensive implementation of afforestation activities in 100 sq.km, of degraded areas, it will be possible to protect the whole of the identified 270 sq. k.m. The remaining degraded areas are mostly inaccessible hilltops, rocky patches and grasslands that cannot be easily destroyed. The forestry activities are being carried out in a participatory mode through the Joint Forest Management Committees (JFMCs), the USA and the OVSs. The JFMCs have been formed in accordance with the perspective of the Ministry of Environment and Forests in the Union Government. A total of 25 JFMCs have been formed so far under the project area.

Infrastructure Development.

Despite huge sums of money being spent on construction of roads, bridges, etc. in the developmental plans implemented by the Central, State and local self-government institutions, Attappady still lacks good roads connecting its far-flung tribal settlements with main centres of commerce and culture. The condition of pathways connecting the hamlets with each other is also quite deplorable. Under such a context, the civil engineering division of AHADS plays an important role in meeting the objective of the AWCECOP. All soil construction structures that require high levels of technical input and expertise are carried out by the division.

Water Resources Development

Development of water resources in Attappady is a key activity under the project. The activities carried out by the hydrology division of AHADS include introduction of lift irrigation and gravity irrigation systems, construction and renovation of wells, ponds, irrigation channels, subsurface dams and check-dams, digging of bore-wells where they are necessary, propagation of rainwater harvesting technologies etc. The division also plays an important role in investigation and surveys based on the Participatory Rural Appraisal reports.

Ecologically compatible Income Generation Activities

In the last 50 years several efforts at providing income-generating activities to the people had been taken up in Attappady. Establishing training centres, providing training and organising industrial co-operative societies had been the usual method adopted in Governmental plans in this direction. However, most of these efforts failed because of lack of continuity of management, failure to internalise the entrepreneurial skills required, poor management of working capital and inventories and failure in marketing. A few private entrepreneurial efforts, such as making of bricks, had met with some success but had been extremely harmful to the environment.

Out of a total population of about 62,033 people in Attappady, below poverty line (BPL) people constituted 61% of the population in 1991, which went up to 85% in 2001. When such large extent of marginal people exists in the project

area, it would be unrealistic to expect them to pay attention to long-term environmental conservation through an educational programme. IGA is one of the Project components for achieving the former purpose, and an Environmental Literacy Programme is going to be implemented for the latter.

Project restructuring

Environmental restoration is expected to bring about progressive change in the socio-economic life of the local people through the improvement of the biophysical resource base.

However, the socio-economic crisis, which is a cause and effect of the environmental degradation, largely remained unaddressed in a direct manner in the project. It became all the more obvious that the twin issues of environmental degradation and economic destitution cannot be solved without addressing the basic socio-economic maladies. For instance, the acutely felt need for adequate and good quality of drinking water, housing, healthcare systems, educational improvements, improving access, pathways to the tribal hamlets, energy supplies etc. are also immediate requirements. Many of these basic deficiencies hampered the life of the population of Attappady

Accordingly, this issue was brought to the notice of the High Power Committee. This issue was brought to the attention of the Chief-JBIC during review discussion with the Hon. Minister of Rural Development on 11th July 2001 and with the Hon. Chief Minister of Kerala on 12th July 2001. Subsequently, JBIC representative requested AHADS on July 24, 2001 to submit a proposal for restructuring the Project in order to include social development components.

In August 2001, AHADS submitted a proposal to JBIC on restructuring the project, expanding its scope to include, socio-economic improvement activities and additional environmental components. JBIC sought clarifications on a number of points which were provided and, subsequently, in December 2001, JBIC mission held discussions with AHADS on the proposals. On JBIC's request, detailed project proposals were submitted for each item.

In his follow up report dated 24th July, the Chief Representative of JBIC confirmed that such revisions including the social sectors in the Project had requested AHADS to submit a proposal for restructuring the Project. Accordingly the revised project was prepared and was approved by Government of Kerala, Government of India and JBIC. It was pointed out that programs for socioeconomic development of the local communities, the tribal population in particular, ought to be incorporated into the Project in order to make it truly comprehensive without requiring additional funding.

The new components added are grouped as follows:

1. Hamlet-based development

- Housing and landscaping
- Drinking water supply
- Environmental hygiene and sanitation.
- Development of non-conventional energy
- Widening and repair of access paths
- Anti-ganja programme.

2. Social development of weaker sections

- Human Resources Development
- Upgradation of schools
- Additional facilities for lab, library and playgrounds.
- Improving hostel facilities.
- Scholarship and coaching programme
- Environmental literacy programme
- General educational measures.

Women's Development

The severe ecological degradation and the resultant competition over resources have created and over the time aggravated various inequalities in the

social life in Attappady. As a result, the tribal communities on the whole have been greatly marginalized, women among them now bear the worst impacts of this process. The unequal gender division of labour and unequal access to resources, knowledge, and decision-making that have resulted from the depletion of natural resources had several adverse effects on the lives of women in Attappady.

The burdens they only bear such as procurement of water, fuel and fodder have become heavier. Income from collection of minor forest produce has dropped. Unpaid and invisible works have multiplied. Being forced to consume less nutritious food has adversely affected the well-being and health of women. The vulnerability of the social life of women is more manifest in the tribal areas with adverse female sex ratio. Low female literacy, greater seclusion of female and limited access to arable and fertile land is the main problems. Women's right violation and atrocities on women have increased. Social life in Attappady presents the archetypal linkage between nature and women, though, paradoxically as manifested in the linkage between exploitation of nature and exploitation of women. Recognising this link and acknowledging the imperative of conscious efforts will reverse the situation. AHADS had striven from the inception of the project to ensure women's participation in all activities.

