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Tribal Sub Plan on the Human Capability formation of the Tribal Community in Kerala

Thesis Submitted to
Cochin University of Science and Technology
for the Award of the Degree of
Doctor of Philosophy
under the Faculty of Social Sciences

by

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Under the Supervision of
Prof. (Dr.) D. Rajasenan



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September 2020

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Certificate

This is to certify that the Ph.D. thesis entitled “**Tribal Sub Plan on the Human Capability formation of the Tribal Community in Kerala**” is a bonafide record of the research done by **Ms. Nishamol. M (Reg. No. 4573)** in partial fulfillment for the degree of **Doctor of Philosophy**, under my supervision and guidance in the Department of Applied Economics, Cochin University of Science and Technology.

The thesis is an original piece of research and has not formed the basis for award of any degree, diploma, associate ship, fellowship, or other similar title of any other University or Board and is worth submitting for the award of Doctor of Philosophy under the Faculty of Social Sciences of Cochin University of Science and Technology. All the relevant corrections and modifications suggested by the audience during the pre-synopsis seminar and those recommended by the Doctoral committee have been incorporated in the thesis.

Place: Kochi-22
Date: 25/09/2020

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Declaration

I hereby declare that the thesis entitled “**Tribal Sub Plan on the Human Capability formation of the Tribal Community in Kerala**” submitted to Cochin University of Science and Technology in partial fulfilment of the award of the degree of **Doctor of Philosophy**, is a bonafide record of research work done by me under the guidance of **Prof. (Dr.) D. Rajasenan, Department of Applied Economics, CUSAT.**

This thesis has not been previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other title of recognition.

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Acknowledgement

At last, after a long journey with many unforgettable experiences in my life, I reached the crucial stage of the completion of my PhD work. In this ride, I saw the real lives of sufferers as well as strugglers and heard the words of uncertainties. I saw the face of hungry babies and their helplessness. I listened to the painful voice of mothers and their struggles. I witnessed the richness of the mystical world. Other than academic motives, this PhD period has also given another opportunity for me to do an internal search and realise the ups and downs of life cycles. In this stage, I remember many known and unknown people who directly or indirectly are supporting, mentoring, and motivating me a lot. When I became exhausted, they inspired me through motivational words; when I moved to uncertainties, they held my hand. I have no words to express my feelings. But I know I am so lucky to have received the official, academic and mental support and care of many people for doing this work seamlessly. At this time, a lot of faces are coming in my mind, and I am also indebted to each one for the completion of this work.

I express my sincere gratitude to my supervising guide Dr. D. Rajasenan, Retd. Professor, Department of Applied Economics, Cochin University of Science and Technology (CUSAT), for the successful completion of this work. He supported me a lot as an academician and also as a mentor. As a researcher, I am fortunate to have a supervising guide like Prof. Rajasenan. He has given a lot of freedom to me for doing the thesis work. It enhanced me to make discussions with many experts in this field. Moreover, it encouraged me to procure more awareness about my research area and clear out my doubts. My heartfelt thanks to you sir.

I would like to express my grateful thanks to Doctoral Committee Member, Prof. S. Harikumar, Dean, Faculty of Social Sciences, CUSAT and Prof. P. Arunachalam, Head of the Department, Dept. of Applied Economics, CUSAT, for their timely support and cooperation at the various stages of the study.

I am profoundly obliged to Dr Rajesh. K, Head of Social Science Division, Integrated Rural Technology Centre (IRTC), Palakkad, for the intensive discussions, immense support and motivation in the various stages of this study.

I am also indebted to Prof. N. Vijaya Mohanan Pillai, Centre for Development Studies (CDS), Thiruvananthapuram; Mr Prasanth P. Daniel, Retd. Chief of Plan Co-ordination Division, State Planning Board, Thiruvananthapuram; and Mr. V.K Mohan Kumar, Retd. Asst. Director, Kerala Institute for Research Training and Development Studies of Scheduled Caste and Scheduled Tribes (KIRTADS), for spending their precious time with me for extensive discussions and providing reference materials. The discussions at various stages have inspired me a lot of confidence to complete this work very effectively.

I am thankful to Dr. M. Suresh Kumar, former Asst. Director, Directorate of Scheduled Tribes Development Department, Thiruvananthapuram (now, Chief of Plan Co-ordination Division, State Planning Board, Thiruvananthapuram); Mr. Premanandhan, Retd. Deputy Director of Education and Mrs. Josephine, Asst. Director, Directorate of Scheduled Tribes Development Department, Thiruvananthapuram; Mr. Kunjikirishnan, Research Assistant; Librarians, and other anonymous officers in the State Planning Board, Thiruvananthapuram, for providing me technical support and various documents related to my study.

I would like to express my sincere gratitude to Mr Herald John, APO, ITDP Attappady and Mr. Jayan, TEO, Puthur, Attappady; Mr. Suresh Kumar, Former TDO, Palakkad and Mr Nisar, TEO, Muthalamada; Mr Sudheer, former Project Officer, ITDP, Thodupuzha and Mr. Anoop, former TEO, Poomala, Idukki; Mr. Santhosh Kumar, TDO, Mananthavadi, Wayanad; Mr Ganesh, TEO, Thalappuzha, Mr. Biju, former TEO, Panamaram and Mr Adarsh, DFO, Head Quarters of Kerala Forest and Wild Life Department, Thiruvananthapuram for providing me immense support at the time of fieldwork.

I extended my sincere gratitude to Dr. S. Sreekumar, Director, IRIC; Mr K.K. Janardhanan, Registrar and other staff who supported me for the successful completion of this work. In this occasion, I am extremely grateful to the members of Kerala Sasthra Sahithya Parishath, especially, Dr M.P. Parameswaran, Dr. N.K Sasidharan Pillai, P.K Narayanan, Mrs. Meera Bai, Prof. P.K Raveendran, Mr. A. P. Murali, Dr. T.K Anandhi, Mr. Gopan, Mr Lalithan and Mr. K.V Shaji for their interest, enquiries and mental support for the completion of

my research. I would like to express my sincere gratitude to the team members of Gaveshakakkootam who showed me the alternative pathways of the world of research.

I would like to express my heartfelt thanks to the Librarians in the Department of Applied Economics and Central Libraries in CUSAT, especially Mr Balachandran and Mr. Anoop Varmma, former Librarians in Applied Economics, for their technical and mental supports for completing this work. I never forget the consideration and mental support of the office staffs, Mr Harilal, Mr. Anil Kumar, Mr. Sibi, Mrs. Sheeja, Mrs. Selvi and other contract staffs in the Department of Applied Economics.

I am thankful to Dr. Meera Velayudhan, Dr. Jose Chathukulam, Dr. Shyjen Davis, Dr. Suchithran, Mr. Rajendraprasad, Mr. Simon Peter, Mr. Janardhanan, Mr. Geethanathan, Dr. Prabhudas, Mr. Radhakrishnan, Mr. Rushikeshan Nair, and Mr Joseph who have spent their precious time with me sharing their experiences related to my topics. I would like to utilize this opportunity to express my sincere thanks to my friends, juniors and colleagues in CUSAT. I will never forget the support of my friends and the moments with them. Thank you so much to Sony Thilakan, Nijesh, Aravind A., Dr. Rajeev.B, Dr. Aparna. P, Rakhi, Dr. Aparna Siva, Dr. Haseena C.A, Susan Sukanya, Dr Suresh P.R, Prem Kumar, Ranjith, Dr Paulami Aachi Mukherji, Dr. Reshmi, Mercy and Deependra.

I am deeply indebted to my mother, sister, niece Ammu and relatives for their prayers, support, tolerance and motivation for the successful completion of this work. My mother and sister suffered frequently and were standing with me during the thesis drafting.

Above all these, I extend my sincere thanks and praise to the Almighty for allowing me to complete the PhD work and instilling me with the strength, and power to overcome the difficulties.

I dedicate this PhD thesis to my dear father the Late. Mr. Maniyankutty and my beloved mentor, Late. Prof. W. H. Maccadan, Faculty Member in the Indian Institute of Management, Kozhikode.

Nishamol M.

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List of Abbreviation

ADR	- Aged Dependency Ratio
AHADS	- Attappadi Hills Area Development Society
ASHA	- Accredited Social Health Activist
AW	- ASHA Worker
BHK	- Bedroom, Hall, Kitchen
CD	- Community Development
CDR	- Child Dependency Ratio
CHC	- Community Health Centre
CHIS	- Comprehensive Health Insurance Scheme
CV	- Coefficient of Variation
DH	- District Hospital
ESAF	- Evangelical Social Action Forum
FRA	- Forest Right Act
GoI	- Government of India
GoK	- Government of Kerala
HW	- Health Worker
IAY	- Indira Awas Yojana
ICDS	- Integrated Child Development Scheme
ISS	- Institute of Social Sciences
ITDP	- Integrated Tribal Development Programme
KARB	- Kerala Agrarian Relation Bill
KDR	- Kerala Development Report
MADA	- Modified Area Development Approach
MGNREGA	- Mahatma Gandhi National Rural Employment Guarantee Act
MoTA	- Ministry of Tribal Affairs
MRS	- Model Residential School
NCST	- National Commission for Scheduled Tribes
NRHM	- National Rural Health Mission
NRLM	- National Rural Livelihood Mission

NSFDC	- National Scheduled Caste and Scheduled Tribes Finance and Development Corporation
OK	- Oorukoottam
PCI	- Per Capita Income
PDS	- Public Distribution System
PHC	- Primary Health Centre
PVTG	- Primitive Vulnerable Tribal Group
RGVY	- Rajiv Gandhi Grameen Vidyutikaran Yojana
SCA	- Special Central Assistance
SMTDP	- Special Multi-Purpose Tribal Development Project
SSA	- Sarwa Shiksha Abhiyan
SSLC	- Secondary School Leaving Certificate
STDD	- Scheduled Tribe Development Department
TDO	- Tribal Development Office
TDP	- Tribal Development Programme
TDR	- Total Dependency Ratio
TEO	- Tribal Extension Officer
TH	- Taluk Hospital
TRDM	- Tribal Resettlement and Development Mission
TRIFED	- Tribal Co-operative Marketing Development Federation
TSP	- Tribal Sub Plan
UNDP	- United Nation's Development Programme
WCP	- Women Component Plan

.....❧.....

INTRODUCTION

- 1.1 Introduction*
- 1.2 Statement of the Problem and Research Questions*
- 1.3 Objectives of the Study*
- 1.4 Methodology*
- 1.5 Limitations of the Study*
- 1.6 Chapter Scheme of the Study*

1.1 Introduction

Scheduled Tribes, an isolated community, settled in inaccessible pockets and mostly in the dense forests acclimatised with the hoarse climatic conditions and encountering with horrors of the animal kingdom for their livelihoods. Though the situation is troublesome, they are happy in their milieu, producing the basic sustenance of life through rudimentary agrarian set up. But the situation becomes bleak with the intrusion of the powerful groups to juggle, with the fortunes of the forest exploiting the socially excluded and marginalised community into untold miseries. Hence, these disadvantaged groups have been struggling with the issues of poverty, malnutrition, poor health, and educational attainments, etc. Clause (25) of Article 366 of the Constitution of India defines “Scheduled Tribes means such tribes or tribal communities or parts of or groups

within such tribes or tribal communities as are deemed under article 342 to be Scheduled Tribes for the purpose of this Constitution” (MoTA, 2011). The term ‘Scheduled Tribes’ is an administrative and political concept in India, used for the purpose of ‘administering’ historically disadvantaged and socially backward groups who are getting certain constitutional privileges (Therakam, 2010).

In 1965, by the recommendations of the Lokur Committee, the Government of India suggested certain criteria for recognizing a community as a Scheduled Tribe. The specifications are (i) indications of primitive traits, (ii) distinctive culture, (iii) geographical isolation, (iv) shyness of contact with the community at large, and (v) backwardness (Lokur Committee Report, 1965). In 1878, the Indian Forest Act of 1865 was strengthened by the British rulers through registering under Reserved and other categories for claiming a legal right of the state governments on forest land. It was adversely affected tribal rights on forest lands due to immobilizing livelihood options, restricting the accessibility of forest resources, and displacing from homelands. Consequently, tribes became more deprived, isolated from the public, faced food insecurity, children suffered malnutrition, etc. Later, in Post-independent India, tribal lives turned into material and cultural impoverishment, repression, seduction, and political marginalization, even though the government designed special policies and programmes for their welfare and socio-economic upliftment (Therakam, 2010; Sethi 2014).

In Kerala, the incursion of non-tribes to tribal regions has adversely affected the lives of aboriginals in the state, especially during the period

1930-1960, massive quantities of tribal lands lost. Due to overwhelming land alienation, tribal farmers became agricultural wage labours of migrants and emerged new patterns of cultivation in tribal regions. Consequently, the nature of the local market changed from a tribal economy (followed the Barter system) to a cash economy (KFRI, 1991; Therakam, 2010). Moreover, their traditional consumption patterns changed in favour of the cash economy, like the consumption pattern of settlers. Hence, the need for money increased for purchasing consumables from the cash economy, and subsequently, tribes became more deprived and financially unsecured. In short, uncontrollable land alienation, changes in the cultivation patterns, lack of employment opportunities, absence of permanent livelihood assistance, low wage rate, and the fluctuations in the peripheral economy in the tribal regions created barriers to the socio-economic development of tribes in the state. These led tribal communities to a higher rate of poverty and vulnerabilities (Mathur, 1977).

In Post-Independence India, from the 1st Five Year Plan onwards, the Union and State ministries have been taking initiatives for the formation of policies and programmes for the welfare and socio-economic advancement of the oppressed communities, based on different approaches like *assimilation and integration*. In 1974, the Government of India introduced the Tribal Sub Plan (TSP) to tribal development programmes, based on the integrationist approach. It is a multi-pronged strategy for supporting health, education, sanitation, livelihood, water supply etc. of tribal communities in the country (MoTA, 2016). The basic concepts of the policy framework of the Tribal Sub Plan are promotion

and protection. Since 1974, the Union and State Ministries have been allocating budget provisions under the TSP in every year, according to the population proportion of tribes in the country as well as states. In Kerala, both governments have spent nearly 10000 crore rupees among tribal communities through different schemes under the TSP. Initially, the policymakers focused on schemes for expansion of household and hamlet wise infrastructure facilities. Then, the government formulated schemes for the advancement of tribal health and education to overcome their socio-economic backwardness. Thus, they started Model Residential Schools and Anganawadies, constructed hostels for tribal boys and girls, started mid-day meal system, pre-primary and single-teacher schools etc. for strengthening and ensuring high-quality education to tribal students. At the same time, the Tribal Development Department and Health department work together for reinforcing the health status of tribal population in the state, by the ways of conducting free medical check-ups in government hospitals, starting health centres, providing financial assistance for critical illness, conducting health awareness programmes and medical camps for controlling the poverty induced and life-style diseases.

However, several studies and government reports revealed a significant gap in the human development indices between the Scheduled Tribes and other social categories in the state (KHDR, 2005). Also, the Human Development Report 2008 stated the incidence of deprivation of the Scheduled Tribes was very high (57.9 per cent) when compared to the deprivation rate of the general population (29.5 per cent) in Kerala. Moreover, the educational statistics of the Scheduled Tribes in Kerala revealed the proportion of tribal students in higher education courses was

low when compared to pass percentage of tribal students in the S.S.L.C. and Higher Secondary School examinations (Economic Review 2018). The health statistics also uncovered the poor health status of the tribal population in the state according to the data of sickle cell anaemia, malnourishment of children, higher maternal mortality rate and underweight of tribal children, etc. Predominantly, the poor educational qualifications and low health status are the consequences of extreme poverty and vulnerabilities in a society (KHDR, 2005). It reveals that although the Union and State Ministries have given priority to the implementation of several schemes to enhance the tribal education and health sectors, the outcomes have been meagre. Thus, the lacunae in the education and health sectors of the Scheduled Tribes points out the interventions of the governments in tribal regions need to be progressively improved and carefully revised.

The uniqueness of each tribal community in Kerala and their distinctiveness have well-explained in various literature based on their traits, ethos, culture, socio-economic status, etc. (Kunhaman, 1989; Mathur, 1977; STDD, 2013). But the uniqueness of each tribal community has not been considered by the policymakers in the formulation of tribal development programmes. Moreover, they predominantly focused on the mainstream development perspective rather than the tribal perspective. Also, we observed there were strong socio-economic and cultural disparities between indigenous communities in Kerala, especially between the advanced and deprived groups. It reveals the government interventions have not been successfully reached out among the members in the deprived or moderate tribal groups. Hence, it

is pertinent to enquire how far the tribal development programmes can properly address the specific needs of each tribal community in the state.

In short, compared to the other Indian States, Kerala's human development index value was close to some developed countries, and the state demonstrated notable progress in literacy, education and health (Human Development Report, 2008). However, the official statistics on basic infrastructure facilities, demography and multi-dimensional deprivation status of tribal communities in Kerala indicates they remained poor and set aside from the development scenario of the mainstream societies. In this context, we try to make a study about tribal development programmes of the state by linking with the theoretical framework of developmental discourses such as the *Basic Needs Approach*, the *Capability Approach* and the *Deprivation*. It attempts to highlight some questions regarding the effectiveness of tribal development programmes on the human capability formation of deprived sections of the society based on their current educational, health and employment status, such as how far the Tribal Sub Plan has been able to produce differential outcomes on selected tribal communities according to their level of deprivation; to what extent formation of the TSP was participatory by acknowledging the citizenship rights of tribes; whether there has been a strong monitoring and evaluation mechanism for the formation and implementation of schemes under the TSP in the state; to what extent development programmes under the TSP solve the capability issue among the tribal population.

Basic Needs Approach: The Basic Needs Approach to development is to provide opportunities for the full physical, mental and social development

of the individual. It focuses on mobilizing particular resources for particular groups identified as deficient in these resources and concentrates on the nature of what is provided rather than on income. It considers poverty as the ‘deprivation of consumption’. It is influenced by the time, places, customs and institutions of the localities. This approach also encompasses the material and non-material needs of individuals. Food, clothing, shelter, drinking water, sanitation, and essential services are the material needs, and non-material needs consist of employment, participation and political liberty, social security, education and health.

Capability Approach: Capabilities are the *real freedoms* that people have to achieve their potential doings and beings. This approach mainly focuses on the empowerment of people. It makes two fundamental normative assertions. First, the human being and his or her quality of life and this ought to be at the centre of any assessment of society or social life. A second assertion is that people’s quality of life is better appraised by focusing on their capabilities, and not on the incomes or resources they possess. Further, it consists of three groups of conversion factors, such as a. personal conversion factors (e.g., metabolism, physical condition, sex, reading skills, and intelligence) b. social conversion factors (e.g., public policies, social norms, discriminating practises, gender roles, societal hierarchies, and power relations) and c. environmental conversion factors (e.g., climate, geographical location etc.).

Deprivation: Deprivation refers to the lack or absence of a resource or opportunity and these are regarded as necessary for a basic standard of living. The concept is wider than poverty. It can be divided into two i.e., Absolute Deprivation and Relative Deprivation. Absolute deprivation

refers to the loss or absence of the means to satisfy the basic survival needs—food, clothing, and shelter. The term relative deprivation refers to deprivations experienced when individuals compare themselves with others. The domains of deprivation are income, employment, education, health, crime, barriers to housing and services, and living environment.

The present work ‘Tribal Sub Plan on the Human Capability formation of Tribal Community in Kerala’ is an attempt to identify the effectiveness of tribal development programmes in the formation of the capabilities of tribal communities in various socio-economic categories, based on the human development indicators such as the education, health, employment, and livelihoods.