The constitution of all grass root level organisations of the projects like UAs, LAGs and OVS, AHADS insists on at least fifty per cent participation of women. Since the appointment of a new Assistant Director in September 2001, the Women's Development Division has been able to plan and implement various activities addressed to the specific requirements of women involved in the project activities. Leadership training programmes have been conducted for women office bearers of UAs and OVSs. The division takes up training and awareness building activities at the village level. Awareness camps are being held on popularising thrift and credit operation among women and the need for fighting alcoholism and addition to ganja. The latter have become a major social evil in Attappady.

Thaikula Sangham

Thaikula Sangham as an institution for women development was launched to prevent alcoholism among the youth in the tribal hamlet. A total membership of

10 member women participation is included in it. It is not a registered body. The functions of Thaikula Sangham were started in 2001-02. Officially one leader is selected among the tribal women and her post is known as “Thalaivi”. Eminent personalities from AHADS will take classes for them once in every month. Following are the programmes conducted for the women development.

1. **Leadership Programmes:** Thaikula Sangham conducts a leadership programme for providing training. Fifty women from each hamlet will participate in the training programmes. They are the representative figures in the hamlet. Residential training of three days will be given. Trained extension officers will take classes for the tribal women. Basic motive of this training is to provide classes for tribal women to fight against the practice of alcohol consumption in the hamlet. Trained tribal women brawl strongly against the alcoholic trend in the society.
2. **Women Empowerment Programmes:** socio-economic problems in each tribal hamlet are serious obstacles to their development. Thaikula Sangham particularly works for the empowerment of tribal women. It means improvement of women’s capabilities, defence against discrimination and inequality at the individual and social levels. A fair access to resource is essential for empowering women without which the confidence in protecting against discrimination cannot be strengthened.
3. **Cluster Meeting:** every each month a cluster meeting will be conducted in one of he selected hamlets. The members present in the meeting are the Secretary of Ooru Vikasana Samithi, President of the User Associations and 10 members of the Thaikula Sangham. In this meeting the problems of tribal women in Attappady are taken in to consideration and the resolution will be sent to Women’s Commission. Women’s Commission takes necessary action against the charges.
4. **Anti Addiction Programmes:** Programmes for anti addiction camp is conducted in every hamlet. In addition to these, training for school children of classes 5-10 is to be given. Manava Samrakshana Abhaya will cluster with AHADS for providing training to the needy people. All these programmes are

intended for the upliftment of the tribal women and prevent the tendency of alcoholism among the tribals.

Thaikula Sangham is working for the prevention of production, sale and consumption of illicit liquor. They have succeeded in their venture to a greater extent within the hamlet. However the production and sale is rampant within the hamlets. Because of the geographical peculiarity of Attappady, it is difficult to trace the brewing centres and book the culprits. Thaikula Sangham is not getting the required support from the police and excise. Many times they are beaten up by the illicit liquor lobby and also they are facing severe threats from the lobby. No development activity will be beneficial to the population unless propagation of illicit liquor is controlled. In these circumstances Thaikula Sangham needs more support from the enforcement agencies for their mission.

Thaikula Sangham is fighting for the social cause even daring physical threats. At the same time the same illicit liquor lobby is very much active in connivance with some powerful sects of society. Even after the 10th year of prohibition the area has mass problems connected with production and consumption of illicit liquor, e.g. increased rate of crimes, suicides, dropouts, and domestic violence and health issues.

Chapter 8

Summary and Conclusion

SUMMARY AND CONCLUSION

In olden days, the tribals lived in harmony with forest and utilized what they needed. In fact, the forest met all their basic needs. But now, there has been significant change in man-forest- interaction in tribal areas. This is brought about by a variety of factors such as inaccessibility to forest resources, land alienation and annihilation of resource base of the tribals. Because of high rate of deforestation certain hamlets do not obtain fire wood and thatching materials sufficiently. However, not much attention has been paid to record these changes and the possible impact on the socio- economic conditions of the tribal people, who are the under privileged in the society.

In order to understand the full implications of the problem, micro- level study was considered most appropriate. Keeping this in view a detailed study was conducted in the tribal areas of Attappady. Attappady was selected because it differed from the rest of Kerala. The area is extremely backward with high incidence of poverty and low level of human development. This is particularly true among the tribal population. A study conducted by the Planning Board in 1975 classified the area as the most backward block in the whole of the State. The situation does not seem to have changed much.

It is the only Tribal Development Block in Kerala. In a sense Attappady could be considered as the microcosm of backward India. It exhibits the typical characteristics of the poverty- stricken area with environmental degradation, socio-economic exploitation, policy induced process of poverty, backward in agriculture, lack of employment in secondary and tertiary sectors and absence of organization of the poor etc. A study of such an area has been considered as worth noticing.

The study was based mainly on primary and secondary data. Primary data were collected from 300 households located in the Attappady from the three panchayaths of Agali, Pudhur and Sholayoor. The samples were selected on the basis of simple Random sampling method. The secondary data were collected from published reports and historical records. The summary of the major findings and conclusions of the present study are given in the following pages.

8.1. Summary

Forest has been the life line for the survival and sustenance of the tribal population from time immemorial. Writings of the past indicate that forest in the pre-British days was luxuriant. Agriculture too flourished without seriously hampering forest. In spite of the several favourable measures taken by the Government through various development activities, the economic conditions of the tribals in the mountain lands is still deplorable. Many factors were identified for this deplorable situation. One of them is the massive in-migration of people from thickly populated plain land to this thinly populated mountain slope. The immediate consequence of such migration was large scale deforestation. It was followed by the introduction of different land use activities, quite different from the traditional ways of land use in this region. In the course of events, the tribals lost their land, demographic structure of Attappady changed, cropping pattern got diversified, traditional techniques of production were ruined, new crops and new techniques of cultivation, and the entire cost and return structure of production under went radical change.

Till the second quarter of the century, the area was inhabited only by tribals. However, since then it witnessed massive influx of people from the plain land and the entire demographic profile of the region changed. Uncontrolled deforestations, over-grazing of cattle and introduction of agricultural practices inappropriate to the ecological and agro-climatic conditions of the region, have changed the entire demographic structure of Attappady. The area is now characterized by wide crop diversity handed down by the history of succession among both settlers and the indigenous people.

Tribal women are the worst affected in the process of change. Displacement for development project has deprived tribes folk of their land and forests from where much of their food came. Today they have to walk much longer distances than in the past to collect food and fodder

Development schemes have effected a through change in the socio-economic and cultural life of the tribal women. Private property in land and recognition of husband as the head of the family has created a negative impact on

the status of women. Improved facilities of development like transportation, health, housing and technology have not reached women. Women continued to work harder and have no time to enjoy the fruits of development.

8.2. Conclusion

The tribal society was once self-reliant. They had community based, eco-friendly and self governing political life till the time outside intervention of the settlers and Government began.

Tribal women in traditional tribal society enjoyed great freedom and gender equality. The three tribal communities Irulas, Mudugas and Kurumbas were the three original tribal communities in Attappady. The three communities had their own religious, cultural, political, social and economic life. Their culture was the motivating and controlling factor in their life. Importance of religion has seen a decline with rites and rituals being performed, mechanically, without traditional fervour and gaiety. Distinct important traits have disintegrated with the development of apathy for traditional songs, dance and ornaments.

The health condition of tribal women depicts a very dangerous picture, the primary health centers do not have sufficient medicines. The conditions of the sub-centers are also very pathetic. Whether deliveries take place at the home or in hospital, the tribal mothers are not healthy enough to deliver healthy babies. Almost all of them are horribly anemic. Most of them suffer from deficiency too. It is dangerous for a pregnant woman to have a hemoglobin count below ten. But most tribal women have only six or seven counts. Eclampsia (high blood pressure and seizures) is very common among the tribal women as compared to other women.

Educational facility in Attappady is very poor. Drop out rate in schools is higher than that in other parts of the state. The school atmosphere is completely different from what they are used to be at home. Students are not regular. If there is a festival, they disappear for weeks. Distance from home to the school is another serious problem faced by the students. The facilities in tribal hostels are not very satisfactory. The hostel is run as part of the ITDP, 35 children share one room and

there are only four bath rooms in the entire hostel. So horrible is the condition of the hostels for school children and so outbreaks of cholera, dysentery and other diseases are common.

The major determinants of livelihood of the tribals in Attappady are possession/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 the tribes. More than 50 per cent of the tribal women still remain illiterate and there are wide inter-community differences in educational achievements. Lack of electricity is a major problem faced by the Kurumabas. More than 90 per cent of the Kurumaba households are still not electrified.

Per capita land availability has come down considerably and around 95 per cent of the households have neither private nor forest land. Kurumba community still depends much on forest for their livelihood. Irulas are relatively well-off compared to the other two communities.

External intervention in Attappady is essentially a continuation of the out migration process to Malabar which had its origin in Central Travancore. Some people from Tamil Nadu also migrated to this region even earlier. The early settlers were rich land owners from the plains who had direct influence over *Jenmis*. The main motivating factor for the inflow of these people to the region at the first stage was acquisition of land for extraction of forest timber. Cultivation became the major motive only during the next stage.

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 modern types. The Malayali and the Tamil settlers brought in to the area a variety of crops which aimed at catering to the market for money. The tribals have been forced to accept many of these crops to supplement their livelihood. Kurumbas, however, continue to cultivate major part of their land with traditional tribal crops (under shifting cultivation). Inadequate irrigation facilities, poor climate, poor quality of land are identified as the major reasons for decline in dependency on land as the major source of livelihood.

Wages received by the tribal women are very low. And the number of days they are engaged in hired labour in a week at the most is maximum of two days. The main sources of wage labour for tribes folk are work in the land of non-tribes during the agricultural season, work in soil conservation programme, construction work offered by contractors etc. The participation level of tribe's folk in government service is a mere percent only. Number of days they are engaged in wage labour are also very low. Majority (75%) get 6-10 days in a month as wage employment.

Compared to other sources of livelihood wage contributes a major part of tribal's household income. Income from other sources, namely, livestock, forest products, and agriculture is relatively low among all the tribal communities. 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. Agriculture, for most households, is an activity taken up during periods when opportunities in wage labour become scarce, and only as a secondary source of income. Forest dependency is higher among Kurumbas than among Irulas and Mudugas.

The expenditure pattern of the three tribal communities shows a common nature. They utilize about 61 per cent of their income for food. They spend very little for education, medicine, repair of their houses, and fuel and lighting. Other important expenses they incur are on religious and cultural activities. Their earnings are less than their expenditure and consequently they are forced to borrow and that result in alienation of their land and bondedness.