1.2 Statement of the Problem and Research Questions

The concepts of development have been changing over time when ideological updating occurs all over the world. It has converted from conventional to micro-level approaches to find out solutions to individual poverty and deprivation (Alder, 2016). In 1990, the UNDP introduced the concept of the Human Development Index in its first Human Development Report. They believed human welfare is the end of the development of a society. Moreover, Human Development is a process of enlarging the choices of an individual, which are infinite and can change over a period. It is mainly related to the concepts of productivity, equity, sustainability, and empowerment rather than the conventional development indicators like economic growth, Gross Domestic Product, and Per-Capita Income (Nayak, 2008). But in the case of Ethnic minorities, racial groups and disadvantaged in many developed and developing countries are facing higher levels of

poverty and deprivation, especially indigenous people are more deprived (World Development Report, 2000).

In India, tribal development is not a mere issue of poverty and livelihood that entwined with the vast concepts of human development and welfare of the primordial in the country. The lowest rate of the Human Development Index of the Scheduled Tribes in the country has revealed their socio-economic backwardness, despite the governments providing constitutional protection, positive discrimination, and welfare measures. According to the Human Development Report of UPND in 2019, in India, there were strong horizontal and vertical disparities between the progressive and disadvantaged groups in the rate of human development, due to the gap in the convergence of basic capabilities and divergence in enhanced capabilities. It is a fact that the aboriginals in the country have traditional capabilities for living in their own culture and tradition. But the current scenario indicates that those capabilities are not sufficient for competing with modern technology and the attainment of a better standard of living. It meant that the ratio of human development of the oppressed communities linked with the capabilities and capital formation of its members. Moreover, it observed that the policy frameworks of tribal development programmes in India mainly concentrated on the theoretical concepts of the Basic Needs Approach rather than the capability formation of tribal population. So, the schemes based on the Basic Needs Approach have been giving more priority to the establishment of the minimum requirements of tribes such as a house, drinking water facilities, sanitation, transportation facilities, etc. than the capability formation of tribal members

The capability approach of Amartya Sen is an alternate model of measuring economic growth and development of a society. It argued that individuals were the ultimate ends as well as beneficiaries of the achievements of economic growth than the tool of the production process (Sen, 1995). This theory also emphasized that external factors such as social arrangements of the society, nature of government policies, access to infrastructure facilities and public utility services, freedom to speak, involvement in social and political activities, etc. can influence the capabilities of individuals (Goodpal, 2013). The external forces may be personal, social, economic, political, and environmental factors. In the case of tribal communities in Kerala, external forces like the migration of non-tribes, land alienation, transformation of the local economy, insufficient infrastructure facilities, social disintegration, geographical isolation, etc. adversely affected the enhancement of the capabilities of tribes in the state. Moreover, it multiplied due to the intensity of deprivation and marginalisation of tribal communities in the state.

According to the Kerala Economic Review 2017, the deprivation status of rural households indicates only 30.33 per cent of the total rural households were considered as deprived while 61.68 per cent of tribal households under deprived categories. Moreover, the Human Development Index of the Scheduled Tribe was far lower than the average of mainstream communities in Kerala (Kerala Development Report 2008). It reveals the governments were not able to promote economic, social, and occupational mobility among tribes, particularly among deprived tribal communities. Put differently, the government policies and programmes could not give more priority to the capability

approach for adequately reducing poverty through the formation of socio-economic capital in the long-term purpose in a broader sense. In this specific context, we realised the importance of assessing the key factors influencing the capability formation of tribal communities based on the theoretical framework of the Capability Approach.

In short, in the context of continuing the deprivation and vulnerabilities among aboriginals, this study tries to examine the impact of the Tribal Sub Plan on the capability formation of various tribal communities in Kerala. It is a fact that poverty is a major barrier to the formation of the human capabilities of the historically marginalised and deprived societies. In other sense, it is the outcome of fewer capabilities of a vulnerable society to address their choices. Broadly, the Scheduled Tribes are historically weaker sections in the country possess limited needs and wants, and thus their choices are merely limited (Varis, 2008). Nevertheless, the issues related to the formation of the human capabilities of aboriginals require special attention to finding out solutions. There were several kinds of literature available mentioned about the micro and macro aspects of tribal developments. However, the comparative studies about the effectiveness of the TSP on human capability formation of the Scheduled Tribes in the country were largely missing. Hence, it is more relevant to understand the impact of tribal developmental programmes on the capability formation of indigenous communities based on their deprivation rate and socio-economic status. The study followed different frameworks of development, such as the Basic Needs Approach, Capability Approach, and Deprivation analysis. The components focused in the study are; contents of policies and

experiences of TSP implementation; how structural issues restricting the capability formation of tribal communities; and functions of tribal institutions, and democratic participation.

The research questions attempted to answer through the study are,

- How far the tribal policies and programmes under the Tribal Sub Plan have been successful in building the capabilities of the tribal population in Kerala in terms of their attainments in basic infrastructure, education, health, and livelihoods?
- What are the contributions of the Tribal Sub Plan to the expansion and strengthening of social capital, traditional tribal institutions, and the negotiation potential of the tribal communities in the state?
- To what extent the tribal development programmes could improve the institutional service facilities and access to the service delivery mechanisms available to different tribal groups?
- How far the TSP could exhibit dynamism for innovating the policies and programmes according to the updating in the frameworks of development?

1.3 Objectives of the Study

The objectives of the study are;

- 1) To understand the effects of the Tribal Sub Plan (TSP) in the human capability formation of six tribal communities in three districts in a comparative perspective.

- a) To evaluate the effects of initiatives under the TSP in provisioning the basic human needs of tribal population in the aspect of domicile land, housing, drinking water facilities, availability of electricity, and access to PDS.
 - b) To make an inter-community comparison of availability of the infrastructure facilities in the surveyed tribal areas in terms of road and institutional service facilities.
 - c) To assess the role of the TSP and other public investments in the social empowerment of tribal communities in terms of the education, health, employment and livelihood opportunities, and the services getting from the government, which are enhancing the human capabilities of selected tribal population.
- 2) To know about the flow of annual budget outlay and expenditure pattern of the TSP in the selected sectors of tribal developments in Kerala.
 - 3) To identify the challenges and issues which generating hurdles in the execution of TSP programmes, especially in the policy formulation and governing process of tribal development in the state.

1.4 Methodology

This section deals with various research approaches and techniques used for addressing the key objectives of the study. The study predominantly focused on the individual, household, community, and hamlet wise database of six tribal communities in the three tribal

concentrated districts. It categorised into the selection of the study area, sources of data, population and sample size, methods of data collection, and analysis of data.

1.4.1 Selection of the study area

We selected the foremost tribal populated districts in Kerala, i.e., Wayanad, Idukki, and Palakkad, for the present study based on Census 2011, to understand the dynamics of the Tribal Sub Plan and its role on the capability formation of tribal communities living under various socio-economic backgrounds in Kerala. Moreover, the hamlets were chosen for the field survey based on the population proportion of selected tribal communities at each CD Block and Grama Panchayath in three districts in according to the Report on the Socio-Economic status of Scheduled Tribes in Kerala, 2013. Moreover, we selected the tribal hamlets based on certain criteria such as the number of tribal households, accessibility of roads, availability of infrastructure facilities, the geographical location of hamlets, and accessibility of government institutions.

The tribal communities such as Kurichyar and Paniyar from Wayanad, Malayarayar and Urali from Idukki, and Eravaller and Irular from Palakkad districts were selected for field survey. Except for Malayarayar and Urali communities, other tribal communities were lived in the community-lands and lead collective life. In Wayanad, the highest concentration of Paniyar and Kurichyar families lived in Mananthavadi Block, especially in Panamaram and Thavinjal Grama Panchayaths. The hamlets of the Paniyar community were located in the border of forest areas, and the nearest places of Panamaram town. Likewise, the

Kurichyar families settled in the border of forest areas, the slope of the hills, and nearer to Valad and Venmony township. In Palakkad, tribal communities were selected from the upper-part (Irular from Attappady Block) and the lower-part (Eravallar from Kollangode Block) of the district, for understanding the disparities between the effectiveness of tribal development programmes of two regions in the same district. The Irular hamlets were placed at the nearest locations of the Thavalom township, geographically isolated areas, and the slope of the hills at Puthur Grama Panchayath. Similarly, the Eravaller hamlets located nearly 5 - 10 kilometres far from Chulliarmedu and Kambrichella townships at Muthalamada Grama Panchayath, in the borderland of Kerala and Tamil Nadu. They were deprived, segregated, and experiencing a severer level of cast discrimination. The other two communities, like Malayarayar and Urali communities, lived at Velliamattom Grama Panchayath in Idukki District. The Malayarayar families resided in the isolated plain lands. However, there were road accessibilities and transportation facilities. But, the majority of the Urali households lived in geographically isolated areas and the slope of steep hills with poor infrastructure facilities.

The Multi-Stage Proportionate Stratified Random Sampling method was used for the selection of hamlets of each community in a district. The survey was conducted in 25 tribal hamlets of 25 Wards of 5 Grama Panchayaths of 4 CD Blocks in 3 Districts in Kerala. The data were collected from August 2016 to April 2017. The details of the surveyed areas are given in Table 1.1.

Table 1.1: Details about the surveyed areas and the tribal communities

Sl. No	Communities	Districts	CD Blocks	Grama Panchayath	Ward No.	Hamlets
1	Kurichyar (P [*])	Wayanad	Manathavadi	Thavinjal	17, 18, 16, 6, 8	Edathana, Kavilppadam, Thalappuzha (Mele Thalappuzha & Thazhe Thalappuzha) & Godavari (Kottakkunnu & Godavari)
2	Paniyar (D [*])	Wayanad	Manathavadi	Panamaram	20, 9, 7, 15, 19, 22, 1	Mathothpoyil, Parakkunipoyil (Parakkuni, Manjeri Parakkuni, Ayinoor Parakkuni & Kaithakkal Parakkuni), Pathiriyambam (Thazhe Pathiriyambam, Mele Pathiriyambam & Chekkitta Pathiriyambam), Naduvil veedu, Puthoorkunnu, Melekappukunnu, & Nedumbalakkunnu
3.	Eravaller (D)	Palakkad	Kollengod	Muthalamada	8, 10, 16, 12	Ambedkar colony, Mamarath, Vellaram Kadav, Naripparachella, & Chappakkad
4	Irular (M [*])	Palakkad	Attappady	Puthur	2, 3, 1, 4	Paloor, Bommiyampadi, Kolappadika, Padavayal & Cheerakkadav
5	Urali (M)	Idukki	Ilamdesham	Velliamattom	9, 6, 8	Thadiyanal & Methotti
6	Malayarayar (P)	Idukki	Ilamdesham	Velliamattom	7, 9	Poomala & Naliyani

*P= Progressive, M= Moderate, D= Deprived

1.4.2 Data Sources

We used primary and secondary data sources for collecting information. The quantitative and qualitative data were collected from the primary sources like tribal households, promoters, government officials of the administration, and implementation wing of the Tribal Department and officials in the State Planning Board. We used the desk review analysis for the collection of secondary data and referred various tribal committee reports, annual reports of Central and State Ministries, various studies reports on tribal communities, Census Reports, Statistical data, journals, periodicals, magazines, working papers, e-resources, etc.

1.4.3 Population and Sample Size

According to the Census 2011, the aggregate tribal population in Kerala was 484,839, constituted 1.45 per cent to the total population in the state. As per the Report on the Socio-Economic status of Scheduled Tribes in Kerala (2013), tribal communities were categorised into three groups, such as progressive, moderate, and deprived groups, based on the criteria of the possession of sizable lands, job status, educational status, and political party affiliation of tribal families. Among them, the progressive tribal communities were Malayarayar and Kurichyar, while Paniyar and Eravaller communities considered as deprived groups. Also, the Urali and Irular communities were considered as moderate tribal groups. Moreover, according to the Census 2011, these tribal communities were constituted 40.85 per cent to the total tribal population in Kerala.

The total number of households of the selected tribal communities in the five Grama Panchayaths was 8,138. The sample size (372) of the

primary survey was decided from the representative population (1761) of the total tribal households (See Table 3.1 of Chapter 3). The Population Proportion method was used for determining the representative population of the total tribal households of the selected tribal community in a Grama Panchayath. This method was also applied for deciding the sample size of households in each tribal hamlet.

1.4.4 Methods of data collection

The study practised both primary and secondary data for analysing the role of the Tribal Sub Plan on the human capability formation of tribal communities in Kerala. It used the compilation of qualitative and quantitative tools for gathering information such as primary survey among tribal households, focus group discussion with promoters, personal interview with officials from the State Planning Board and the Tribal Development Department, and document analysis for secondary data collection.

1.4.4.1 Household survey

A structured interview schedule was used for conducting household surveys in the tribal hamlets. It included the details about the demographic statistics of tribal households, socio-economic status of families, indebtedness of tribal households, social and organisational participation of tribal members, information about the availability of infrastructure facilities at hamlet and household level, accessibility of public service utilities, awareness about the development and welfare schemes, etc. In the field survey, the we tried to include families from each zone of a hamlet, and it was nearby the road or isolated areas. It

helped to identify travelling difficulties and lack of infrastructure facilities of tribal households who settled in isolated areas of the hamlet. The pilot survey was conducted in August 2016 in Palakkad district. After that, the household survey was conducted from October 2016 to April 2017. We have spent a minimum of three hours with a family for conducting the interviews.

1.4.4.2 Focus Group Discussion and Personal Interview

The major portion of the budget provisions of the Tribal Sub Plan in the state has been handled by the Tribal Development Department and Local Self-Governing Institutions. Among them, the nature of projects and programmes indicated that the Tribal Development Department has been managing long-term schemes under the Plan and Non-Plan fund rather than the LSGIs. Hence, it was essential to conduct Personal Interviews and Focus Group Discussion with government officials and promoters, respectively, for filling gaps in the interview schedule. The personal interviews conducted with government officials in the administration and implementation wing of the Tribal Development Department and the higher-level officials in the State Planning Board, for understanding policymaking processes, issues related to funding allocation, identification of projects and schemes, hindrance of programme implementation, monitoring and evaluation process, etc.

Promoters are bottom level staffs of the implementation wing of the Tribal Development Department and act as intermediaries between various government departments and tribal families. They have many responsibilities such as identification of beneficiaries for various schemes,

conducting Oorukoottam as the representative of the Tribal Development Department, passing information from various departments to tribal hamlets, preparation of data on the current status of tribal households, etc. In Focus Groups Discussion, they shared detailed information regarding certain areas like awareness about various schemes, issues related to the selection process of beneficiaries, monitoring of tribal welfare programmes and projects, etc.

1.4.4.3 Document Analysis

In document analysis, we collected the secondary data from the annual reports of Union and State governments, survey and statistical data of various institutions, research papers from various sources, etc. In detail, the Kerala Economic Review in various years and the report on Plan Outlay and Expenditure Kerala (1951-2017) used for the collection of data about budget allocations of several sectors under the TSP. The report on the Socio-Economic survey of tribal communities in Kerala (2013), Census reports, and the databases of Tribal Extension Offices gave the information on demographic statistics, geographical locations, occupational patterns, infrastructure facilities, etc. in the surveyed tribal areas. The annual reports of the Ministry of Tribal Affairs were used for understanding the status of scheduled tribes in the country and the central schemes of the TSP. Furthermore, several government documents and kinds of literature were supported for filling gaps in the primary survey.

1.4.5 Analysis of Data

The interview schedule was mainly categorised into several segments of capability formation, such as livelihood, assets, education, health, and

government services. Also, it subdivided into several segments like the demographic profile of tribal households, infrastructure facilities in houses and hamlets, socio-economic status of the tribes, geographical locations and accessibilities of government institutions, political participation, and organisational involvement of family members, etc. Moreover, it included the details about the services getting from government institutions, involvement para-workers like promoters, ward members, etc. and the opinion of beneficiaries on the services getting from various sectors. The field inferences systematically consolidated in the Excel sheet. Finally, the Statistical models were used for data analysis and interpretations of field surveys, with the support of SPSS 25, Gretl, and Excel. The output of the analysis of data revealed that how far the variables were mutually associated or disassociated. The study used various statistical tests for data analysis.

In Objective 1.1, we used the Lorenz curve and Gini coefficient methods for identifying the inequalities between the land ownerships of various tribal communities. Also, the Chi-Square test revealed the association between the nature of houses and categories of tribal communities; family size and the number of rooms in a house; categories of communities and the availability of basic infrastructure facilities like toilet, drinking water, and electricity.

The One-Way ANOVA with Tukey Post Hoc Test has used in Objective 1.2 for finding the inter-community and intra-community disparities between the tribal households in the accessibility of public utility services in the tribal areas.

In Objective 1.3, the Total Dependency Ratio (TDR) method was applied for calculating the number of depending members in the tribal families. It is also divided into two, i.e., the Aged Dependency Ratio and Child Dependency Ratio. TDR is a measure of the number of dependents in the age group of 0-14 and over the age of 65, compared with the total population aged 15-64. The increases in the ratio of TDR reveal the financial burden or economic insecurity of tribal communities. Also, the Lorenz Curve and the Gini Coefficient were used for analysing the inequalities between the wage rates of tribal labours in different regions. The One-Way ANOVA with Tukey Post Hoc Test helped to understand the inter-community and intra-community differences in the social capabilities and socio-economic status of tribal households.

Furthermore, the data on the plan outlays and expenditures of the TSP in Kerala was used for the interpretation of Objective 2. In Object 3, the statistical and econometric analysis was used to interpret the field data. The One-Way ANOVA with Tukey Post Hoc Test was used for identifying the inter-community and intra-community disparities between the awareness about education and health schemes; availability of government services and the satisfaction level of beneficiaries on government services in various sectors. Moreover, the *Binomial Logistic Regression Analysis* was applied to identifying the factors that influenced the awareness about education and health schemes. The *Ordinal Logistic Regression Analysis* was another econometric method used for assessing the role of various factors that influenced the satisfaction level of tribal members on services getting from the government.

1.5 Limitations of the Study

Like any research work, this study has some limitations. Due to the unavailability of the district-wise secondary database on plan outlay and expenditure of the TSP, we could not make an inter-district comparison about the distribution of funds for tribal development programmes in the state. During the household survey, a few members were not able to remember the name of various departments as well as differentiate the benefits which they had already received at various periods. So, we faced some difficulties in the collection of information on the corresponding questions from the respondents. Moreover, the availability of background studies about the TSP in relation to the capabilities of aboriginal people was very limited.

1.6 Chapter Scheme of the Study

The study is designed through seven chapters. The first chapter is an introduction that dealt with a detailed introduction, statement of the problem and research questions, objectives of the study, methodology, analysis of data, and the limitations of the study. The second chapter is the review of the literature and context of the study. It included the conceptual framework and definition of Scheduled Tribes, constitutional support of tribes in post-independence India, discourses on tribal development in the Indian and Kerala context, the status of tribes in Kerala, service delivery in tribal areas, and the lacunae in between the development discourses and tribal development programmes in Kerala. The third chapter elucidates the demographic profile of the selected tribal communities, which included details about the gender composition of

family members, marital status, dependency ratio, etc. The fourth chapter envisages the implications of the TSP on infrastructure facilities and the fundamental human needs of tribal communities in Kerala. It has made detailed discussions on the family status, land ownership, the status of houses and government assistance, availability of infrastructure facilities in houses, locality of hamlets and accessibility of public service facilities, etc.