Deforestation affects very badly the life of the tribal women. Disappearance of many varieties of species from the forest through deforestation led to deterioration of tribal life. Health condition of the tribals depends to a very great extent on forest resources. Shortage of water adversely affected the cultivation of the tribals. Availability of fuel became scarce due to deforestation. Only a proper development strategy can improve the condition of tribal women.

Many factors were responsible for the present situation of the tribals. Lack of employment opportunities, poor land productivity, exploitation by the powerful

sections of the society, poor health and related diseases, low level of education and skills, denial of their access to forest, no way to borrow money when they are in need of money are major among them.

Non availability of water is one of the major problems faced by the tribal women. Most of them depend on ponds for water. But now they have to cover a long distance to draw water. In some of the hamlets they have to depend solely on rain water. Availability of rain is also in very small degrees.

Collection of Non Timber Produce is one of the important sources of the livelihood of the tribals. In the traditional tribal economy they used to gather enormous varieties of edible tuber crops, fruits, cereals, mushroom, leafy vegetables, honey, oilseeds, fuel wood etc. Due to deforestation and the related changes the present economic structure of the tribal economy has changed and that adversely affected the sources of their livelihood.

None of the projects implemented here so far has considered the peculiarities of tribal culture and belief. There are sharp disparities in the health care services available to remote tribal regions and mainstream Kerala. The state health department takes an indifferent towards the health issue of tribal communities. There has been no comprehensive survey of health and socio economic status of the tribals since 1992. Instead of seeking permanent solutions to the problems faced by tribals, authorities indulge in stop these arrangements. For example, when starvation and anemia became acute free rice and iron tablets were distributed. When lots of money is spent in the name of tribal development it should not be difficult to ensure basic health care services to the tribal communities.

In the shift from traditional tribal society to the modern welfare oriented society, development processes have neglected both tribal women and forest environment. Services in the field of health, education, and environmental spheres are too inadequate to bring about any significant improvement in the social and economic life of tribal women.

A comparative analysis of the three tribal communities using the crucial indices of land ownership, income, employment, education and housing reveals that the present socio-economic conditions are very depressing. The indices of development such as the size of the land holdings, income, employment, education, health, housing and their dependence on forest substantiate the above conclusion.

In spite of the various development programmes and schemes implemented by the Government, for their upliftment, the economic standards and living conditions of the tribals are still backward. This can be attributed to two factors. One, the development schemes are not implemented in quite earnestness and they monitored throughout due to inadequate communication facilities and two, inaccessibility of the tribal settlements. The traditional outlook and negative attitude of the tribals to development and absence of employment avenues in the secondary and tertiary sectors are the major stumbling blocks which keep them in a backward state.

8.3. Suggestions

The tribals consist of a well-knit cohesive group. They depend on forests and live in mutual co-operation and support. This practice links them with the economic system and environment in which they live. Any change in the system will have a pervasive effect on other systems.

Land is the basic resource of the tribals without which their economic condition cannot be improved. Cultivation of traditional food crops such as raagi, chama, maize, millet, pulses and grams is to be encouraged. This will help them to improve their living condition. The agricultural life of the tribals should be re-vitalized. The landless have to be given back their land under the aegis of the government intervention.

Conditions of the educational institutions are to be improved and education promoted. Teachers should give much attention to the tribal students from their primary levels onwards. Conditions of the tribal hostel are to be improved. The congested facilities should be elaborated. The number of tribal hostel shall be improved.

A more balanced health system should be introduced. Conditions of the most of the hospitals are very pathetic at present. Even though they receive some concessions in health care they are not aware of such facilities. The number of hospitals is also insufficient to satisfy their health care needs. Governmental projects oriented for boosting health shall be improved.

The traditional system of administration that had been dominant among the tribes should be respected and updated instead of imposing alien forms of administration. Autonomous forms of administration permitted under the fifth and sixth schedules of the constitution are to be provided.

A balanced approach to development ensuring political, economic, social, and cultural rights of the tribes and also ensuring equity and social justice, and fair resource allocation, with particular attention to gender equality has to be evolved.

In planning, implementation, and evaluation of projects affecting tribes living conditions and future, tribal's participation is to be ensured. Programmes have to be worked out to promote public awareness regarding tribal situation and eliminate all kinds of threats to the existence of the tribes. In order to give equal opportunities to tribal women, long term strategies that can challenge the existing structure are required.

For the development of tribes a new vision is essential. A vision to build an ecologically sound, non-exploitative, just, non- patriarchal self-sustained society. The most important aspect is participation in the decision making process. Without this there is no meaning of talking about tribal development.

Development has to be based on the traditional beliefs and values of the tribals. The basis of alternative development should be protection of life. At the same time it must respect the social, economic, political and cultural life of the tribals.