The fifth chapter describes the role of the TSP in education, health, employment, and livelihood assistance of tribal communities. It has sub-classified such as the details about the total outlay and expenditure of the TSP in Kerala from 1985-2017; a basic profile of the educational status of tribal communities, facilities available for the educational attainment of household members, the intervention of the government for the promotion of tribal; employment profile of tribal communities, work profile of tribal cultivators and labours, livelihood assistance from the government; additional income source and indebtedness of tribal households and inter-community and intra-community disparities in the social capabilities and socio-economic status of tribal groups. Chapter six deals with the governance, challenges, and issues related to the execution of the TSP programmes. It includes the sources of information on tribal development and welfare programmes, awareness about various schemes and governing bodies, inter-community and intra-community differences in the availability of government services, and the satisfaction level of tribal households. Finally, Chapter seven describes the findings, conclusion, suggestions, contribution of the researcher, and areas for future research of the study.

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REVIEW OF LITERATURE AND CONTEXT OF THE STUDY

- 2.1 *Conceptual Framework and Definition of Tribes*
- 2.2 *Constitutional Support for the Tribes in The Post-Independence India*
- 2.3 *Discourses on Tribal Development: Indian Context*
- 2.4 *Tribal Development: Kerala Context*
- 2.5 *Status of Scheduled Tribes in Kerala*
- 2.6 *Service Delivery in the Tribal Areas*
- 2.7 *The Lacunae in Between Development Discourses and the Tribal Development Programmes in Kerala*

Globally, ethnic minorities, racial groups, and disadvantaged are facing a higher level of poverty. Among these, the indigenous people are more deprived. To understand the indigenous group and their background, it needs to explore the literature in the background and context of the study to identify the problems of the tribes of Kerala and the measures taken by the policymakers to reorient the community in the development thinking, and these become the theme of Chapter 2. There is no dearth in tribal literature in India. But about the tribes and tribal development literature in a Kerala specific context is scant. The issues regarding the tribal development encompassing Tribal Sub Plan and governance and

tribal development schemes, the literature kitty remains blank. In this bleak scenario, the available literature connected to the socio-economic conditions and associated development of the tribes through the Tribal Sub Plan is envisioned to highlight the research problem and the allied theoretical framework to develop the proper objectives planned in the study.

In India, the Scheduled Castes and Scheduled Tribes are structurally deprived, due to not only the lack of economic resources but also poverty is strongly linked to social identity and is primarily determined by the caste (World Development Report, 2000). Moreover, the traditional systems in society consider them very badly and try to exclude their voice and power from social spaces. Furthermore, the marginalized communities, like Scheduled Caste, Scheduled Tribes, and Fisher Folks, live under a higher level of deprivation even though the human development index of Kerala is similar to some developed countries. Their Human Development Indicators are far lower than the average of mainstream communities in Kerala (Kerala Development Report 2008; Census 2011). It indicates the inefficiency of the governing system because of the failure of percolating the benefits of economic progress to the bottom level societies in the country. Among these three groups, the Scheduled Tribes are most vulnerable and facing severe forms of deprivation.

2.1 Conceptual Framework and Definition of Tribes

The ancient Buddhist texts indicated the people in India used the term 'tribe' as based on the concept of Jana or communities of people. In the historical and political context, according to the Roman concept,

tribes as referred to as a state of Barbarism, and it also indicates the relationship between the centre and the periphery. In the 19th Century, from an ethnographic point of view, the term tribe was described as a society that lived according to tied kinship and a stage of evolution. In India, during the colonial period, many descriptions were used for referring to the term 'tribes' in various census reports. However, the Constitution of India realised that the tribal communities needed special care, attention, and deserve special protection from the government for their overall development. For providing special care to tribal population, the Constitution of India categorised them under the title 'Scheduled Tribe', considered as a politico-administrative category. As per the report of the MoTA (2014), the Kakka Kelkar Committee, the first Commission for Backward Classes, was appointed by the President of India, under Article 340. The committee defined the tribe as " lead a separate exclusive existence and are not fully assimilated in the main body of the people. Scheduled Tribe may belong to any religion. They are listed as Scheduled Tribes, because of the kind of life led by them."

2.2 Constitutional Support for the Tribes in the Post-Independence India

During the colonial period, by the implementation of the Forest Reservation Policy in tribal lands for establishing their rights on the forest to the purpose of exporting wood as well as forest products to their homeland, the British rulers caused the lives of tribal communities more miserable. Subsequently, they expanded the plantation lands in the high-range areas, especially near tribal settlements. It adversely impacted their

lives by the way of the displacement from the traditional homelands (Bijoy, Raman, 2003). Moreover, through introducing the isolationist approach among tribal communities, the British government succeeded in alienating the tribal communities from mainstream society. Furthermore, they hesitated to provide development support to these marginalised societies. Thus, the isolationist approach and Forest Reservation Policy of the British Rulers hardly affected the socio-economic transition of the tribal population who settled in the reserved forest areas of the country (Kerala Development Report, 2008). After independence, the Constitution of India assigned more priority to the socially and economically backward societies like the Scheduled Caste and the Scheduled Tribes. They formulated the provisions of separate safeguards and appointed various tribal committees for comprehending the real lives of tribal communities and finding solutions for the crises.

2.2.1 Constitutional safeguards for Scheduled Tribes

The government in Post-Independence India has formulated various safeguards to the Scheduled Caste and Scheduled Tribes for their educational attainments and socio-economic development based on the comprehensive provisions which comprise both the developmental as well as regulatory aspects in Article 46. Article 23 and 24 are the social safeguards in the country, which prevents forced labouring and child labouring at the age below 14. These general safeguards also consider as a part of the economic safeguards of the Scheduled Tribes. Also, the special economic safeguards for Scheduled Tribes are Article 244, Article 275 (1) of the Constitution of India. The Fifth and Six Schedules contain the

provisions of the administration of Tribal Areas in general. Article 15 (4), 29 (1), and 350 A ensure the culture and educational safeguards to the tribes. It ensures distinct powers to the States for the educational advancement of the people from backward society. Moreover, it promotes education in their languages. The Article 164 (1), 330, 332, 334, 243D, 371 are assuring the political safeguards to tribal communities, which principally include the reservation of seats in the Legislative Assemblies, Loksabha, Panchayath, etc. Article 16 (4), 335 and 320 (4) provide the provisions of service safeguards to the Scheduled Tribes in the country. These ensure reservation to the Scheduled Tribes in government services for empowering the tribal society in the country (NCST, 2007).

2.2.2 Committees for Scheduled Tribes

The Government of India has appointed several committees at various periods under the chairmanship of prominent officials or experts, according to the provisions of the Constitution of India, for evaluating, reporting, and finding solutions for various issues of the Scheduled Tribes in the country. In the initial period of independence, tribes were conventionally considered under the category of 'backwards' instead of the 'Scheduled Tribes'. In 1953, the President of India approved the formation of the first commission for the Backward Classes, under the Chairmanship of Kaka Kelkar, for identifying the categories or communities of backward class people in the country. Another committee constituted under the Chairmanship of Verrier Elwin in 1959, for examining the functions and effectiveness of Special Multi-purpose Tribal Development Projects (SMTDP) in the country. The SMTDP represents

the fundamental administrative unit of tribal development activities (NCST, 2014). In 1960-61, the Dhebar Commission was appointed by the Central Ministry, under Article 339 of the Constitution of India, for identifying the current living status of the tribal population in the country. The committee studied the socio-economic status, land ownership and alienation of land, etc. of various tribal communities all over India. They prepared the recommendations of the study in the Report of the Scheduled Areas and Scheduled Tribes based on the Nehruvian Concept of tribal development (Dhebar Commission Report, 1961).

In 1965, the report of the advisory committee on the Revision of the list of Scheduled Castes and Scheduled Tribes developed by the Lokur Committee. They suggested five basic traits for differentiating tribal communities from mainstream society. According to this, they revised the existing list of Scheduled Castes and Scheduled Tribes. Moreover, they identified whether the Scheduled Tribes to relation with a particular area in the State or Union Territory (Lokur Committee, 1965). In 1966, the Shilu A.O Committee formed for evaluating the issues of tribal development and welfare activities under the Tribal Development Block (NCST, 2014). According to the Article 338 of the Constitution of India, the committee of the welfare of Scheduled Castes and Scheduled Tribes was appointed, under the chairmanship of D. Basumantarai, for investigating the effectiveness of Constitutional Safeguards for Scheduled Castes and Scheduled Tribes in 1969 (Basumatarai, 1969). The report of the Committee on forests and tribes in India prepared by B.K Roy Burman in 1982, to strengthen the tribal economy, focused on the promotion of the livelihood options of the tribal population with the support of the Forest Department.

The Bhuria Committee for the Scheduled Areas and Scheduled Tribes was formed in 2004 under Article 339 (1). It examined the constitutional provisions of the Scheduled Tribes mentioned in the 5th and 6th schedules of the constitution, and developmental strategies of various sectors under the Tribal Sub Plan (Bhuria, 2004). The study on governance and development of tribes in the Left-Wing extremist areas was conducted by the Bandhopadhyaya Committee in 2006. Moreover, a study on the inter-sectoral issues of the tribal developments, based on the standards of administration and governance in the Scheduled Areas, was conducted under the chairmanship of Dr Balachandra Mungekar in 2009. It emphasized the need to revive the institutions of self-governance, the importance of participatory approaches in programme implementations, need to promote an effective delivery mechanism, etc. (Mungekar, 2009). The Xaxa Committee report in 2014 examined the socio-economic, educational, and health status of tribal communities. The study primarily focused on the critical issues of education, health, livelihood and employment, involuntary displacement and migration, and constitutional and legal matters (Xaxa, 2014).

2.3 Discourses on Tribal Development: Indian Context

The Scheduled Tribes are one of the most vulnerable communities in the country who cannot live alone without government support due to the severity of poverty. Thus, after independence, the Constitution of India formulated various safeguards for the protection and promotion of the tribal population in the country. They implemented different kinds of developments and welfare schemes for tribal communities through

various plan and non-plan schemes under the Annual and Five-Year Plans. Thus, the various tribal development approaches and projects implemented in the tribal sectors during the Five-Year plan periods has mentioned below.

2.3.1 Approaches in Tribal Development

There have been using three approaches for the development of tribal communities in India. The history of tribal development showed the British Government followed the *Isolationist Approach*, and it widened the gap between tribes and non-tribes in the socio-economic status. They considered tribes as a separate entity and strongly believed that they should be protected from mainstream society. Moreover, they hesitated to strengthen the education and economic stability of the tribal population in India, except for some tribal regions. In the final phase of the Colonial regime, the policymakers suggested two opinions for tribal welfare and administration as '*National Park Policy and Total Assimilation*' instead of the isolationist approach. The National Park Policy promoted an isolationist approach through restricting interaction with the public in the name of protection of tribal culture and ethos. Therefore, the post-independence regime of the country negated to continue this approach because of the seclusion of tribes from the public space. But the Total Assimilation Approach promoted tribal members to interact with non-tribal societies (Sujatha, 1999). It promoted tribal members to acquire the culture and traits of mainstream societies. The tribal communities were forced by mainstream societies, to follow their modern concept and religious activities instead of the tribal norms and ethos. Gradually, it

reflected on the lives of tribal members, and consequently, they receded from traditional culture and ethos. Due to the destruction of tribal culture and ethos, the government withdrew this approach from tribal development activities. Finally, they introduced a new concept as the *Integrationist Approach* for the overall development of tribal communities in the country.

Since 1974, the Union and State Ministries have been following the integrationist approach in tribal development, which has aimed for the protection and promotion of tribal communities. Jawaharlal Nehru introduced the integrationist approach for tribal development, and it consists of two thoughts, such as the Promotion and Protection. He believed by the policy formulation, the government can protect the forests, lands, culture, and ethos of tribal communities, and by implementing welfare programmes, the authorities can promote the lives of tribes, as like as mainstream society. Moreover, based on the integrationist approach, Nehru developed Five Principles for tribal development (MoTA, 2014; KSPB, 2008).

2.3.2 Nehruvian Concepts for Tribal Development

After independence, the tribal lives changed because of Nehru gave much attention to the progressiveness, welfare, and protection of aboriginals in the country. No other Prime Minister in India has been as sympathetic to the tribal people in the country as Jawaharlal Nehru. He intensively executed various projects and schemes as part of the Annual and Five-Year Plans in the country. As a result of the modernisation and rapid industrialisation, many of the tribes were thrown from their traditional culture and ethos, and also forcefully displaced from their

homelands for opening factories. In this context, for ensuring social justice and equality to the tribal communities in modern India, he formulated the 'Five Principles for Tribal Development' in the country. These are.

- 1) People should develop along the line of their own genius and we should avoid imposing anything on them. We should try to encourage in every way their own traditional arts and culture.
- 2) Tribal rights on land and forest should be respected.
- 3) We should try to train and build up a team of their own people to do the work of administration and development. Some technical personnel from outside will no doubt, be needed, especially in the beginning. But we should avoid introducing too many outsiders into tribal territory.
- 4) We should not over administer these areas or overwhelm them with a multiplicity of schemes. We should rather work through, and not in rivalry to, their own social and cultural institutions.
- 5) We should judge results, not by statistics or the amount of money spent, but by the quality of human character that is evolved.

2.3.3 Dhebar Commission Report and Tribal Development

The Commission for Scheduled Areas and Scheduled Tribes was appointed in 1960, under the Chairmanship of U.N. Dhebar, for understanding the status of tribal population in India after 10 years,

getting independence. It covered the entire sectors related to tribal development such as the administration of Scheduled Areas, the welfare activities and effectiveness of the development schemes among the tribal communities all over the country. Based on the field analysis, he advocated a change in the existing isolationist approach implemented by the British Rulers. He recommended new suggestions based on the Nehruvian Principles of tribal development which promoted the integrationist approach. It emphasised the protection and development of the tribal population. He identified that the lives of the majority of tribal families were exploited by mainstream societies and money lenders. He realised that the problems of tribal communities could not be solved solely by land ownership. Hence, he suggested the convergence or integration of the functions of land, cattle wealth, forest, village, and cottage industries for economic mobilisation of the tribal communities.

Moreover, the commission recommended to the Forest Department to allow tribal families to utilise the forests for reducing their economic insecurities through collect and market forest products. Consequently, the tribes will also become liable to protect the forest. The Dhebar Committee strongly believed that education is an effective tool for reducing poverty and socio-economic backwardness among the tribal communities. He emphasised the need for implementing tribal friendly education to the socio-economic progress for the tribal communities. In this report, he has advocated many suggestions and policy recommendations to the government in the sector-wise (Dhebar Committee Report, 1961).

2.3.4 Five Year Plan and Tribal Development

After independence, the Government of India has been introducing a lot of developmental and welfare programmes for the tribal communities for their overall development. The major tribal development programmes in the country under the Five-Year Plans divide into three phases, and each phase includes four Five Year Plan periods. The phases are.

- a) Phase- I: First Five Year Plan (1951-56) to Fourth Five Year Plan (1969-74)
- b) Phase- II: Fifth Five Year Plan (1974-79) to Eighth Five Year Plan (1992-97)
- c) Phase- III: Ninth Five Year Plan (1997-2002) to Twelfth Five Year Plan (20012-17)

In the first phase of the Five-Year Plans, the Union and State ministries had done many notable interventions in the tribal sectors for the promotion of education, health and livelihood of the tribal population. The Central government gave financial supports to the State Ministries for opening hostels for students, distribution of grants and stipend, starting many schools in the tribal concentrated areas with residential facilities, etc. for the promotion of tribal education in the country. Moreover, the Multi-Purpose co-operative societies were established for tribal farmers in the selected states for the availability of financial assistance at the minimum interest rate and reducing the interference of private money lenders in the tribal areas. Furthermore, the Central Ministry gave support to the State governments for starting Multi-purpose

projects in the most deprived tribal areas, for ensuring the welfare of tribal communities through encouraging their agriculture, health, arts and crafts, etc. Thus, the Central Ministry established 43 Special Multi-Purpose Tribal Development Projects (SMTDP) and 504 Tribal Development Block (TDB) in the tribal concentrated areas. Also, the Tribal Research Institute and training centres were opened during this period for conducting intensive research on the tribal communities (Five Year Plan Reports, 1956; 1961; 1966 and 1974).

A revolutionary change in the tribal development occurred during the second phase of the Five-Year plans because of the implementation of the Tribal Sub Plan with the integrationist approach. It aimed at the overall development of tribal communities through the sector-wise implementations of programmes and projects in tribal regions. During this period, the Central Ministry opened the Integrated Tribal Development Projects (ITDP) and Modified Area Development Approach (MADA) in the tribal concentrated regions all over the country. In 1987, the Tribal Co-operative Marketing Development Federation (TRIFED) established, which is the apex body of the State Tribal Development Co-operative Corporations. Moreover, the government started the National Scheduled Caste and Scheduled Tribes Finance and Development Corporation (NSFDC) in 1989. Both are focused on the economic development of the scheduled tribes in the country (Five Year Plan Reports, 1979).

During the third phase of the Five-Year Plans, the Union Ministry gave more emphasis to the development and welfare of socially disadvantaged groups like Scheduled Caste and Scheduled Tribes by including them to

the point 11-A and 11-B of the Twenty Point Programme. Moreover, the Ministry of Tribal Affairs established in October 1999, for giving more attention to the empowerment of Scheduled Tribes in the country. In the 10th Five Year Plan, the government prepared the draft of the National Policy for Empowering the Tribes of India. Also, during this period, the government promoted area-based approaches for tribal development programmes. Thus, the Union Ministry gave more priority to the expansion of tribal education, ability and capacity building programmes, etc. (Five Year Plan Reports, 2002; 2007; 2012 and 2017).

2.3.5 Tribal Sub Plan: A New Initiative

In 1972, the Dubey Committee recommended the comprehensive development of tribal societies in the country. Hence, the Government of India introduced the Tribal Sub Plan in 1974, in the first year of the 5th Five Year Plan, based on the integrationist approach for the overall development of tribes in India. It is a multi-pronged strategy, primarily focuses on the protection and promotion of tribal population, through the enactment of various welfare schemes and developmental projects, and tribal protective laws. The major objectives are the substantial reduction in poverty and unemployment, creation of productive assets, Human Resource Development of tribes with the provision of adequate education and health of people, and provision of physical and financial security against all types of exploitation and oppression. It targets to promote the socio-economic conditions of the scheduled tribes in the country through implementing various developmental and welfare programmes. It also envisages protecting them from exploitation (MoTA, 2017; KSPB, 2012).

The Tribal Sub Plan is the part of Annual as well as Five-Year plans, and it considers as a non-divertible and non-lapsable fund. The budget provisions under the Tribal Sub Plan classify into three such as 100 per cent Centrally-sponsored schemes, 100 per cent State-sponsored programmes, and 50 per cent Centrally and State governments sponsored schemes. The government stipulates to channelise the flow of outlays and benefits from the general sectors to the Tribal Sub Plan, at least in proportion to the total tribal population of the country/state (ISS, 2003; KSPB, 2012). The major fund sources are i. State plans, ii. Fund for special area programmes like SCA to TSP and Grants under article 275 (1) of the constitution, iii. Sectoral programmes of the Central Ministries or Departments and iv. Additional funds from financial institutions for big projects like area developments (MoTA, 2017). The Special Central Assistance to TSP to the States and UTs started in the 5th Five Year Plan for meeting the rapid economic need of tribal regions. But, from the Ninth Five Year Plan onwards, SCA has considered to fill up the critical gap of the family-based income generation activities, coming under the TSP programmes. From the Tenth Five Year Plan onwards, it expanded the functional areas to the employment cum income-generation activities and infrastructure facilities of SHGs or communities. The Grants under Article 275 (1) of the Constitution of India provides the funds for the central sector schemes that focus on the welfare of the tribal communities (NCST, 2007).

2.4 Tribal Development: Kerala Context

The tribal communities in Kerala have divided into two groups, such as Primitive Vulnerable Tribal Groups (PVTGs) and common tribal groups or Non-PVTGs. The PVTGs are the most vulnerable groups when compared to other tribal communities, and they have been living in the interior parts of the forests. So, the government implements special tribal development programmes under the TSP for reducing the rate of poverty among them along with the general tribal population.

2.4.1 Phases of Tribal Development in Kerala

The execution of the Tribal Sub Plan undergoes three phases in the history of tribal development in Kerala. The formation of the Integrated Tribal Development Project (ITDP) under the initiative of Central and State governments represented the milestone in the First Phase (1974-83) of TSP. The purpose of the ITDP is to formulate and implement households or community based tribal development programmes in the project areas. In the Second Phase (1983-97), the government emphasised a District-wise decentralized policy in the formulation and implementation of the Tribal Sub Plan, instead of direct execution of funds at State level. In the third phase (1997 onwards), the Kerala government earmarked a portion of the Budget provisions of the TSP to the local governments as the part of State's decentralisation policies. The Local Government involvements to the programmes under the TSP are a remarkable revolution in the history of tribal developments in Kerala (KSPB, 2008 and 2012). The people from deprived societies in the state receive an opportunity to be the part

of the decision-making processes of developmental programmes in their locality through the “Orukoottam” (Baiju, 2011; Rajesh, 2015).

2.4.2 Major Tribal Development initiatives in Kerala

The guidelines of the TSP instruct that the Union and State Ministries should allocate the budget provisions of the TSP, according to the proportion of the tribal population in the state or country. But, 12th Five Year Plan onwards, the Government of Kerala has been allocating nearly 3 per cent of the budget provisions towards TSP every year even though the tribal population is 1.45 per cent in the State (Kerala Economic Review, 2017). After the formation of Niti Aayog, the Central Ministry has changed the pattern of fund allocation of various Plan and Non-Plan schemes under the Annual and Five-Year Plan periods and modified the guidelines of the Central Schemes under the TSP, since June 2017 (MoTA, 2017). But the Kerala government has been following the existing system for the planning of budget allocation such as the Annual and Five-Year Plan programmes. The major tribal development programmes in the State under the Five-Year Plans divide into three phases, and each phase includes four Five Year Plan periods. The phases are.

- a) Phase- I: First Five Year Plan (1951-56) to Fourth Five Year Plan (1969-74)
- b) Phase- II: Fifth Five Year Plan (1974-79) to Eighth Five Year Plan (1992-97)
- c) Phase- III: Ninth Five Year Plan (1997-2002) to Twelfth Five Year Plan (20012-17)

In the First Phase of the Five-Year Plan, the Government of Kerala formulated and executed various schemes and programmes for the backward communities through the Harijan Welfare Department. Initially, it started many schools in the tribal regions, particularly residential schools for the educational empowerment of tribal students. Moreover, the department implemented notable interventions in tribal areas such as the provisions for mobile medical units, construction of houses, the establishment of colonies or settlements, started functional Industrial training centres and production-cum-training centres, etc. In 1972, the State government started the Pre-Examination Training Centre at Ernakulam and Tribal Research and Training Institute at Kozhikkode. The important landmark in the development activities of backward communities was the opening of the Harijan Development Corporation for the upliftment of the Scheduled Castes and Scheduled Tribes in Kerala (Kerala Economic Review, (1963-1974).

In the second phase, the Union Ministry introduced the Tribal Sub Plan for the tribal development programmes to the overall development of the tribal communities. Moreover, in 1975, the Government of Kerala formulated the Directorate of Tribal Welfare for the promotion of the welfare of the tribal communities in the state. Furthermore, the Union Ministry selected Attappady for opening ITDP in Kerala, for the direct control of the tribal development activities. Like, ITDP Attappady, the Government of Kerala started seven ITDPs in all over the state during the period 1975-1980. Besides, the state government conducted a Socio-economic survey about tribal communities in 1979. Moreover, the State Government started the Girijan Service Co-operative Society in various

tribal regions to protect the tribal communities from the exploitation of contractors or middlemen in the collection and marketing of forest produces. Also, for the promotion of the tribal health sector, the government started Ayurvedic and Allopathic dispensaries, mid-wife centres, and mobile medical units in the tribal areas. Furthermore, the Scheduled Tribe Development Department in Kerala launched a Special Tribal Literacy Programme to the tribal communities for reducing the illiteracy among the tribal communities (Kerala Economic Review, (1975-1997).

In the third phase, the Government of Kerala executed the Democratic Decentralization, which has revolutionised the history of tribal developments in the state. Subsequently, the government has been allocating a part of the TSP funds for the LSGIs. Moreover, like Gramasabha, Oorukoottam has been functioning in the tribal areas for conveying the information, and the formulation and implementation of various tribal developmental schemes. The special projects like the Sugandagiri Cardamom Project, Priyadarshini Tea Estate, Pookkod Dairy Project, etc. started in this period under the Tribal Development Department for the rehabilitation of tribal communities in the State. The Maithry scheme for housing construction was implemented during the period 1999-2000 and also distributed 2862 acres of land to the landless tribes in the eight districts under the scheme 'Tribal Mission Rehabilitation Programme'. Also, the government has been implementing several schemes like education, health, and livelihoods, etc. in the tribal areas for the overall socio-economic development of the tribal population (Kerala Economic Review, (1998-2018).

2.5 Status of Scheduled Tribes in Kerala

Since the first Five Year Plan, the Government has been providing substantial financial assistance to various schemes and special projects to the overall development of the aboriginals. However, the kinds of literature reveal that despite the government has been providing a huge amount of financial assistance, the Scheduled Tribes continue to be facing landlessness, wretched housing facilities, absence of infrastructure facilities, and low health status (Economic Review, 2018; SPB, 2008; STDD 2013). The section divides into several sectors, such as education, health, employment, availability of infrastructure facilities, and land ownership, for assessing the current socio-economic status of the tribal communities.

2.5.1 Status on Land availability among Scheduled Tribes

The land has a pivotal role in determining the socio-economic status of tribal communities, by the ways of providing not only give livelihood support but also it gives a place of social-network in their rituals and celebrations (Mathur, 1977; Kunhaman, 1979). Moreover, it acts as a tool for the protection of health as well as the promotion of education of the tribal population. It can be understood in the disparities between the progressive and deprived tribal groups in the education, health, and livelihood options (STDD, 2013). So, the displacements or the alienations of lands has been adversely impacted the lives of tribal communities by the ways of reducing their income from land and other allied activities like cattle feeding. The tribal economy became more collapsed as an outcome of land alienation due to the migration of non-tribes to the tribal lands (KFRI, 1991).

According to various government reports, the number of landless tribal people was very high in Wayanad and Palakkad districts. As per the survey conducted by the 'Tribal Rehabilitation and Development Mission' (TRDM) in 2001, there were 13,301 landless tribal families in Wayanad district only. They prepared a comprehensive plan for identifying the lands for distribution to the landless people. But due to external political influences, the government suddenly stopped every action of land distribution under the TRDM (Menon, 2010). Afterwards, the socio-economic survey conducted by the Tribal Development Department in 2008 indicated that only 1979 families were landless. During this period, TRDM distributed 8,568 acres of land to the 6,413 landless tribal families in all over Kerala (Economic Review, 2008). According to the ITDP statistics, the tribal communities in Attappady lost nearly 4,064 hectares of land during the period 1960-1977, due to the migration of non-tribes and their encroachments on tribal lands by giving alcohol or tobacco to the tribal members. Even if the Kerala High Court ordered the recapture of the lost tribal lands, but the government did not take any action on the restoration of lands. But, in 1996, the Government of Kerala introduced a new Bill that the Kerala Scheduled Tribes (Restriction of Transfer of Land and Restoration of Alienated Lands) Amendment Bill. It legitimised all illegal land transactions done by the non-tribes in the tribal regions during the period 1960 to 1986 (Suchithra, 2013). Many studies reveal that a lot of tribal lands were alienated before the 1990s. Moreover, the majority of landless families were from deprived tribal communities like Panaiyar, Adiyar, Eravaller, etc. when compared to the progressive tribal communities (STDD, 2013). In this context, we can understand that not

only the migration of non-tribes and their encroachment of tribal lands but also the traditional poverty and structural inequality has been contributing to the increasing number of landless families among tribes.

The Government of Kerala has distributed the lands to the tribal communities through various rehabilitation projects to ensure sustainable livelihood income. But, in some contexts, these projects, like the Attappady Co-operative farming society, Cheengeri Tribal Rehabilitation Projects, Sugandhagiri Cardomom Rehabilitation Project, etc. were failed due to lack of proper monitoring and mismanagement of authorities. In some cases, the government not only hesitated to handover the property right to the real beneficiaries of this project but also the state government took the ownership right on rehabilitated land (Vinesh, 2014; Menon, 2010; Paniyasadass, 2010). It revealed the lack of credibility of the government on keeping the agreement of the distribution of land to the tribal communities. Moreover, it indicates the failure of the concerned department in policy formulation and the implementation of rehabilitation projects of tribal communities.

As per Kerala Economic Review 2018, from 2013 to 31.8.2018, the Government of Kerala distributed 350.78 acres of land for 811 tribal families. But some studies showed that the government distributed isolated lands that nearby the forest areas without any infrastructure facilities. Moreover, in most of the cases, these lands were unfit for residing and doing cultivation because of animal attacks and water scarcity. Furthermore, political influence was higher in the distribution of lands (Vinesh, 2014; Paniyasadass, 2010; Sreerekha, 2012). The mainstream political parties do not consider tribes as a political force. Consequently,

they hesitated to interfere with the issues of tribes. The nature of distributed lands revealed that the current land distribution system does not consider the fundamental needs of the tribal population like poverty eradication and long-term sustainable assistance, etc.

2.5.2 Infrastructure facilities of the Scheduled Tribes

The infrastructure facilities of the tribal families commonly assess based on the availability and ownership of houses, drinking water facilities, road accessibility, sanitation facilities, electrification and nature of domestic cooking fuel, etc. According to the Report on the Socio-Economic Survey of Tribal Communities in Kerala, the majority of tribal families lived in their own houses, and 40 per cent of them were dilapidated houses. Moreover, 50 per cent of houses did not have sufficient space for family members. Additionally, most of the houses did not have a kitchen inside the houses. The majority of tribal families used firewood for cooking. As per the report, more than 50 per cent of the tribal houses and 25 per cent of the tribal hamlets were unelectrified in Kerala. Furthermore, nearly half of the tribal families did not have toilet facilities at hamlets/houses, especially in Wayanad, Palakkad, Kasaragod, and Idukki. The report also indicated poor availability of drinking water facilities in tribal regions and higher water scarcity for at least six months. Consequently, some families need to walk more than 500 meters for collecting drinking water. The road accessibility is very poor in the interior part of tribal hamlets, especially in the forest areas. The overall findings in the Report on the Socio-Economic Survey of Tribal Communities in Kerala indicated that the availability of infrastructure facilities in tribal hamlets/houses was comparatively low.

According to the Census data 2011, the infrastructure facilities in the tribal houses and hamlets were comparatively low when compared to the general population in the state. The report showed that the dilapidated tribal houses were 16.3 per cent, which was much higher than the general ratio. Most of the tribal houses were electrified. Only 36 per cent of the tribal families received quality water when others used non-treated water. Moreover, nearly 30 per cent of tribal families do not have latrine facilities. However, when compared to the Socio-Economic Survey of Tribal Communities in Kerala in 2008, data on the Census 2011 reveals that the overall status of infrastructure facilities among tribal communities has improved. According to the Kerala Economic Review 2018, from 2009-10 to 31.8.2018, nearly 15,650 houses were constructed in the tribal regions under various housing schemes like Life Mission, Vanabandhu Kalyan Yojana, Hudco, and general housing schemes. Consequently, the number of houseless tribal families reduced. Moreover, the Tribal Development Department has been allocating huge amounts of funds for infrastructure developments in tribal settlements under various schemes such as Ambedkar Settlement Development Schemes, schemes implemented under Article 275 (1) of the Constitution of India and Vanabandhu Kalyan Yojana (STDD, 2017). However, in the interior part of tribal regions, the tribal families have been facing several difficulties like the lack of availability of travelling facilities, drinking water scarcity, etc.

2.5.3 Educational Status of the Scheduled Tribes

The British rulers demotivated the socialisation of tribal communities by the implementation of the isolationist approach. Moreover, they

hesitated to give more priority to tribal education due to the high expenditure. So, they appointed missionaries in the tribal areas for the educational promotion of these communities (Sujatha, 1999). Subsequently, in 1878, Hendry Baker Junior opened a school at Melukavu for the education of Malayarayar families, who were the real beneficiaries of missionary education in Kerala (Peter, 2003). The other tribal communities could not receive such educational facilities before independence. But, in post-independence India, the constitution of India granted freedom for Scheduled Tribes to study with the support of the government. It was a revolutionary decision of the government for the tribal population in the country. In general, modern learning has given more importance to the transition from the ascriptive, caste-bound, pre-capitalistic social structure to a more egalitarian and free society. It enabled the backward society to search and engage in new patterns of occupations (Kamat, 1981). According to the Report on the Socio-Economic Status of Tribal Communities in Kerala 2008, the literacy rate of the tribal population was 74.44 per cent. Moreover, it indicated the proportion of students in the higher education courses was low (6.02 %) when compared to the pass percentage of the HSS examinations, especially among the deprived communities like Paniyar, Eravaller, Adiyar, etc. (Paniyasadass, 2010; STDD, 2013).

The Union and State Ministries have been executing several schemes for enhancement of the tribal education sector under the tribal development programmes, since the first Five-Year plan. The Kerala Economic Review 2018 showed some notable progress in the educational status of the Scheduled Tribes when compared to the educational statistics

of the socio-economic survey of the Scheduled Tribes 2008. In the academic year 2018-19, the enrolment ratio of the tribal students in the primary class was 2.02, and the majority of them joined in the government schools. Moreover, it is noteworthy the dropout rate of tribal students has decreased from 2.27 per cent (2016-17) to 1.42 per cent in the academic year 2017-18. Furthermore, the pass percentage of the students in SSLC and HSS (62.22 per cent) examination increased from the previous academic year. However, the proportion of tribal students in higher education courses was comparatively low when compared to the pass percentage in SSLC/HSS examinations. It is worth mentioning the insignificant proportion of tribal students in the technical and professional courses in the state. Furthermore, the dropout rates of tribal students in schooling and higher education courses were greater than dropout rates of students in the general society. In this context, it observed some lacunae in the educational development programmes and the substantial needs of the tribal students. It links with their structural inequalities and traditional poverty, particularly in the case of deprived tribal communities.

2.5.4 Health Status of the Scheduled Tribes

Article 21 of the Constitution of India provides the fundamental rights to the people to live, which means that people have the right to food and basic needs. Moreover, the state is responsible for protecting the basic need of the people (Rozario, 2013). In the case of tribal communities, the Union and State Ministries are equally responsible for the protection of their health. Hence, they have been allocating significant amounts of funds for the tribal health sector under the Tribal Sub Plan. According to

the National Family Health Survey Report (2015-16), in Kerala, among the tribal communities, the teenage pregnancies were highest between the age group 15-19 years. It also noticed that the fertility rate of tribal communities was 2.31 when the fertility rate of general societies in Kerala was 1.56. Moreover, the majority of tribal women were not conscious about personal hygiene because of the lack of knowledge, unhygienic living environment, and a higher rate of poverty. Thus, it created many health issues among tribal women in the State. When compared to the general population, the rate of undernutrition, as well as anaemia, was higher among the tribal women and children, especially during the period of pregnancy (Ekbal Committee, 2013; Mohindra, 2003; NFHS, 2015). In 2013, the National Institute of Nutrition surveyed in Attappady observed that the IMR of tribal communities in Attappady was 66 deaths per 1,000 births. At the time, the IMR of Kerala was 12 (Fact Checker, 2016; Manikandan, 2014). Similarly, according to the UNICEF Report, 2013, the IMR rate among the tribal communities in Wayanad was 41.4 (Economic Times, 2014; Narain, 2019). However, the information about IMR, MMR, Neo-Natal Mortality rate of tribal communities in Kerala are not available in any public domain or any statistical reports of the Union and State Ministries, particularly after Census 2001. Thus, the lack of information in the public domains creates difficulties for understanding the actual health status of tribal communities, especially when increasing the rates of child deaths in some tribal regions like Attappady and Wayanad.

In Kerala, the Tribal Development Department has been implementing various schemes like Mobile hospital services, ambulance facilities, monthly medical checkup facilities, special assistance for Sickle cell

anaemia, TB, Leprosy, etc. Also, the State Government included the Scheduled Tribes to the Comprehensive Health Insurance Scheme (CHIS). Furthermore, many PHCs and other health service programmes have been effectively servicing in tribal areas under the Ardrum Mission of the state government. However, the tribal communities showed the lowest health status than the general societies in the state.

2.5.5 Employment Status of the Scheduled Tribes

The backwardness of tribal communities indicates the rate of poverty and vulnerability. It is a consequence of economic instability caused by inadequate employment opportunities and the lack of sustainable livelihood options. Varis (2008) reveals that the reason behind the poverty among marginalised societies such as Scheduled Tribes, Scheduled Caste, and Fishermen is that principally depends on the traditional sectors for livelihood rather than the modern sectors. In his view, the overall economic growth of a country primarily depends on modern sectors. Therefore, the expansion of modern sectors means that the shrinking of the traditional sector. In the case of tribal communities, it destroyed the employment opportunities and the traditional economy of tribal communities. The previous studies disclosed the destruction of the traditional economy of tribal communities in the State was caused by the encroachment of tribal lands by migrants for attaining greater economic stability and expansion of their agriculture land, and market of their products (KFRI, 1991; Paniya Sadass, 2010). Moreover, due to the cultural and economic impact of the immigrant society, the tribal society has undergone the transition from the pre-agriculture economy to the

semi-agriculture economy, and finally, they shifted to the agriculture economy of the migrant society (Kamat, 1981). It caused a fall in the ratio of tribal cultivators. Since the 1960s, the land alienation and landlessness lead to the negative occupational transition of the tribal communities and consequently increased the number of agricultural workers among the tribal communities. It also led to an increase in the main/marginal work participation rate of tribal communities (KDR, 2008).

The state government has been implementing several livelihood programmes/projects among the tribal communities under the Tribal Sub Plan for the sustainable income of tribal families. However, it was not sufficient for the economic development of the tribal society, particularly in the case of deprived tribal communities (Kerala Economic Review, 2017; STDD, 2013). Because of the landlessness or minimum land availability, they get only short-term livelihood assistance like cattle, domestic fowls, etc. Moreover, most of the long-term livelihood programmes primarily target tribal cultivators with the sizable amounts of agriculture lands. Nothing but, the majority of them belongs to the progressive and moderate tribal communities (Paniyasadass, 2010; Velluva, 2004). It revealed that progressive families received more support from the government for income generation than the deprived groups. Because of landlessness, low educational qualification, lack of skilled job training and poor job opportunities, majority of the tribal members engaged in labouring works, particularly they consider MGNREGA as a prime source of income (KFRI, 1991; Rajasenan et.al, 2013; Rozario, 2013). In this context, Sen's capability concept is more relevant as poverty is the outcome of the lack of human capabilities (Sen, 1995).