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Appendices

SURVEY SCHEDULE FOR TRIBAL HOUSEHOLDS

PART-1

SOCIO-ECONOMIC CONDITIONS

Village /hamlet

House number

Panchayath/ward

0.1 DEMOGRAPHIC PARTICULARS

1. Name of the respondent

2. Age

3. Sex

4. Religion

5. Caste

[a] Sc [b] St [c] Obc[d] General

6. Marital position

7. Status in the family

8. Total number of members in the family

9. Occupation

10. Language spoken

[a] Malayalam [b] Tamil [c] local dialect (specify)

11. Nature of family

[a] Nuclear [b] joint with parents [c] with brothers and sisters

[d] others (specify)

SOCIAL CONDITIONS

1. EDUCATION

1.1 Please state your level of education

[a] Illiterate [b] primary [c] college [d] others (specify)

1.2 Details of school

[1] Name

[2] Place

[3] Distance from residence

1.3 Have you got any aid for your education?

Yes/no

1.4 Have you got any aid for the education of your children

Yes/no

1.5 If the answer is yes, please state source:

[a] Tribal welfare association [b] state/central government

[c] Social organizations [d] others (specify the name)

1.6 Assistance received for education

Sl No	particulars	Sanctioned from	amount
1	Scholarship		
2	Stipend		
3	Fee concession		
4	Grant for purchase of books		

1.7 How much education would you like to give to your children?

[a] Less than seven year schooling [b] complete secondary schooling

[c] Complete first degree in colleges [d] complete an advanced professional degree

[e] As much education as they can

1.8 Do you provide sufficient facilities to the children for their studies at home:

Yes/no

1.9 If the answer is no, please state the reason:

[a] Lack of proper food [b] lack of lamplight

[c] Engaged in house hold and other work [d] lack of proper guidance

[e] any other reason [specify]

2. HEALTH

- 2.1 Do you suffer from any type of illness yes/no
- 2.2 If yes, what is the nature of your illness?
- 2.3 Does your health condition permit you to continue in occupation yes/no
- 2.4 Is the illness is related to the work you are doing
- [a] To a great extent
 - [b] to some extent
 - [c] not at all
- 2.5 Are you being treated for the illness? yes/no
- 2.4 If no, what is the reason?
- [a] Lack of money
 - [b] lack of proper medical facilities
 - [c] others (specify)
- 2.5 If your health condition is not conducive to work place, state the reason for the continuance in occupation
- [a] No other earning members in the family
 - [b] the earning of other members is not sufficient to family needs
 - [c] no alternative occupation
 - [d] others (specify)
- 2.6 Can you get any nutritional diet for balancing your health yes/no
- 2.7 Do you get any financial aid for the treatment of diseases yes/no
- 2.8 If the answer is yes, which is the source of aid?
- [a] Government
 - [b] Tribal welfare fund
 - [c] Social organizations (state)
 - [d] Others (specify)

3. ATTITUDES TOWARDS SOCIAL AND CULTURAL ACTIVITIES

- 3.1 Which is your original inhabitant?
- 3.2 Are you interested in cultural programmes? yes/no
- 3.3 Which type of entertainment you like mostly
 [a] Cinema [b] Music [c] Dance [d] Others (specify)
- 3.4 Are you interested in performing any activity? yes/no
- 3.5 Have you participated in cultural activities? yes/no
- 3.6 Which is your traditional cultural practice?
- 3.7 If you are engaged in dance/music what feeling you have experience?
 [a] Lessening the burden of work [b] Relief to mental stresses and strains
 [c] Interest in the involvement of work [d] Others (specify)
- 3.8 Does your culture have strong relationship with any of the following
 [a] Environment [b] Society [c] Forest [d] Others (specify)
- 3.9 Do you like your culture strongly? yes/no
- 3.10 If yes, what is the reason?
- 3.11 Do you read newspaper /listen to the news? yes/no
- 3.12 How often do you listen to the radio/TV
 [a] Very often [b] Often [c] Sometimes [d] Never
- 3.13 Name of the organizations with which you are associated and state the extent of your involvement in it

Organizations	Yes/no	Name	Members Nominal/active	Official position	Since when
Religious/political Cultural Trade union Co-operative society Welfare society Self help groups					

4. ECONOMIC CONDITIONS

- 4.1 Are you an active income earner for your family? yes/no
- 4.2 Which of the following category of occupational status you belong to?:
- [a] Agricultural labour
 - [b] Cultivator
 - [c] Labor in general
 - [d] Labour in forest department
 - [e] Unemployed
- 4.3 What is your subsidiary occupation?
- [a] Collection of minor forest produce
 - [b] Gathering
 - [c] Rearing of cattle
 - [d] Nothing
- 4.4 What is your income per day?
- 4.5 How many days in a month do you get employment?
- 4.6 What is your estimated monthly income?
- [a] Below Rs.100
 - [b] 100-500
 - [c] 500- 1000
 - [d] 1000-1500
 - [e] 1500-2000
 - [f] 2000-2500
 - [g] 2500 and above

5. LIVING CONDITIONS

- 5.1 Please indicate the type of your dwelling
- [a] Tiled
 - [b] Thatched
 - [c] Hut
 - [d] Others (specify)
- 5.2 How many rooms are in your house?
- 5.3 Please indicate the nature of tenancy
- [a] Rented
 - [b] Owned
- 5.4 Please indicate the status of land on which the house is built
- [a] Vikasana pathrika
 - [a] pattayabhoomi
 - [b] Purchased
 - [c] Purambokku
 - [c] Inherited land
 - [d] Living right from church/mosque
- 5.5 The area of land on which the house is built
- [a] Less than 5 cents
 - [b] 5-10 cents
 - [c] 10-25 cents
 - [d] 25-50 cents
 - [e] 50 cents and above
- 5.6 If you own a house please indicate the value of your house
- [a] Below 10000
 - [b] 10000-20000
 - [c] 20000-30000
 - [d] 30000-40000
 - [e] 40000-50000
 - [f] 50000-above (specify)
- 5.7 Physical assets
- | Land holdings | | forest land |
|--------------------------------|--|------------------------------|
| Private other than forest land | | |
| [a] nil | | [a] nil |
| [b] 0-1.0 acre | | [b] 0-1.0 acre |
| [c] 1.0-2.0 " | | [c] 1.0- 2.0" |
| [d] 2.0- 4.0 " | | [d] 2.0-4.0" |
| [e] 4.0-10.0 " | | [e] 4.0- 10.0" |
| [f] 10.0- 50.0 acre and above | | [f] 10.0-50.0 acre and above |
| Specify area | | specify area |