2.6 Service Delivery in the Tribal Areas

Even though the Union and State Ministries implement several schemes for tribal welfare and developments, its effectiveness mainly depends on the service delivery of the concerned authorities. The Tribal Development Department and LSGIs are the principal service providers in the tribal regions (STDD, 2017, SPB, 2008). There have been working many para-workers in the tribal areas as a part of service mechanism of various government departments such as Promoters, Asha Workers, Health Workers, Animators of Kudumbashree, etc. However, previous studies reveal that the tribal members were significantly dissatisfied with the services of the para-workers in tribal areas. Moreover, due to the misbehaviours of doctors and other medical staffs and also the negligences to provide adequate medical supports, the tribal patients have hesitated to go for the government hospitals in some tribal regions (Rozario, 2013). Likewise, the ASHA workers showed poor performance in most of the tribal areas because of the absence of adequate training and lack of distribution of medical kits to them (Suchithra, 2013). The tribal families were comparatively dissatisfied in the service delivery of the Anganwadies due to poor performance and lack of proper monitoring from government authorities. It happened because of the shortages of higher officials and lack of vehicle facilities for visiting in the interior part of the tribal areas (Ekbal Committee, 2013). The service delivery of the sources of information like Promoters, ward members, Oorukoottam, ASHA workers, Anganwadi teachers, etc. in the tribal regions was ineffective. In most of the cases, they hesitated to conduct the field visits periodically and share the information at the right time. It generated

hurdles in the service delivery of tribal areas. Moreover, some projects became a failure due to the lack of proper monitoring and evaluation of tribal development programmes (Baiju, 2011; Chathukulam et. al. 2011; SPB, 2008). The studies conducted in the tribal areas indicate how the lack of capabilities of society and the absence of proper planning and monitoring in the government system can adversely affect the effectiveness of socio-economic activities of backward communities.

2.7 The lacunae in between development discourses and the tribal development programmes in Kerala

In all over the world, particularly during the last century, several discourses were conducted about the concepts and practices of development based on various paradigms. It pointed out only the Growth-Centred Approach, a modern concept of development followed by the international development agencies like IMF, World Bank, etc. It primarily targeted the economic growth of the country rather than human development. Thus, the international agencies used their components like GDP, PCI, etc. for measuring the economic growth of the country. However, the Growth-Centred Approach criticized by many economists and social activists due to give more importance to the growth and expansion of GDP and PCI than the status of equity and equality within the country. Many of them argued the Growth-Centred Approach could not make any transformation in the lives of people. But they fervently believed that once a society reached into the attainments of human development, they may generate more development outcomes than the Growth-Centred Approach. Subsequently, the Human Development

Approach evolved out of this debate (Parameswaran et.al, 2015; World Bank, 2013). Consequently, UNDP used the indicators of the concept of human development for the preparation of the Human Development Report of various countries. In 2005, the Government of Kerala prepared the first Human Development Report of the state.

The kinds of literature showed there were strong disparities in the distribution of development outcomes of the country according to the communities/regions/states. In a broad sense, it created two categories of people, such as wealthy and non-wealthy people. Consequently, the discourses on the concepts of development moved from human development to the human deprivation. Moreover, some economists argued that the deprivation rates of a society/community/region could be assessed by using different indicators such as the possession of assets, accessibility of different infrastructure facilities, education and health status, and availability of employment opportunities (KHDR 2005; UNDP, 2018). It led to the concept of deprivation index. Consequently, the concepts of the deprivation index and the deprivation assessment have provided a novel face to the development debates. It has strengthened development concepts by the ways of assessing the development status of a society from a disaggregate perspective rather than assessing to a macro perspective.

Later, the eminent economist Amartya Sen introduced the Capability Approach to the development discourses instead of the conventional Growth-Centred and Deprivation-Centred Approaches. He turned the macro-level perspective of development to the micro-level by connecting the concept of development to the entitlements as well as the capabilities

of individuals. He argued that development offers more freedom for the transformation of an individual through the promotion of human capabilities (Sen, 1999). This approach gave a modern face to development discourses by providing various indicators for assessing the development status of the society. Moreover, it revealed that a society with traditional social capabilities gained more benefits of development than a society that traditionally possessed no social capital. Thus, Sen argued that the availability of education, health facilities, basic infrastructure facilities, basic income, and assets were the principal tools for enhancing the capabilities of individuals (Sen, 1987). In this context, it is worth mentioning that the social capital and distribution of power structures in society carry vital roles in designing the development status of a society. Moreover, the development debate implies that the attainments of social capital, as well as the negotiation potential of society, play a pivotal role in achieving the benefits of development in a society. In short, the development discourses indicated that there had been gradual progress and evolution in the development concepts in all over the world, which started from the growth-centred approach and moving to human development, deprivation, and capability framework.

Generally, the deprived societies live outside the traditional forms of social capital, such as political party affiliation, engagements in social networks, affiliation with financial institutions, etc. (Alkire, 2002). Thus, the majority of the developmental discourses given more importance to the economic progress of the middle-income or higher-income groups rather than the need and progressiveness of deprived communities. But the Sen's Capability Approach given more priority to the development of

deprived societies. Due to the historical backwardness and isolation from the mainstream society, the tribal communities stay away from the modern development concepts even though they have been getting supports from various development programmes of governments. It indicates the development concepts of the mainstream society differ from development concepts of the deprived society. It revealed that development discourses around the world have not been able to bring about a broad change in the concept of tribal development in India. It is noteworthy that the government fails to implement a broader theoretical paradigm that can address the poverty of tribal communities, along with the basic need approach (MoTA, 2017; ISS, 2003; SPB, 2008).

The state government allocates the budget provisions for the tribal development programmes according to the population proportion of tribal communities from the state-level to the ward-level. Moreover, the government has been formulating a universal approach rather than a community/household/individual level approach for the policy framework of tribal developments. Consequently, they have not been giving more priority to the socio-economic status and categories of tribal communities for the distribution of various schemes except in the case of primitive tribal groups (Baiju, 2011; STDD, 2017). It resulted in the continuation of the poverty of some disadvantaged groups within tribal communities. Moreover, it did not consider the concept of capability and deprivation for the policy framework of tribal development programmes to the various sectors, especially in livelihood, along with the basic need approach. Consequently, because of the lack of employment assistance and the absence of sustainable livelihood options, the deprived tribal groups

became more deprived. Moreover, the earlier studies have revealed that the state government has lagged for assigning adequate priority to the deprived tribal communities who aback in the basic capabilities, like asset ownership and educational attainments, in the formulation and implementation of various projects (Paniyasadass, 2010).

In this context, we tried to develop a framework of the study in Chapter 2, according to various indicators of development discourses were done all over the world over the last few decades. Moreover, it primarily focused on the micro-level analysis rather than macro-level. Thus, the study analysed the socio-economic status of the tribal communities in a comparative method based on the household/individual perspective rather than the hamlets/community perspective. Subsequently, it categorised the tribal communities into advanced, moderate, and deprived groups. Moreover, the study categorised into various sections like landholding and housing, availability of infrastructure facilities, education and health status, availability of services from various government institutions, etc. Also, it identified that the lack of capabilities and the absence of support for capacity building are the notable reasons for the socio-economic backwardness of tribal communities along with their traditional inhibitions. Thus, the study tried to understand the role of the Tribal Sub Plan in human capability formation of tribal communities in the state based on the inter-community comparison.

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DEMOGRAPHIC PROFILE OF THE SELECTED TRIBAL COMMUNITIES: AN ANALYSIS

- 3.1 *Profile of Selected Scheduled Tribes*
- 3.2 *Profile of Grama Panchayath*
- 3.3 *Demographic Profile of the Households of Selected Tribal Communities*

According to the Census 2011, the total tribal population in Kerala was 4, 84,839 which constituted 1.45 per cent of the total population in the state. The majority of tribal communities lived in Wayanad, Idukki, Palakkad, Kasaragod, and Kannur districts. Among 35 tribal communities in Kerala, five categories are Particularly Vulnerable Tribal Groups (PVTGs), who residing in the middle and the northern parts of the state. The dominant tribal communities in the state are Paniyar (88,450), Kurichyar (35,171), Malayarayar (33,216), Mavilan (30,867), Kurumar (24,505), Muthuvan (23,746), and Irular (23,721). In this study, we selected six tribal communities under various socio-economic backgrounds in three tribal concentrated districts in Kerala for understanding the overall disparities between the tribal communities.

The Census Reports (1991-2011) showed that within two decades, the population growth rate of these six tribal communities declined at the state level. Likewise, the District-wise data reveals that the population

growth rate of Kurichyar, Paniyar, Malayarayar, Urali, and Irular has decreased within two decades, except Eravaller in Palakkad. Moreover, the district-wise Census data (2001 & 2011) indicated the population proportion of the members at age groups below 20 years declined within one decade among six tribal groups. Hence, in Chapter Three, we analysed the role of demographic indicators of tribal households in the socio-economic backwardness of the tribal population. It deals with the profile of six tribal communities, five Grama Panchayaths, and the demographic details about the tribal households. The data about the Total Dependency Ratio, marital status, longevity of the family members, gender composition, etc. reveals the factors influencing the socio-economic capabilities of tribal communities.

3.1 Profile of Selected Scheduled Tribes

The profile of six tribal communities was prepared based on the reports of Census 2011 and the report on the Socio-Economic Status of Scheduled Tribes of Kerala, 2013.

3.1.1 Profile of Scheduled Tribes in Kerala

No. of households in Kerala	: 140,468
Total Population in Kerala	: 484,839 (M- 2,38,203; F- 2,46,636)
Population in 0-6 age group	: 54,463 (M- 27,947; F- 26,516)
Population above 60	: 44,473 (M- 20,812; F- 23,661)
No. of literate	: 3,26,272
No. of illiterate	: 1,58,567
Attained school level education	: 2,12,611
Attained higher education	: 15,392
Total workers	: 2,30,265 (M- 138,952; F- 91,313)

3.1.2 Profile of Paniyar community

No. of households in Kerala	: 19,331
Total Population in Kerala	: 88,450 (M- 42,775; F- 45,675)
Population in 0-6 age group	: 11,859 (M- 6,010; F- 5,849)
Population above 60	: 7,023 (M- 3,153; F- 3,870)
No. of literate	: 48,396
No. of illiterate	: 40,054
Attained school level education	: 27,141
Attained higher education	: 1,75
Total workers	: 44,017 (M- 24,504; F- 19,513)
District in highest population	: Wayanad
Total population	: 66,068 (M- 32,034; F- 340,34)
Block Panchayath in highest population	: Mananthawadi
Highest tribal concentrated Grama Panchayath	: Panamaram
Motherland Traditional Occupation	: Bonded labours
Major Occupations	: Agriculture Labours/ Manual labours
Land ownership	: Community/ household land
Tribal category	: Backward and poorest

3.1.3 Profile of Kurichyar community

No. of households in Kerala	: 8,583
Total Population in Kerala	: 35,171 (M- 17,643; F- 17,528)
Population in 0-6 age group	: 3,618 (M- 1,858; F- 1,760)
Population above 60	: 2,983 (M- 1,495; F- 1,488)
No. of literate	: 26,378
No. of illiterate	: 8,793
Attained school level education	: 19,694
Attained higher education	: 8,08
Total workers	: 16,982 (M- 10,758; F- 6,224)
District in highest population	: Wayanad
Total population	: 25,093 (M- 12,746; F- 12,347)
Block Panchayath in highest population	: Mananthawadi
Highest tribal concentrated Grama Panchayath	: Thavinjal
Motherland	: Kerala- Migrant from Vaikom-Kottayam to Wayanad, Kannur
Traditional Occupation	: Tribal warriors, Tribal healers, Cultivators
Major Occupations	: Cultivators, Tribal healers, Govt. job, Agriculture labours
Land ownership	: Household land + agricultural land
Tribal category	: Advanced

3.1.4 Profile of Malayarayar community

No. of households in Kerala	: 10,298
Total Population in Kerala	: 34,784 (M- 17,384; F- 17,760)
Population in 0-6 age group	: 2,944 (M- 1,555; F- 1,389)
Population above 60	: 4,824 (M- 2,334; F- 2,490)
No. of literate	: 30,448
No. of illiterate	: 4,336
Attained school level education	: 20,813
Attained higher education	: 3,572
Total workers	: 15,773 (M- 10,360; F- 5,413)
District in highest population	: Idukki
Total population	: 17,223 (M- 8,636; F- 8,587)
Block Panchayath in highest population	: Ilamdesham
Highest tribal concentrated Grama Panchayath	: Velliamattom
Motherland	: Kerala, Kottayam and Idukki
Traditional Occupation	: Cultivators
Major Occupations	: Cultivators, Govt. job, Labours
Land ownership	: Household land + agricultural land
Tribal category	: Advanced

3.1.5 Profile of Urali community

No. of households in Kerala	: 3,298
Total Population in Kerala	: 11,129 (M- 5,602; F- 5,577)
Population in 0-6 age group	: 1,126 (M- 5,70; F- 5,56)
Population above 60	: 1,049 (M- 5,03; F- 5,41)
No. of literate	: 8,049
No. of illiterate	: 3,310
Attained school level education	: 5,304
Attained higher education	: 198
Total workers	: 6,171 (M- 3,585; F- 2,586)
District in highest population	: Idukki
Total population	: 6,501 (M- 3,321; F- 3,180)
Block Panchayath in highest	
Population	: Ilamdesham
Highest tribal concentrated	
Grama Panchayath	: Velliamattom
Motherland	: Tamilnadu, Madurai
Traditional Occupation	: Food gathering, Collection of NTFP, Shifting Cultivation
Major Occupations	: Cultivators, Agriculture labours
Land ownership	: Household land + agricultural land
Tribal category	: Moderated

3.1.6 Profile of Irular community

No. of households in Kerala	: 6,710
Total Population in Kerala	: 23,721 (M- 11,766; F- 11,955)
Population in 0-6 age group	: 2,576 (M- 1,320; F- 1,256)
Population above 60	: 1,918 (M- 9,51; F- 9,67)
No. of literate	: 13,280
No. of illiterate	: 10,441
Attained school level education	: 8,561
Attained higher education	: 3,35
Total workers	: 12,370 (M- 6,860; F- 5,510)
District in highest population	: Palakkad
Total population	: 23,258 (M- 11,604; F- 11,654)
Block Panchayath in highest population	: Attappadi
Highest tribal concentrated Grama Panchayath	: Agali
Motherland	: Tamilnadu, Coimbatore
Traditional Occupation	: Food gathering, Hunters Shifting ultivation
Major Occupations	: Cultivators, Agriculture labours
Land ownership	: Community land + agricultural land
Tribal category	: Moderated

3.1.7 Profile of Eravaller community

No. of households in Kerala	: 1,302
Total Population in Kerala	: 4,797 (M- 2,362; F- 2,435)
Population in 0-6 age group	: 5,33 (M- 2,72; F- 2,61)
Population above 60	: 4,32 (M- 2,06; F- 2,26)
No. of literate	: 2,259
No. of illiterate	: 2,538
Attained school level education	: 1,499
Attained higher education	: 30
Total workers	: 2,800 (M- 1,536; F- 1,264)
District in highest population	: Palakkad
Total population	: 4,755 (M- 2,336; F- 2,419)
Block Panchayath in highest population	: Kollengode
Highest tribal concentrated Grama Panchayath	: Muthalamada
Motherland	: Tamilnadu, Coimbatore
Traditional Occupation	: Hunters, Agriculture labours
Major Occupations	: Agriculture labours
Land ownership	: Settled colony
Tribal category	: Poor and Backward

3.2 Profile of Grama Panchayath

The profile of five Grama Panchayaths provides primary information regarding the total population of panchayath, year of formation, boundaries, etc. It was prepared based on the data on Census 2011 and the website of LSGIs in Kerala.

3.2.1 Thavinjal Grama panchayath

District	: Wayanad
Block Panchayath	: Mananthavadi
Year of formation	: 1937
Name of Villages	: Valad, Periya and Thavinjal
Area of Grama Panchayath	: 142.3 km ²
Boundaries	
North	: Kottiyoor & Thirunelli Panchayath
South	: Thondarnad and Edavaka Panchayath
East	: Mananthavadi Panchayath
West	: Thondarnad Panchayath
Total number of households	: 9,257
Total Population	: 39,813 (M- 19,685; F-20,128)
Population of SC	: 1,557 (M- 7,84; F- 7,73)
Population of ST	: 7,676 (M- 3,877; F-3,799)

3.2.2 Panamaram Grama panchayath

District	: Wayanad
Block Panchayath	: Mananthavadi
Year of formation	: 1962
Name of Village	: Panamaram, Anjukunnu, Perukattoor and part of Nadavayal
Area of Grama Panchayath	: 80.90 km ²
Boundaries	
North	: Pulppalli and Mananthavadi Panchayath & Reserve Forest
South	: Kaniyampatta and Poothadi Panchayath
East	: Poothadi Panchayath
West	: Vellamunda and Edavaka Panchayath
Total number of households	: 10,334
Total Population	: 45,627 (M- 22,668; F-22,959)
Population of SC	: 1,026 (M- 5,06; F- 5,20)
Population of ST	: 10,815 (M- 5,286; F-5,529)

3.2.3 Velliamattom Grama panchayath

District	: Idukki
Block Panchayath	: Ilamdesham
Year of formation	: 1963
Name of Villages	: Velliyamattom, Alakkod and Aarakkulam
Area of Grama Panchayath	: 36.6 km ²
Boundaries	
North	: Udumbannoor Panchayath
South	: Kudayathoor Panchayath
East	: Aarakkulam Panchayath
West	: Alakkod Panchayath
Total number of households	: 5,362
Total Population	: 21,440 (M- 10,703; F-10,737)
Population of SC	: 1,054 (M- 5,41; F- 5,13)
Population of ST	: 5,102 (M- 2,603; F-2,499)

3.2.4 Muthalamada Grama panchayath

District	: Palakkad
Block Panchayath	: Kollangode
Year of formation	: 1954
Name of Villages	: Muthalamada I & II
Area of Grama Panchayath	: 66.76 km ²
Boundaries	
North	: Pattanjeri & Vadavannur Panchayath
South	: Nenmara & Nelliampathi Panchayath
East	: Tamil Nadu
West	: Kollangodu Panchayath
Total number of households	: 8,698
Total Population	: 37,060 (M- 18,401; F-18,659)
Population of SC	: 6,428 (M- 3,100; F- 3,328)
Population of ST	: 4,767 (M- 2,385; F-2,382)

3.2.5 Puthur Grama panchayath

District	: Palakkad
Block Panchayath	: Attappadi
Year of formation	: 1968
Name of Villages	: Padavayal & Puthuzha Panchayath
Area of Grama Panchayath	: 413.47 km ²
Boundaries	
North	: Tamil Nadu
South	: Sholayoor, Agali, Thengara & Kumaramputhur
East	: Sholayur Panchayath & Tamil Nadu
West	: Kottoppadam & Alanalloor Panchayath
Total number of households	: 3,495
Total Population	: 12,170 (M- 6,063; F-6,107)
Population of SC	: 558 (M- 2,79; F- 2,79)
Population of ST	: 8,131 (M- 4,028; F-4,103)