5.8 What are the sources of fund for the present housee

Source	Amount	Rate of interest
Own saving		
Government agency		
Loans		
Non Government agency loan		
Borrowed from settlers		

5.9 Is your house electrified

yes/no

5.10 Which of the following material possession do you have at home?

Items	Number
Chair	
Table	
Cot	
Alma rah	
Clock	
Fan	
Radio	
Television	

6. DEBTS AND SAVINGS

- 6.1 Are you in debt? yes/no
- 6.2 If yes, please give the following details,
- [a] Amount of debt
 - [b] Percentage of interest
 - [c] Nature of security
- 6.3 What was the main purpose for which you borrowed?
- [a] For house hold expenses
 - [b] For meeting medical expenses
 - [c] For meeting marriage expense
 - [d] For building house
- 6.4 From whom did you borrow?
- [a] Relatives
 - [b] Non-tribals
 - [c] Money- lenders
 - [d] Middlemen
- 6.5 What is the rate of interest?
- 6.6 How is the debt repaid?
- [a] In cash
 - [b] By lending the land to non-tribals
 - [c] By further borrowing
 - [d] Others (specify)
- 6.7 Did you save yes/no
- 6.8 If the answer is yes, what is your annual saving?
- 6.9 How is the saving utilized?

7. EXPENDITURE

7.1 please state the expenditure incurred on the following items during the previous month

Items	Expenditure	Mode of calculations D/M/Y
7.1 House hold expenses Food Fuel& lighting Clothing Education Medicine Repairs of the house Repayment of loan Loan of consumption Other purpose [specify]		
7.2 Expenses on religious and Cultural activities Ceremonies Marriage and social functions Festivals Others [specify]		
7.3 Personal expenses [Specify]		

D-daily

M-monthly

Y-yearly

8. EMPLOYMENT

- 8.1 How many days you are being employed as hired labor in a week?
- 8.2 How many male members of your family go away for work in other villages?
- 8.3 What are the avenues of employment other than agriculture in your village?
- 8.4 In which of the following type of employment are you engaged?

[a] Wage labor	seasonal	perennial
[b] Foraging	seasonal	perennial
[c] Agriculture	seasonal	perennial
[d] Animal husbandry	seasonal	perennial
[e] Any other [specify]	seasonal	perennial

8.4.1 For Wage labourers

- [a] How many days in a month do you get work?
- [b] What is the wages/day?
- [c] What are the problems encountered?

8.4.2 For Forages

- [a] what are the goods foraged?
- [b] Number of family members going for foraging?
- [c] What are the problems encountered?

8.4.3 For Agriculturists

- [a] How many cents of land is available for agriculture?
- [b] What are the crops cultivated?
- [c] What is the income obtained from the crop cultivated?
- [d] What are the problems encountered?

8.4.4 For Animal Husbandry

- [a] What are the types of cattle reared?
- [b] What is the income obtained from cattle rearing?
- [c] What are the problems encountered?

8.5 Animal Husbandry

Sl no	Type of animal reared	No.	Quality		
			Good	Average	Poor
a	Cow				
b	Buffalo				
c	Ox				
d	Goats				
e	Hens				
f	Others[specify]				

8.6 Are you a member of any tribal organization? yes/no

8.7 Is there any unemployment in your village? yes/no

8.8 If yes, can you give approximate estimate of unemployment in your village?

8.9 Who is supporting you during the period of unemployment?

[a] Parents [b] guardians [c] property income [d] others (specify)

8.10 Which is the most important source of household income?

8.11 Give an account of other aspects of labor utilization

[1] How many adult women are in labor force in your household? :

[2] How many adult men are in labor force?

[3] How many dependents are in your household?

0-4 years

5-10 years

Old age

8.12 If you get fertile land can you cultivate it? yes/no

8.13 If no, why?

[a] Employer will not permit [b] fear of loosing

[c] lack of proper water facilities [d] Marketing problem

8.14 What is the average daily wage paid for different occupation?

Occupations	Wages in peak season		Wages in slack season	
	Male	female	Male	female

8.15 Do you have knowledge of cultivating different types of agricultural crop in your land? yes/no

8.16 Were your family ever been an owner of land yes/no

8.17 if yes please give the following details

[a] Year

[b] Area

8.18 How was your land lost?

[a] Bonded ness

[b] non-repayment of loan

[c] poverty/family disputes

[d] acquired for forest project

[e] any other [specify]

8.19 To whom was it lost?

[a] Money lender

[b] master

[c] relatives

[d] Government

PART-II
ENVIRONMENT AND THE TRIBAL LIFE

- 2.1 Are you the original inhabitants of the area? : Yes/no
- 2.2 If no, from where you are migrated?
- 2.3 Do you think that the life of the people in this community is better or worse than it was in the past?
[a] Better [b] Worse [c] No change
- 2.4 if, for any reason, why? [Allow three answers; Rank the following according to your choice]
- [a] Changes in agricultural practices [b] Changes in weather conditions
[c] Natural disaster [d] Denial of their traditional life pattern
[e] Crop diseases [f] Intervention of non-tribal community
[g] Changes in the social and cultural practices [h] Others [specify]
- 2.5 can you think that what may be the main reason for your present condition? [Allow three answers; Rank the following according to your choice]
- [a] Lack of employment opportunities
[b] Denial of their access to forest
[c] Poor health and the related diseases
[d] Poor land productivity
[e] No way to borrow money
[f] Exploitation from the powerful sections of the society
[g] Low level of education and the skills
[h] Others [specify]
- 2.6 To what extent your life strategy is related to the environment?
- 2.7 What are the sources of water [Tick appropriate responses]

Source

For drinking

[a] Own well

[b] Neighbors well

[c] Pond

[d] Public tap

Distances

near/far/convenient

near/far/convenient

near/far/convenient

near/far/convenient

2.7.1 For washing/bathing etc

[a] Own well near/far/convenient

[b] Neighbors well near/far/convenient

[c] Pond near/far/convenient

[d] Public tap near/far/convenient

2.9.1 What are your water treatment

[a] Boiled [b] add medicinal herbs [c] untreated

2.10 Source of your lighting

[a] Kerosene [b] electricity [c] candles [d] oil [e] nil

2.11 Source of fuel

2.12 Can you indicate the degree of your dependence on forest?

Dependence on forest		Quantity used/daily basis(bundle/kg)	location
a	Timber		
b	Forest goods [a] Honey [b] Inja [c] Soap nut [d] Wax [e] Minor forest produce [f] Medicinal plants [g] Others [specify]		
c	Fodder		
d	Green manure		
e	Hunting		
f	Any other [specify]		

2.12 How many members of your family pass to collect Non-Timber Forest Produce [NTFP]

2.14 Details of NTFP collection

2.15 Do you face the scarcity of water in your area? yes/no

1.16 From where you have collect fuel?

- [a] Nearest place
- [b] Interior forest
- [c] Other village
- [d] Others [specify]

2.17 Toilet Facility

- [a] pit
- [b] open air
- [c] own toilet

2.18 waste disposals

- [a] Heap outside home [left to decay]
- [b] Heap in a common pit [decay]
- [c] Burn
- [d] Bury

2.19 Wash [bathing]

- [a] Once a day
- [b] Twice a day
- [c] nil

2.20 Facilities available in the area:[Tick those available]

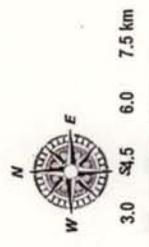
- [a] Hospitals
- [b] Primary health center
- [c] Schools
- [d] Banks
- [e] Post office
- [f] Co-operative societies
- [g] Cinema theater
- [h] Shops
- [i] Bus roots
- [j] Telephone
- [k] T.V
- [l] Radio
- [m] Roads [mettaled/tarred]
- [n] Clubs
- [o] Library
- [p] Solar light
- [q] Buses
- [r] Ponds/well/tap

2.21 How much time you have spent for collecting fuel wood?

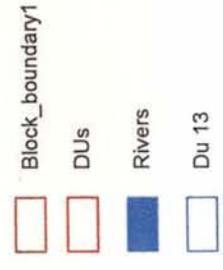
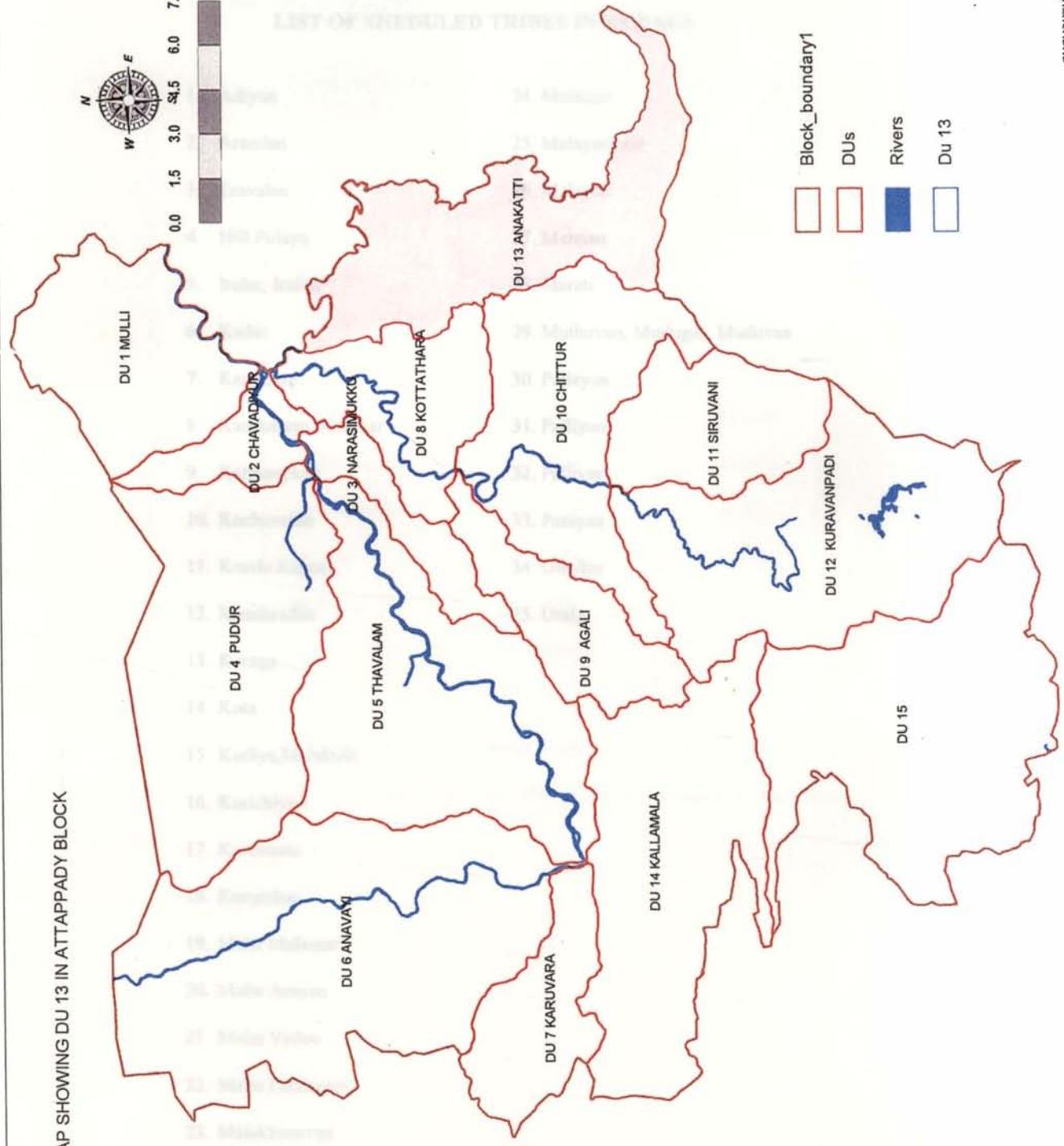
Place	Distance	Km