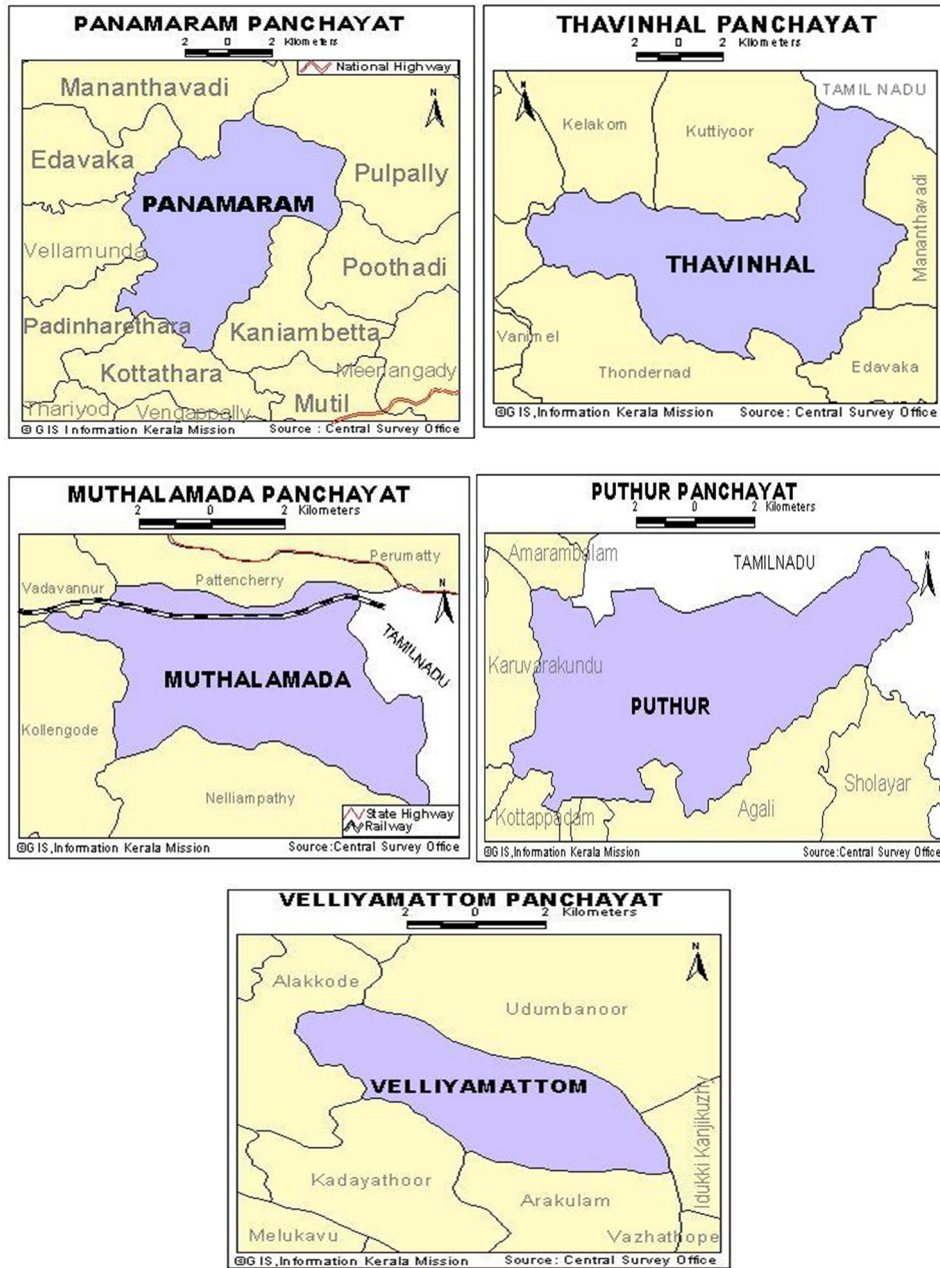


Figure 2.1 Location Map of Grama Panchayat

3.3 Demographic Profile of the Households of Selected Tribal Communities

This section appertions with vital statistics of the demographic indicators of tribal households such as gender composition, family size, dependency ratio, life expectancy, and marital status of family members. The demographic statistics of tribal families indicated the Malayarayar and Paniyar communities possessed the lowest and largest family size (Table 3.1), respectively. While, according to hamlet wise data, the deprived tribal groups like the Eravaller and Paniyar communities illustrated the smallest and largest family size. However, the majority of tribal families had three to six members (Table 3.2). It is also noted that when compared to the male, the female population proportion was low at the age groups between 0-15. And, the male population proportion was low at the age groups between 36-45 when compared to the female population (Table 3.3). The data on the marital status of the family members indicated the proportion of the widows was higher than the widower among the tribal communities (Table 3.6). The lowest Total Dependency Ratio (TDR), Child Dependency Ratio (CDR), and the highest Adult Dependency Ratio (ADR) of the Malayarayar community indicated their standard of living and financial stability (Table 3.4). It is noted that the life expectancy of the deprived Eravaller community was similar to the progressive tribal communities (Table 3.5).

3.3.1 Gender Composition and family size

Table 3.1 explains the gender composition and average family size of tribal households based on the community and hamlet wise data.

Table 3.1: Gender composition and distribution of the sample population based on community and hamlets

Districts	Name of Hamlets	Gender Composition of the sample population			No. of families		Avg. family size
		Male	Female	Total	Total	Surveyed	
W A Y A N A D	Edathana	56 (3.4)	48 (2.9)	104 (6.3)	97	20	5.2
	Kavilppadam	33 (2.0)	33 (2.0)	66 (4.0)	65	13	5.1
	Thalappuzha	37 (2.2)	37 (2.2)	74 (4.5)	80	16	4.6
	Godavari	23 (1.4)	32 (1.9)	55 (3.3)	68	13	4.2
	Kurichyar	149 (9)	150 (9)	299 (18)	310	62	4.82
	Mathothpoyil	24 (1.4)	26 (1.6)	50 (3.0)	49	10	5.0
	Parakkunipoyil	28 (1.7)	37 (2.2)	65 (3.9)	57	12	5.4
	Pathiriyambam	33 (2.0)	34 (2.0)	67 (4.0)	60	12	5.6
	Naduvil veedu	26 (1.6)	21 (1.3)	47 (2.8)	38	8	5.9
	Puthoorkunnu	22 (1.3)	18 (1.1)	40 (2.4)	42	8	5.0
	Mele Kappukunnu	37 (2.2)	21 (1.3)	58 (3.5)	44	9	6.4
	Nedumbalakkunn	25 (1.5)	25 (1.5)	50 (3.0)	45	9	6.3
	Paniyar	19(11.7)	182 (11)	377 (22.7)	335	68	5.54
P A L A K K A D	Chappakkad	20 (1.2)	20 (1.2)	40 (2.4)	46	9	4.4
	Vellaram Kadav	16 (1.0)	16 (1.0)	32 (1.9)	24	6	5.3
	Ambedkar Colony	34 (2.0)	41 (2.5)	75 (4.5)	77	15	5.0
	Naripparachella	13 (0.8)	17 (1)	30 (1.8)	47	9	3.3
	Mamarath	10 (0.6)	14 (0.8)	24 (1.4)	33	6	4.0
	Eravaller	93 (5.6)	108 (6.5)	201 (12.1)	227	45	4.4
	Paloor	41 (2.5)	34 (2.0)	75 (4.5)	90	18	4.2
	Bommiyampadi	17 (1.0)	19 (1.1)	36 (2.2)	46	9	4.0
	Kolappadika	52 (3.1)	55 (3.3)	107 (6.4)	128	26	4.1
	Padavayal	33 (2.0)	43 (2.6)	76 (4.6)	88	17	4.5
	Cheerakkadav	42 (2.5)	46 (2.8)	88 (5.3)	118	24	3.7
	Irular	185 (11.1)	197 (11.9)	382 (23)	470	94	4.06
I D U K K I	Thadiyanal	31 (1.9)	31 (1.9)	62 (3.7)	53	13	4.8
	Methotti	42 (2.5)	43 (2.6)	85 (5.1)	87	21	4.0
	Urali	73 (4.4)	74 (4.5)	147 (8.8)	140	34	4.32
	Poomala	81 (4.8)	69 (4.2)	150 (9.0)	165	41	3.7
	Naliyani	51 (3.1)	55 (3.3)	106 (6.4)	114	28	3.8
	Malayarayar	132 (7.9)	124 (7.5)	256 (15.4)	279	69	3.71
	Grand Total	827 (49.8)	835 (50.2)	1662 (100)	1761	372	4.5

Source: Sample Survey Data

There was no remarkable difference in the population proportion between the male (49.8 per cent) and the female (50.2 per cent) members in the surveyed families. However, in some hamlets, the population proportion of the male was higher, especially in Edathana, Melekappukunnu, Paloor, and Poomala. Similarly, the population proportion of the female was higher in Godavari, Parakkunipoyil, Ambedkar colony, and Padavayal hamlets. Moreover, the lowest female ratio was reported among the Malayarayar and Paniyar families.

According to hamlet wise data, the smallest and largest family size was reported in hamlets of the deprived tribal communities such as Naripparachella (3.3) colony of Eravaller and Melekappukunnu (6.3) colony of Paniyar communities. In Wayanad District, except Godavari (4.2), the average family size of the other hamlets was above the average family size of the total tribal hamlets (4.5). But, in Palakkad district, the majority of tribal hamlets showed the family size below the average family size of total hamlets. In Idukki, except Thadiyanal (4.8), all hamlets showed the smallest family size that below the average family size of total hamlets.

But, according to the community wise data, deprived categories of the Paniyar community indicated the largest family size (5.54), while progressive categories of the Malayarayar community showed the smallest family size (3.68). The smallest family size of the Malayarayar community represented the "*reflection of socio-economic development*" of family members. They have attained employment and educational status, similar to mainstream society. It observed that as per the Census 2011, the average

family size of the tribal communities in Kerala comprised 4.3 people per house.

Table 3.2 Number of members in the tribal families

Communities	Frequency of family members						Total
	1 or 2	3-4	5-6	7-8	9-10	Above 10	
Malayarayar	15 (4.0)	35 (9.4)	18 (4.8)	1 (0.3)	0 (0)	0 (0)	69 (18.5)
Urali	2 (0.5)	20 (5.4)	10 (2.7)	2 (0.5)	0 (0)	0 (0)	34 (9.1)
Kurichyar	5 (1.3)	22 (5.9)	27 (7.3)	6 (1.6)	1(0.3)	1 (0.3)	62 (16.7)
Paniyar	2 (0.5)	23 (6.2)	27 (7.3)	9 (2.4)	4(1.1)	3 (0.8)	68 (18.3)
Eravaller	7 (1.9)	21 (5.6)	11 (3)	4 (1.1)	1(0.3)	1 (0.3)	45 (12.1)
Irular	12 (3.2)	44 (11.8)	36 (9.7)	2 (0.5)	0 (0)	0 (0)	94 (25.3)
Total	43(11.6)	165(44.4)	129(34.7)	24(6.5)	6(1.6)	5 (1.3)	372(100)

Source: Sample Survey Data

Table 3.2 elucidates the number of members of tribal families. Most of the tribal households had 3 - 6 members and lived in nuclear families (see Appendix Table 1). However, some Kurichyar, Paniyar, and Eravaller households lived in the joint family system who had more than nine members in each house. At the same time, some tribal families had only one or two members, especially in Malayarayar and Irular communities.

In Idukki, the family size of Malayarayar families was comparatively small when compared to the family size of the Urali community. It was the result of the migration of the younger generation in Malayarayar

households to the township because of their traditional attainments in education, landholding capacity, employment status, and better livelihood options (STDD, 2013). A 65-year-old man from the Malayarayar community exchanged his views *“I have been staying with my family. We have two sons. The elder one is working in the army, and the younger son is in a foreign country. Both are married. Our daughters-in-law are staying in their house. Sometimes they visited. Here, you can see several houses only with elderly people. After getting a better job and married, many of their children shifted to town areas with their families. They would like to live in town because of more infrastructure and schooling facilities. It is extremely painful for us to live alone without our children. I am a cancer patient. No one is here to talk and sharing my pain other than my wife.”*

In Palakkad, the majority of Eravaller and Irular households indicated standard family size. However, a few Eravaller households lived in joint families due to landlessness and homelessness. In Wayanad, the average family size of the Paniyar community was higher than the Kurichyar because of the joint family system. It observed that three/four Paniyar families that up to 15 members lived in 2BHK or 3BHK houses (see Appendix Table 11). It was the outcomes of the landlessness and higher rate of deprivation among Paniyar families. Likewise, as part of the traditional culture and ethos, few Kurichyar households residing in the joint family system, even though they possessed a sizable amount of land. Moreover, the privileged tribal groups like Kurichyar, the joint family system considered as the *‘reflection of tradition’* when the

underprivileged groups like Paniyar, the joint family system considered as the ‘*reflection of deprivation*’.

3.3.2 Life Expectancy and Marital status of tribal members

The life expectancy of a society/community gives information regarding the average life length of its members. Predominantly, the longevity of the members in society reveals the outcomes of the standard of living and well-being facilities in the localities. The marital status is a demographic indicator which legally classifies as single, married, separated, etc. Before the intensive intervention of government, child marriage was usual among tribal communities. Presently, the situation has changed because of the implementation of the statutory law of the country instead of the customary law of tribal communities. Thus, this section deals with the gender composition of tribal households, dependency ratio, and marital status. Moreover, it will help to analyse the inter-community disparities in the barriers of capability formation of tribal communities.

3.3.2.1 Gender composition and the age group of family members

The population proportion of the male and the female in tribal households varied at different age groups. The number of elderly people was distinctly modest in tribal families, particularly among Paniyar, Irular, and Urali communities.

Table 3.3 Gender composition of the family members based on age group

Communities	G	Frequency of Age group								Total
		0 - 6	7-15	16 -25	26 -35	36 - 45	46 - 55	56 - 65	65<	
Malayarayar	M	10 (6.3)	12 (4.9)	25 (7.2)	23 (8.7)	17 (6.9)	23 (11.9)	11 (10.6)	11 (11)	132 (7.9)
	F	7 (4.4)	5 (2)	18 (5.2)	16 (6)	23 (9.3)	26 (13.4)	14 (13.5)	15 (15)	124 (7.5)
Urali	M	7 (4.4)	14 (5.8)	16 (4.6)	11 (4.2)	7 (2.8)	12 (6.2)	5 (4.8)	1 (1)	73 (4.4)
	F	4 (2.5)	11 (4.5)	14 (4)	13 (4.9)	14 (5.7)	9 (4.6)	8 (7.7)	1 (1)	74 (4.5)
Kurichyar	M	13 (8.1)	12 (4.9)	28 (8)	36 (13.6)	18 (7.3)	20 (10.3)	10 (9.6)	12 (12)	149 (9)
	F	14 (8.6)	18 (7.4)	33 (9.5)	23 (8.7)	25 (10.1)	15 (7.7)	8 (7.7)	14 (14)	150 (9)
Paniyar	M	24 (15)	42 (17.3)	52 (14.9)	20 (7.6)	23 (9.3)	17 (8.7)	8 (7.7)	9 (9)	195 (11.7)
	F	20 (12.5)	31 (12.8)	39 (11.2)	27 (10.2)	28 (11.3)	14 (7.2)	10 (9.6)	13 (13)	182 (10.9)
Eravaller	M	7(4.4)	14 (5.8)	16 (4.6)	14 (5.3)	13 (5.3)	14 (7.2)	11 (10.6)	4 (4)	93 (5.6)
	F	9 (5.6)	20 (8.2)	26 (7.5)	11 (4.2)	15 (6)	13 (6.7)	7 (6.7)	7 (7)	108 (6.5)
Irular	M	21(13.1)	38 (15.6)	38 (10.9)	34 (12.8)	29 (11.7)	12 (6.2)	8 (7.7)	5 (5)	185 (11)
	F	24 (15)	26 (10.7)	44 (12.6)	37 (14)	35 (14.2)	19 (9.8)	4 (3.8)	8 (8)	197 (12)
Total	M	82 (51.3)	132 (54.3)	175 (50.1)	138 (52.1)	107 (43.3)	98 (50.5)	53 (51)	42 (42)	827 (49.8)
	F	78 (48.8)	111 (45.7)	174 (49.9)	127 (47.9)	140 (56.7)	96 (49.5)	51 (49)	58 (58)	835 (50.3)
Grand Total		160 (9.6)	243 (14.6)	349 (21)	265 (15.9)	247 (14.9)	194 (11.7)	104 (6.3)	100 (6)	1662 (100)

Source: Sample Survey Data

$$\chi^2 = 103.996; p = .000, p < 0.05$$

Table 3.3 reveals the age groups and the gender status of members in the tribal families. The proportion of the female was low at the age below 35 when compared to the male ratio in tribal families. Moreover, out of 403 children, the number of girls was 189 (46.89 per cent) at the age below 15. It also noticed the ratio of the aged female was higher than the proportion of the aged-male among tribal households. It is worth mentioning that the proportion of the male (43.3 per cent) was lower at the age group between 36-45 when compared to the female ratio (56.7 per cent). The Chi-square test revealed that there was a significant relationship between the gender and age of the family members at 5 per cent significance level when $(\chi^2) = 103.996$ with 35 df at $P = 0.000$.

In Kerala, the Child Sex Ratio of the Scheduled Tribes reduced within a decade from 974 (2001) to 949 (2011), while the Child Sex Ratio of the aggregate population in the state increased from 960 (2001) to 964 (2011). It will reduce the proportion of productive age group in the tribal families. Moreover, in the case of the general population in Kerala, the proportion of children at the age group 0-14 declined within 50 years from 43 per cent (1961) to 23 per cent (2011). Also, the proportion of children at the age group 0-14 of the general population in Kerala has declined within 50 years, from 43 per cent (1961) to 23 per cent (2011). Likewise, the population proportion of aged people increased within 50 years, from 6 per cent (1961) to 13 per cent (2011).

3.3.2.1 Dependency ratio of the selected Tribal Communities

The Total Dependency Ratio (TDR) is a sum of the Aged Dependency Ratio (ADR) and the Child Dependency Ratio (CDR). The higher ADR of a community indicates the better life expectancy of its members, and at the same time, the financial dependency of family members. Also, the lower CDR of a community points out the fertility control and educational attainment of the family members. However, the higher Total Dependency Ratio (TDR) of a society indicates the poverty and financial insecurities of its households. Also, it will impose more financial burdens on the earning members in families (Socio-Economic status of Scheduled Tribes in Kerala, 2013).

Table 3.4 Dependency ratio of the selected Tribal Communities

Communities	Total members	No. of productivity group	No. of children 0-14	No. of adults age 65 & above	CDR	ADR	TDR
Kurichyar	299	221	52	26	23.53	11.76	35.29
Paniyar	377	249	106	22	42.57	8.84	51.41
Eravaller	201	145	45	11	31.03	7.59	38.62
Irular	382	271	98	13	36.16	4.80	40.96
Urali	147	113	32	2	28.32	1.77	30.09
Malayarayar	256	199	31	26	15.58	13.07	28.64
Total	1662	1198	364	100	30.38	8.35	38.73

Source: Sample Survey Data

Table 3.4 explains the dependency ratio of the households of various tribal communities. It illustrated that nearly 30 per cent of the family members were non-productive. In detail, the progressive tribal groups like the Malayarayar community showed the lowest Child Dependency Ratio (CDR), while the deprived tribal groups like Paniyar indicated the highest CDR. It revealed that the number of children in the age group between 0 - 14 was higher in Paniyar families. Moreover, it adversely affected their economic freedom and the earnings of the productive group in Paniyar families. In other sense, the lowest CDR of the tribal communities indicated the child population in the age group between 0-14 was low in families. These were the consequences of several reasons like the migration of younger generations to the township, educational attainments of family members, lack of pregnancy care, taking contraceptive measures, the early death of children, etc. The reasons varied according to the nature and categories of tribal communities. According to the Census data (2001 & 2011), except for the deprived groups like Paniyar and Eravaller, among the progressive and moderate groups like Malayarayar, Kurichyar, Urali, and Irular communities revealed a decline of children at the age group 0-14 years.

The tribal communities in a similar district reported a paradoxical result in the case of Aged Dependency Ratio (ADR), i.e., the Malayarayar elucidated the highest ADR (13.07) than the Urali community (1.77). It means that among six tribal communities, the moderate tribal groups like Urali only possessed low life expectancy than deprived tribal groups like

the Paniyar and Eravaller. Moreover, in the report on the Socio-Economic Status of Scheduled Tribes in Kerala (2013), the Urali (7.98) and Paniyar (7.95) communities indicated the similar status of the Aged Dependency Ratio.