- 2.22 Who has done other household jobs?
- [a] Children
 - [b] They themselves
 - [c] Mother
 - [d] Others [specify]
- 2.23 How many people migrated to other places?
- 2.24 What is the reason for migration?
- [a] Lack of employment
 - [b] Denial of access to the forest
 - [c] Exploitation from the settlers
 - [d] Others [specify]
- 2.25 What are the general problems faced [rank the following according to your choice?]
- [a] Lack of food, clothing/housing
 - [b] Lack of educational facilities
 - [c] Lack of medical facilities
 - [d] Unemployment/underemployment
 - [e] Lack of road/transport facilities
 - [f] Lack of marketing facilities
 - [g] Lack of women empowerment programme
 - [g] Any other [specify]
- 2.26 What are the extension activities you need in your area? [Rank with your order of preference]
- [a] Education facilities
 - [b] Health care facilities
 - [c] Drinking water facilities
 - [d] Sewage disposal facilities
 - [e] Housing facilities
 - [f] Facilities for marketing of produce
 - [g] Provision of solar energy/smokeless chulhas/ gobar gas
 - [h] Upgrading breed of cattle
 - [i] Poultry farming
 - [j] Improved variety of seeds, fertilizer and economic assistance for agricultural activities
 - [k] Income generation programmes especially intended for the women
 - [l] Afforestation programmes
 - [m] Awareness generation programmes on production and conservation of forest /forest products
 - [n] Restoration of the right to collection of non-timber forest produces [NTFP]

MAP SHOWING DU 13 IN ATTAPPADY BLOCK



LIST OF SCHEDULED TRIBES IN...



APPENDIX-II

LIST OF SHEDULED TRIBES IN KERALA

- | | |
|------------------------|--------------------------------|
| 1. Adiyar | 24. Malassar |
| 2. Arandan | 25. Malayanayar |
| 3. Eravalan | 26. Malayan |
| 4. Hill Pulaya | 27. Mannan |
| 5. Irular, Irulan | 28. Marati |
| 6. Kadar | 29. Muthuvan, Mudugar, Muduvan |
| 7. Kammara | 30. Palleyan |
| 8. Kanikaraan, Kanikar | 31. Palliyar |
| 9. Kattunaykan | 32. Palliyar |
| 10. Kochuvelan | 33. Paniyan |
| 11. Konda Kapus | 34. Ulladan |
| 12. Kondaradiis | 35. Uraly |
| 13. Koraga | |
| 14. Kota | |
| 15. Kudiya, Melakudi | |
| 16. Kurichiyar | |
| 17. Kurumans | |
| 18. Kurumbas | |
| 19. Maha Malassar | |
| 20. Malai Arayan | |
| 21. Malai Vedan | |
| 22. Malai Pandaram | |
| 23. Malakkuruvan | |

UNRECOGNIZED TRIBAL COMMUNITIES IN KERALA

Sl.No	Tribal Community	Number of Tribals	percentage
1	Allav	332	(1.95)
2	Cholanaikan	256	(1.50)
3	Kopplan	58	(0.34)
4	Vettakurumban	226	(1.32)
5	Tenkuruman	1829	(10.73)
6	Mullukurumban	9721	(57.00)
7	Uralkurumban	2411	(14.14)
8	Malavettuvan	73	(0.43)
9	Naickan	1910	(11.20)
10	Vishavan	237	(1.39)
	Total	17053	(100.00)

Source: Government of Kerala, Bureau of Economics and Statistics, Reports of Socio-Economic Survey of Tribals in Kerala 1976-78, Thiruvananthapuram, September 1979