In general, the lowest value of the Aged Dependency Ratio or small proportion of old age people in society was the consequences of the lack of proper health and infrastructure facilities, insufficient food habits, overconsumption of substances, etc. But, in the case of tribal communities, many other reasons affected the longevity of members in tribal families. They were forcefully evicted from the forests as well as lost their rights on forest products due to the anti-tribal forest policies of the government. Subsequently, they displaced from the ancestor's land and depended on the government for food and other welfare activities. Consequently, changes in food habits led them to undernutrition and food insecurity (Saxena, 2014). In the ancient period, the aboriginals in Kerala were used Raggi, Maize, etc. as part of their traditional food habit for health protection (Velappan, 1994). Gradually, it changed, and the majority of tribal households depends on the public distribution system for intakes than self-cultivation, even though they possess sufficient amounts of land. Thus, it led to reducing the choices of food among tribal families. Consequently, the tribal people became unhealthier, i.e., increased the number of anaemic people, suffering from malnutrition, increasing the number of infant mortality death etc. Moreover, the insufficient food habits of tribal households live in the steep-hilly regions was adversely impacted the longevity of its members. Also, the mismatch between the topology of land and the sufficiency of intakes led to

reducing the rate of the Aged Dependency Ratio among tribal communities.

In the Dependency Ratio analysis, the Paniyar community revealed the highest TDR (51.41), while the Malayarayar community indicated the lowest TDR (28.64). It reveals the poverty and financial insecurities of Paniyar families. Moreover, the majority of the productive age group in the Paniyar community was wage-labourers, and they mainly engaged in agricultural labouring and MGNREGA. However, they did not gain sufficient income from these jobs for meeting their household expenditure (See Chapter 4, Table No 4.4). Consequently, the deprivation rate among Paniyar families increased. In other sense, the lowest TDR of the Malayarayar community reveals the progressiveness of its members, especially the economic stability and the standard of living of the family members. The majority of Malayarayar families possessed sufficient amounts of agricultural lands, more livelihood options, higher educational qualifications, and better job status. These were given more economic freedom to the earning members in Malayarayar families.

Table 3.5 Marital status of household members

Marital status	Communities						Total
	Malayarayar	Urali	Kurich yar	Paniyar	Eravaller	Irular	
Single	101 (6.1)	69 (4.2)	127 (7.6)	185 (11.1)	83 (5)	170 (10.2)	735 (44.2)
Married	130 (7.8)	68 (4.1)	158 (9.5)	161 (9.7)	106 (6.4)	175 (10.5)	798 (48)
Separated	1 (0.1)	1 (0.1)	3 (0.2)	8 (0.5)	0(0)	0(0)	13 (0.8)
Divorced	1 (0.1)	0(0)	0(0)	1 (0.1)	0(0)	11 (0.1)	13 (0.8)
Widow	19 (1.1)	8 (0.5)	10 (0.6)	21 (1.3)	10 (0.6)	31 (1.9)	99 (6)
S. mother	0(0)	1 (0.1)	1 (0.1)	0(0)	0(0)	1 (0.1)	3 (0.2)
Widower	4 (0.2)	0(0)	0(0)	1 (0.1)	2 (0.1)	4 (0.2)	11 (0.7)
Total	256 (15.4)	147 (8.8)	299 (18)	377 (22.7)	201 (12.1)	382 (23)	1662 (100)

Source: Sample Survey Data

Table 3.5 describes the marital status of the family members of tribal communities. The majority of tribal members were single or married. Moreover, there was a significant disparity between the proportion of widows and widower in tribal families. The proportion of widows was comparatively significant at the age group 26-55 among tribal families, especially in Paniyar and Eravaller communities (See Appendix Table 3). When compared to other communities, there were no widowers in Kurichyar and Urali families. Moreover, the majority of divorced members were in the Irular community in Attappady. A lady at Puthur hamlet in Attappady Block commented, *"I have been living with my son. When he was at age 2, I divorced his father due to alcoholism and domestic violence. I have been going to work and sending my child to school. The financial crisis is too high due to the lack of labouring. But I am so happy. I can sleep at night without fear, even though I did not have food."*

According to the Census 2011, In Kerala, there were significant disparities between the proportion of the widows (5.75 per cent) and widower (1 per cent) among tribal communities, as we mentioned earlier in the study. Many reasons increased the number of widows and divorced couples among tribal families, especially domestic violence and the usage of substances like tobacco, alcohol. Moreover, various studies revealed that from childhood onwards, tribal members were familiar with alcoholism and tobacco consumption. Consequently, it may cause the death of tribal men at a younger age, especially among Irular and Paniyar communities. As an intermediary between tribal households and the Tribal Department, a Promoter in Panamaram Grama Panchayath shared,

“The over-consumption of substances among tribal communities is not uncommon, especially among Paniyar and Adiyar communities. Habitually it starts at home. In knowingly or unknowingly, parents usually promote children to use alcohol/tobacco/both. When they reach the age of 25, most of them will be addicted to alcohol and tobacco. Subsequently, they die at a younger age. Moreover, the public supplies tobacco and alcohol among tribes for avoiding providing wages. So, the public also responsible for the death of tribal people in Wayanad.” It revealed that the tribal population had been facing different forms of exploitation, along with their poverty and vulnerability.

In precis, the demographic statistics of the country widely use in the formation of the policy framework and implementation of need-based interventions. The assessment of the prosperity of society primarily depends on the demographic features of its members. Hence, this chapter predominantly focused on the population statistics of tribal families such as gender composition, family size, dependency ratio, and marital status. The study reveals the proportion of the female was lower than the proportion of the male at the age below 15. However, there was no significant difference between the proportion of the male and the female in tribal families. Also, the marital status of the family members reveals the number of widows was higher in the age group 36-45. It observed there was a significant difference between the tribal groups in the various categories in the Total Dependency Ratio of tribal families. The highest dependency ratio revealed the financial insecurity and intensity of poverty among tribal families. Thus, the assessment of the demographic features of tribal communities proves each community is different from one to

another in the sex ratio, family size, marital status, longevity, etc. The fluctuations in the demographic features adversely affected the socio-economic and cultural status of the tribal communities. It observed that the current tribal development programmes and policies did not give much priority to the demographic features of each tribal community, other than the PVTGs. Hence, the study emphasises that the concerned authorities should assign more priority to the demographic statistics of each tribal community, especially to the deprived groups, at the time of formulation of development policies and programmes.

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IMPLICATIONS OF THE TSP ON THE INFRASTRUCTURE FACILITIES AND BASIC HUMAN NEEDS

- 4.1 *Basic Need Facilities of Tribal Households*
- 4.2 *Infrastructure Facilities at Tribal Hamlets*

Globally, the impact of infrastructure facilities on the development of a country as well as society is a widespread debatable issue in the academic, especially, in economic research. In a developing country like India, the socio-economic development of society mainly depends on the availability of the basic infrastructure facilities that functioning under the welfare programmes of the government. The earlier studies showed that the infrastructure facilities were exceptionally poor in the country, especially, in remote places of rural areas. It means that the benefits of welfare programmes did not percolate to the lowest strata of the people in the country. Thus, it adversely affected the socio-economic viability of alienated communities living in remote or isolated areas. It disclosed that there was a strong relationship between the availability of infrastructure facilities and the welfare of the family members, particularly in the formation of human capabilities.

In Kerala, the Union and State ministries have been implementing several measures for the enhancement of the welfare of tribal communities, by providing the basic-need facilities like house, land, electricity, drinking

water, toilet, etc., under tribal development programmes. However, previous studies and statistical data pointed out that most of the tribal hamlets are located in geographically isolated areas with low infrastructure facilities, particularly nearby the forest or slope of steep hills. It led to difficulties in travelling, inaccessibility of services from government departments and isolated from the public. According to the Census 2011, only 38.38 per cent of the tribal households occupied in better houses when 66.32 per cent of the general households lived in better housing condition in the state. However, they had latrine (71.37 per cent) and electricity (62.77 per cent) facilities in houses. As per the Report on the Socio-economic status of Scheduled Tribes of Kerala 2013, 51.31 per cent of tribal families were the BPL category, and 4.78 per cent were landless, 13.88 per cent lived in water logging or marshy areas without the road accessibility. Moreover, out of 4672 tribal settlements, the members in 1451 hamlets needed to travel more than 5 kilometres for nearest health care institutions.

Several studies have pointed out that the wellbeing of an individual or a society is the reflection of effective and systematic use of the capabilities of individuals. The availability of sufficient physical assets that satisfies the fundamental needs and infrastructure facilities of households will promote the capabilities of individuals. In the case of deprived society like tribal communities, to a certain extent, their backwardness primarily depends on the inadequacy in the availability of infrastructure facilities. Since 1974, the Union and State ministries have been assigning more priority to the infrastructure development of tribal societies by the implementation of programmes under the Tribal Sub Plan, based on the contextual framework of the Basic Need Approach.

Hence, in this chapter, we tried to evaluate, the current infrastructure facilities available in tribal houses and hamlets; the impact of infrastructure facilities in the socio-economic development of the tribal families; inter-community differences in the availability of infrastructure facilities; and the barriers to getting welfare benefits from the government.

The data showed the majority of tribal families were the BPL categories (Table 4.1). But, except for deprived tribal categories, the majority of the tribal families possessed a sizable amount of land (Table 4.2), and it was traditionally handed over from their ancestors (Table 4.3). However, the land was highly unequally distributed between and within the tribal communities (Table 4.4). Most of the households, except deprived families, lived in semi-pucca or pucca houses (Table 4.5) and constructed under housing schemes of various government departments (Table 4.7). But there was no relationship between the number of family members and the availability of rooms/house size, especially in the case of deprived communities (Table 4.6). The majority of tribal houses were electrified (Table 4.9), and they had the toilet facilities (Table 4.8). The nature of the sources of drinking water varied depends on the location of the tribal hamlets (Table 4.10). Most of the tribal families had travel facilities (Table 4.11), but there were significant disparities between them in the accessibility of vehicle services. Tables 4.12, 4.13, 4.14 and 4.15, explained the distance between the house and the accessibility of various essential services available in the nearest places of tribal areas. This chapter subdivided into the family status, land ownership of tribal households, status of tribal houses, government assistance for housing construction, infrastructure facilities in houses and hamlets, location of hamlets, and accessibility of public service facilities.

4.1 Basic Need Facilities of Tribal Communities

4.1.1 Financial status and the land ownership of tribal households

Generally, the standard of living of a family primarily depends on the income and asset holding capacities of its members, particularly rely on the ownership on sizable amounts of land, better employment status, and higher educational qualifications. Among six tribal communities, the majority of the productive age groups depended on the agriculture sector, like labours or cultivators. It revealed that the ownership of a significant amount of land has a pivotal role in the formation of the asset or economic capabilities of tribal families.

Table 4.1: Financial status of Tribal Households

Financial status	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
APL	27 (7.3)	2(0.5)	4 (1.1)	1 (0.3)	3 (0.8)	5 (1.3)	42 (11.3)
BPL	15 (4)	21(5.6)	1 (0.3)	2 (0.5)	6 (1.6)	19 (5.1)	64 (17.2)
AAAY	27 (7.3)	11 (3)	54(14.5)	54(14.5)	33 (8.9)	63(16.9)	242(65.1)
NA	0 (0)	0 (0)	3 (0.8)	11 (3)	3 (0.8)	7 (1.9)	24 (6.5)
Total	69 (18.5)	34(9.1)	62(16.7)	68(18.3)	45(12.1)	94(25.3)	372 (100)

Source: Sample Survey Data

Table 4.1 describes the economic status of tribal households in the Ration cards. The majority of tribal families comprise the BPL category. Only some families represent APL categories, and the majority of them were Malayarayar families. In detail, the deprived groups like Paniyar and Eravaller communities possessed merely less than 5 cents of land (See

Appendix Table 3). But, the progressive groups like Malayarayar and Kurichyar communities possessed a sizable amount of agriculture lands. Except for some families, most of them possessed 50 cents - 3 acres of land. We noticed a discrepancy between the progressive and deprived tribal groups regarding the family status in official records. Even though the progressive tribal families possessed more than one acre of land the majority of them were under the BPL category (due to lack of sufficient income earnings from their agricultural lands according to government norms), like deprived tribal groups such as Paniyar and Eravaller. Consequently, it adversely impacted the equality in the socio-economic status of tribal families and the selection of beneficiaries for government assistance. We observed in the field survey that the majority of progressive tribal families received more benefits from the government than the families in underprivileged tribal groups (See Tables 5.25 and 6.10).

Table 4.2 Types of owned lands

Communities	Types of owned lands					Total
	Landless	Homestead land	Community	Agri. and Homestead	Agri. and Comm.	
Malayarayar	0(0)	3 (0.8)	0 (0)	66 (17.7)	0 (0)	69 (18.5)
Urali	0(0)	2 (0.54)	0 (0)	32 (8.6)	0 (0)	34 (9.1)
Kurichyar	0 (0)	4 (1.1)	0 (0)	58 (15.6)	0 (0)	62 (16.7)
Paniyar	1 (0.27)	31 (8.3)	29 (7.8)	4 (1.1)	3 (0.8)	68 (18.3)
Eravaller	1 (0.27)	42 (11.3)	0 (0)	2 (0.54)	0 (0)	45 (12.1)
Irular	3 (0.8)	5 (1.3)	14 (3.8)	20 (5.4)	52 (14)	94 (25.3)
Total	5 (1.3)	87 (23.4)	43 (11.6)	182 (48.9)	55 (14.8)	372 (100)

Source: Sample Survey Data

Table 4.2 explains the land ownership of tribal households. The majority of families in progressive and moderate tribal categories possessed significant amounts of agriculture and housing/community lands. But, the deprived tribal groups like Paniyar and Eravaller owned only community/housing lands. More than half of progressive and moderate families had above 50 cents of land when the deprived families owned only two or three cents (See Appendix Table 3). Moreover, the ratio of the absolute landless families was low among surveyed tribal households.

The Eravaller community were agricultural labours of local landlords during the British period (Thurston, 1909). However, we have observed that many families lost their agriculture land due to land encroachment of migrants from Tamil Nadu and natural calamities. An old man from Ambedkar colony shared, "*In my childhood, I was engaged in farming with my parents. They were cultivators. A lot of migrants from Tamil Nadu had worked as agriculture labours. After a period, the migrants became strong and started encroachment of lands. Gradually, due to exploitation of migrants, my parents lost agriculture land, and we became agricultural labours of migrants.*" The historical background of Paniyar differed from the Eravaller community. Traditionally, they were bonded labours of local landlords, engaged with rice cultivation, and settled in the temporary huts along the periphery of the paddy field, with minimum facilities. After the implementation of the Bonded Labour Abolition Act in 1975, they got freedom from slavery, and subsequently, most of them lost their homeland. Thus, the government has taken up some private forest under the Act of 1971, aimed at the formation of

Estates for providing livelihood assistance (Menon, 2010). Apart, the government took initiative for the rehabilitation of deprived groups, through the construction of settlement colonies, by providing, at least three cents of land. The Eravaller and Paniyar communities settled in two different districts in Palakkad and Wayanad. However, their issues were similar such as no land for agriculture and lack of choices in livelihood activities, etc.

The majority of tribal families received lands from their ancestors. Therefore, they did not get any financial assistance from the government. Except for Malayarayar and Urali communities, some families got assistance from various government institutions for purchasing lands, such as the Tribal Development Department, LSGIs, Forest Department, and Revenue Department (See Appendix Table 5). They took up the property from landowners and distributed to beneficiaries, instead of providing direct financial assistance. In some cases, the government directly distributed their forest or revenue lands to the landless tribes. In Wayanad, the lands were distributed in the Godavari (1995-2005) and Puthurkunnu (2005-15) colonies, for Kurichyar and Paniyar communities, respectively (See Appendix Tables 4 and 5). In Palakkad, the Eravaller households lived in settled colonies, established by the Government of Kerala, after a landslide in the forest, in the 1970s. Likewise, In the case of Irular communities, some families received 4 cents -1acre of lands from the Tribal Development Department and LSGIs during the period 2005-2015.

The land was alienated from the forebears of some tribal families in all tribal communities, especially among Irular families, because of invasion of land, natural calamities, etc. (See Appendix Tables 6 and 7). In Attappady, several Irular families lost their agriculture lands due to the incursion of migrants to the tribal belts from Travancore-Cochin and some part of Tamil Nadu. Subsequently, the agricultural lands near the tribal hamlets lost due to the prolonged land encroachment of non-tribes. So, their cultivated lands were very far from the settlements, and consequently, the conditions of the land were deplorable (KFRI, 1991).

According to the Kerala Development Report 2008, 4,219.85 acres of lands were alienated from tribal communities in the state during the period 1962 - 82. Moreover, in all over Kerala, the encroached tribal lands under the dispute as on 30.6.1996 was 17,971.12 acres. In 1961, under Article 339 of the Constitution of India, the Central Ministry was appointed The Scheduled Caste and Scheduled Tribe Commission under the Chairmanship of U.N. Dhebar. The Commission recommended that the land alienated from the tribal households after 20th January 1950 should be restored and given back to the original landowners. But, the Government of Kerala overturned this recommendation that other states implemented. In 1975, because of the wake of Naxalism in the country, especially in the tribal belts, the Central Ministry decided under the leadership of Indira Gandhi to restore the alienated lands of tribal communities in the country. Based on that, the Government of Kerala enacted the Kerala Scheduled Tribes (Restriction of Transfer of Lands and Restoration of Alienated Lands) Act in 1975. However, the State

Ministries ignored this Act due to the pressure from various stakeholders. In 1993, the Kerala High Court ordered the State government should implement the Kerala Scheduled Tribes (Restriction of Transfer of Lands and Restoration of Alienated Lands) Act 1975. Nothing but, the government refused to implement the order of the court, due to pressure from the vociferous lobby of non-tribal immigrant settlers. Finally, the Government of Kerala introduced a new bill on 25th September 1996 regarding the Kerala Scheduled Tribes (Restriction of Transfer of Lands and Restoration of Alienated Lands) Act. In 1999, the President approved that Bill, which legitimised all illegal transactions of tribal lands between the period 1.1.1960 and 24.1.1986 (Kunhaman, 1989; SEEDS, 2007 and Suchithra, 2013). This decision wrecked the substratum of the tribal economy and the lives of tribes, especially the most vulnerable tribal groups.

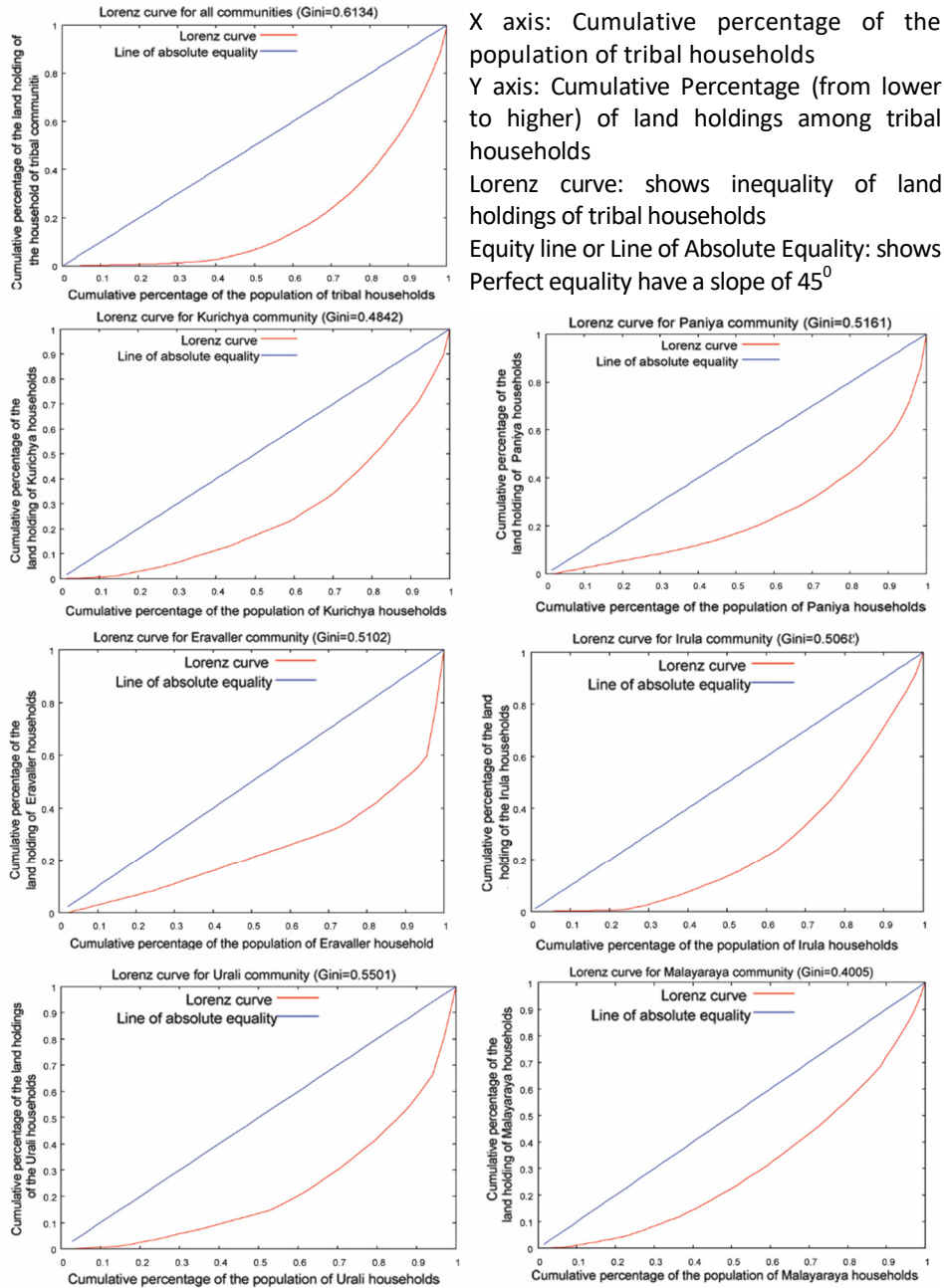
Table 4.3 Nature of documents on the ownership of lands

Nature of property deed	Communities						Total
	Malayarayar	Urali	Kurichyar	PaniYar	Eravaller	Irular	
No deed	0 (0)	0 (0)	3 (0.8)	4 (1.1)	4 (1.1)	7 (1.9)	18 (4.8)
Document of possession	69 (18.5)	34 (9.1)	21(5.6)	0 (0)	1(0.3)	36 (9.7)	161(43.3)
Title deed & Document of possession	0 (0)	0 (0)	38(10.2)	64(17.2)	40(10.8)	51(13.7)	193(51.9)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 4.3 describes the details about the ownership documents of tribal lands. It observed the Malayarayar and Urali families had possession certificates only, instead of Title-deeds, even though the lands traditionally handed over from their predecessors. The Forest Department objected to distribute the title-deeds to these families because of considering the tribal lands as forest lands. Consequently, the government hesitated to give the title deeds to their lands. A respondent from the Malayarayar community in Poomala Hamlet remarked, *“I have nearly five acres of land got from my ancestors. But here, the land value is low. Look, everyone cultivating in their agriculture lands. But the Forest Department argues that these are forest lands. So, we did not get the title deed from the government due to resistance from the Forest Department. They only provided the possession certificate and forest right document. Apart from agriculture, this land has no other purposes. Moreover, because of the restriction in the land transaction to non-tribes, we cannot sale the land. Because of the lack of the title deed, banks will not provide loans. I have a daughter and a son. We want to conduct the wedding of our daughter and send our son to higher studies. But we do not have enough money. Although we have a lot of land in our hands, it fails to meet the higher economic requirements. Also, if it is not suitable for dealing with our financial crisis, what is the use of holding a huge amount of land?”*. Like Malayarayar and Urali communities, some Kurichyar and Irular families addressed similar issues related to the ownership of land because of the absence of title deeds. It is a crucial issue among the tribal communities that lose on various usages of good amounts of land because of the lack of ownership certificates.

Land represents a form of economic/asset capital. The Report on the Socio-economic status of Scheduled Tribes of Kerala (2013) stated that only 52.81 per cent of the total tribal households (1,07,965) in the State had the proper title deed (Pattaya) on their lands. The field inference revealed a few families did not have ownership documents of their lands. It kept by the non-tribes in the neighbourhoods, and there was no evidence on that. In most of the cases, the local non-tribes misused their innocence. A lady from the Eravaller community in Muthalamada Gramapanchayat explored her experiences, *“A few years ago, my husband died, and I live with six children. We don't have a home. It is a neighbour's house, and they provide free accommodation facilities. Two years ago, I received financial assistance from the Panchayath for purchasing land. The Panchayath President purchased land for me from his relatives at 1.5 lakh rupees. But he did not give that document, and it kept by his assistant. Also, when purchasing land, he had offered a house under the Panchayath schemes. Till now, I haven't received that housing assistance. Due to fear, I am not able to ask him about this.”* The hamlet leader added more information regarding the purchase of land by the Panchayath President. He revealed, *“Under Panchayath scheme, the President purchased useless land for her housing construction. Like this, he has done many corruptions in the name of the schemes under Panchayath.”* He was exploiting that poor lady. Like this, he has done many corruptions in the name of the schemes under Panchayath." It revealed the lack of bargaining capacity of tribal people, especially deprived tribal groups, in the power politics due to the structural incapability of tribes.



X axis: Cumulative percentage of the population of tribal households
 Y axis: Cumulative Percentage (from lower to higher) of land holdings among tribal households
 Lorenz curve: shows inequality of land holdings of tribal households
 Equity line or Line of Absolute Equality: shows Perfect equality have a slope of 45°

Source: Sample Survey Data

Figure 4.1 Lorenz curve of the land distribution as a cumulative percentage of the population of tribal households on the cumulative percentage of the possession of land size of tribal households

The Lorenz curves explain the land in-equality among tribal communities in Figure 4.1. In community wise land distribution, the Malayarayar families showed relatively equitable landholding capacities when others indicated higher degrees of in-equality. Moreover, The Lorenz curve of the land distribution of all tribal families indicated higher degrees of inequality between them.

Table 4.4 The Gini coefficient of the land distribution tribal households: Ratio of the possession of land size and population of tribal households

Communities	No of HH	Percentage of HH	Value of Gini coefficient (G)	Inequality status
All communities	372	100	0.6134	Highly unequal land distribution
Kurichyar	62	16.7	0.4842	Highly unequal land distribution
Paniyar	68	18.3	0.5161	Highly unequal land distribution
Eravaller	45	12.1	0.5102	Highly unequal land distribution
Irular	94	25.3	0.5068	Highly unequal land distribution
Urali	34	9.1	0.5501	Highly unequal land distribution
Malayarayar	69	18.5	0.4005	Relatively equitable land distribution

Source: Sample Survey Data

Table 4.4 explains the Gini coefficient of the inequalities of land distribution among tribal families. The Gini coefficient value ($G = 0.6134$) of the landholding capacity of all tribal communities showed the highest in-equality between them. However, in community-wise, the Malayarayar

families indicated relatively lowest unequal land distribution when compared with other tribal families.

The Gini coefficient value ($G = 0.4842$) reveals the inequality of land distribution within the Kurichyar families. The majority of them possessed 50 cents to 10 acres of land (See Appendix Tables 3 and 4). Likewise, the Paniyar families revealed a significant degree of inequality ($G = 0.5161$) in the land distribution within the community. They maintained 0 to 2 acres of land in which only a few Paniyar families owned more than 25 cents of land. The Eravaller ($G = 0.5102$) and Irular ($G = 0.5068$) families also illustrated higher inequality in land distribution. The majority of Eravaller families owned only below 5 cents of land, except some families possessed up to 1 acre of land. But the majority of Irular families in a similar district possessed more than 50 cents of land.

The Malayarayar families ($G = 0.4005$) showed relatively equitable land distribution, and the majority of them had more than 50 cents of land. Nothing but, the Urali families ($G = 0.5501$) indicated higher inequalities in the distribution of lands. Only half of the Urali families owned more than 50 cents of land (See Appendix Tables 3 and 4). Since Royal Periods, these communities have not been facing landless issues in Idukki and Kottayam districts. Moreover, the ancestors of Malayarayar and Urali kept individual ownership on land. Consequently, they protected land from the alienation and the encroachment of migrants (Kunhaman, 1989). It was an outcome of the educational attainments of their ancestors who received schooling in the British Periods.

According to the report on the socio-economic status of Scheduled Tribes of Kerala 2013, the government provided 8,900 acres of land to the Scheduled Tribes, under various schemes up to 2008. They distributed forest land to 11,625 tribal families with the title deed. However, in 2008, 5,158 (4.78 per cent) tribal families were landless, especially in Wayanad (1979) and Palakkad (1568) districts. Moreover, 34.55 per cent of tribal families had only 1 to 9 cents of land. During 2013-2018, the Government of Kerala spent Rs. 72.29 crores, for purchasing 350.78 acres of land for 811 tribal families, under the scheme of the resettlement of landless tribes. In the corresponding period, they distributed 166.51 acres of land to 406 landless families in Wayanad, up to 1 acre to 5 acres (Economic Review, 2018). In some cases, the government distributed the land for resettlement in the neighbouring districts or geographically isolated areas or very far from the native place of tribal families. In most of the cases, because of the lack of infrastructure facilities and the attack from wild animals, the lands were unfit for livable and cultivation (Paniyasadass, 2010 and Sreerekha, 2012). Some Paniyar families shared the same experience in Wayanad district such as they received lands at Aralam farm in Kannur district.

In 1959, The First Communist Ministry approved the Kerala Agrarian Relation Bill (KARB), exempted private forests and plantations from the ceiling provisions of the government, the agriculture lands within the boundaries of plantations also exempted. This Act additionally allowed the landowners to evict the hutments from the boundaries of plantations or private forests. This Bill was against the tribal communities in Kerala. Moreover, the tenant status was acquired by the settled farmers

who had encroached tribal lands by the implementation of the Kerala Reforms (Amendment) Act of 1969. Subsequently, most of the Tribes or Dalits became landless because of the intermediaries such as the Karyasthan or Karyakkaran acquired by the lands from the landlord. The drawbacks of the Land Reforms Act 1969 were the plantation sector excluded from the ceiling provisions of the government, transferred garden-land and rice-land to the intermediate and small tenants, without considered the vast mass of socially disadvantaged landless workers. In 1960, the Dhebar Commission recommended restoring the tribal lands which had been alienated, since 26th January 1950. But, the governments in Kerala took a lackadaisical approach to the restoration of encroached tribal lands from the settlers (KDR, 2008; Rammohan, 2008).

Conventionally, the land is a symbol of the standard of living and social status. But, in the case of tribes, the land is linked with their autonomy, solidarity, and cohesion (Mathur, 1977). Their sources of income primarily depend on the agriculture sector, especially cultivation/agriculture labouring. Hence, the study reveals that land carries out a pivotal role in the attainment of the capabilities of tribal communities. The category-wise comparison showed that the land has a pivotal role in the progressiveness of tribal communities like Malayarayar and Kurichyar by the ways of getting long-term livelihood assistance as well as more choices for employment. It was instrumental in ensuring asset formation and socio-economic mobility of the progressive families, which reflected in the education and employment attainments of family members. In the case of deprived groups like Paniyar and Eravaller families, the primary reasons for poverty and vulnerability among them

were fewer livelihood options and agriculture landlessness. Consequently, it adversely impacted their long-term livelihood options and the financial stability of families. Naturally, it forced these communities to a low standard of living and poor social status. The Urali and Irular, moderate tribal groups, pointed out some facts about land ownership and its role in economic mobility. Even though the Urali and Eravaller families possessed a sufficient amount of land, it could not be steered to the socio-economic mobility of its community members. The study indicates it was the outcomes of geographical isolation and lack of productivity of lands. Most of the agricultural lands of both communities are located on the steep hill slope filled with rocks. Moreover, the agricultural land of Irular families was located very far from their community land. Consequently, it reduced the earnings from farming. Thus, the destruction or the alienation of lands directly affected the livelihood options and economic capability of tribal communities. Subsequently, they lost control over their lives, and it led to the marginalisation of tribal communities (KFRI, 1991).

4.1.2 Nature of tribal houses and government assistances

A home has deeply connected to the social and economic underpinnings of an individual. Moreover, it has a pivotal role in the formation of welfare and social security measures in society. According to the Census 2011, 16.5 per cent of tribal families lived in dilapidated houses. However, the situation is improved due to the implementation of various schemes for housing construction after 2011. In this section, we tried to analyse the role of housing facilities in the socio-economic development of tribal communities. It deals with the size and conditions

of houses, sources of assistance for housing construction, and the trend in the plan outlay and expenditure of TSP in the housing sector from 1985-2017.

Table 4.5 Nature of houses

Nature of house	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Dilapidated (D)	2 (0.5)	2(0.5)	19 (5.1)	21 (5.6)	9 (2.4)	5 (1.3)	58 (15.6)
Liveable (L)	3 (0.8)	4 (1.1)	14 (3.8)	5 (1.3)	11 (3)	10 (2.7)	47 (12.6)
Cutch (C)	13 (3.5)	1 (0.3)	1 (0.3)	0 (0)	4 (1.1)	2 (0.5)	21 (5.6)
Semi pucca (SP)	21 (5.6)	10 (2.7)	11 (3)	18 (4.8)	5 (1.3)	44 (11.8)	109 (29.3)
Pucca (P)	27 (7.3)	5(1.3)	13 (3.5)	6 (1.6)	1 (0.3)	1 (0.3)	53 (14.2)
Semi-finished (SF)	1 (0.3)	4(1.1)	0(0)	0(0)	4 (1.1)	5 (1.3)	14 (3.8)
D & SF	1 (0.3)	6 (1.6)	3 (0.8)	9 (2.4)	4 (1.1)	11 (3)	34 (9.1)
L & SF	1(0.3)	2 (0.5)	1(0.3)	9 (2.4)	7 (1.9)	16 (4.3)	36 (9.7)
Total	69 (18.5)	34(9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

$\chi^2 = 191.284$; $df=35$, $p=.000$, $p<0.05$

Table 4.5 explains the nature of houses of tribal families. Nearly 50 per cent of tribal families lived in Pucca or Semi-pucca houses, especially Malayarayar, Urali, and Irular families. Most of the Paniyar, Kurichyar and Eravaller communities resided in dilapidated/liveable/semi-finished houses. The Chi-Square test revealed that there was a highly significant

relationship between the nature of houses and categories of tribal communities when $(\chi^2) = 191.284$; $df = 35$; $p < .05$ at $P = 0.000$.

In the field survey, it observed many semi-finished houses in the tribal areas. We found that the factors such as the economic status of families, location of the land, lack of travelling facilities, financial assistance of housing schemes, approaches of officials, lack of infrastructure facilities, etc. negatively influenced the construction of houses. Subsequently, most of the families forcefully stopped the housing construction in the half-way. It underscores the relevance of introducing flexibility in the financial allotment for housing schemes based on the isolation of housing land. The senior officer of the Administration Wing of the Tribal Directorate commented: "*Housing construction is a state-level programme and it considers certain general criteria. The amount decided by the higher-level authorities and the policymakers. So, we are liable, for providing the budget amount to the beneficiaries, without considering the location of hamlets, all over the state.*" However, the study suggested that the apex authority should provide more freedom to the District Planning Officer/the District Tribal Development Officer to allow additional funds for the housing construction based on certain aspects, in the uncommon situations.

In the Focus Group Discussion, the Promoters mentioned some issues related to the incompleteness of housing construction. There is a tendency among the tribal people to spend housing assistance for other purposes like consuming food items, spend on medical expenses, etc. Moreover, the intermediaries like contractors, agents, etc. took monetary

benefit from the housing assistance by the ways of using low-quality materials for housing construction or halt the construction in the middle when they get the full amount from the government. We noticed the role of ward members or other local social activists in increasing the number of semi-finished or low-quality houses. They introduced private contractors to tribal households for housing construction by collecting commissions from contractors/agencies. In most of the cases, these private contractors halted the constructions in the middle stage and cheated tribal members.

Generally, the quality of the house determined by the materials was used for housing construction. The majority of tribal families used mud tile/concrete for roofing (See Appendix Table 8). But some dilapidated or semi-finished concrete houses leaked during the rainy season, especially houses of the Paniyar, Eravaller, and Irular communities. Furthermore, some Paniyar, Kurichyar, and Urali families used Plastic sheets/Asbestos for roofing when the Eravaller families used palm/coconut leaves. The nature of floor materials varied according to the financial status of the tribal families. The majority of tribal houses were cement flooring when the remaining houses used cow dung/red oxide/tile for flooring (See Appendix Table 10). Except for Malayarayar and Urali families, most of the tribal families used cow dung for flooring as part of their tradition and custom.

Table 4.6 Number of family members and the size of tribal houses

No. of rooms	Frequency of family members						Total
	Below 2 Mbrs.	3 – 4 Mbrs.	5 - 6 Mbrs.	7 – 8 Mbrs.	9 - 10 Mbrs.	Above 10	
BHK	3 (0.8)	14 (3.8)	4 (1.1)	2 (0.5)	0 (0)	0(0)	23(6.2)
2BHK	17 (4.6)	77 (20.7)	54 (14.5)	14 (3.8)	2 (0.5)	3 (0.8)	167 (44.9)
3BHK	13 (3.5)	52 (14)	51(13.7)	6 (1.6)	1 (0.3)	2 (0.5)	125 (33.6)
3BH	0(0)	2 (0.5)	3 (0.8)	0 (0)	1 (0.3)	0 (0)	6 (1.6)
2BH	2 (0.5)	9 (2.4)	7 (1.9)	1 (0.3)	2 (0.5)	0 (0)	21 (5.6)
BH	8 (2.2)	11 (3)	8 (2.2)	1 (0.3)	0(0)	0 (0)	28 (7.5)
Others	0 (0)	0 (0)	2 (0.5)	0 (0)	0 (0)	0 (0)	2 (0.5)
Total	43 (11.6)	165 (44.4)	129 (34.7)	24 (6.5)	6 (1.6)	5 (1.3)	372 (100)

Source: Sample Survey Data

$\chi^2 = 40.376$; $df=30$, $p=0.098$, $p>0.05$

Table 4.6 elucidates the relationship between the number of family members and the availability of rooms in the houses. The data showed most of the houses had excess members than its capacity. The Chi-Square Test proved there was no significant association between the number of family members and the availability of rooms in houses when (χ^2) = 40.376 with $df = 30$ at $P = 0.098$, $p > 0.05$.

In Idukki district, the majority of the Malayarayar families lived in 3BHK houses, when most of the Urali families occupied in 2BHK houses. Their maximum family size was up to eight members (see Appendix Table 11). In Wayanad, most of the Kurichyar families stayed in 3BHK houses, and the sizes of the families comprised 0-12 members. Correspondingly, the maximum size of the Paniyar families was up to 18 members, and most of them lived in 2BHK houses. In Palakkad, most of

the Eravaller families resided in 2BHK houses while some of them lived in 2BH/1BH houses, and their maximum family size was 12 members. Likewise, the majority of Irular families lived in 2BHK houses, and their maximum family size was eight members. Also, the data showed there was an association between family size and the availability of the number of rooms in Malayarayar, Urali and Irular houses. It ascertained that some tribal families did not have Kitchen facilities inside the houses due to lack of money for the construction of the kitchen or the part of their cultural taboo. They constructed small huts near the houses for cooking.

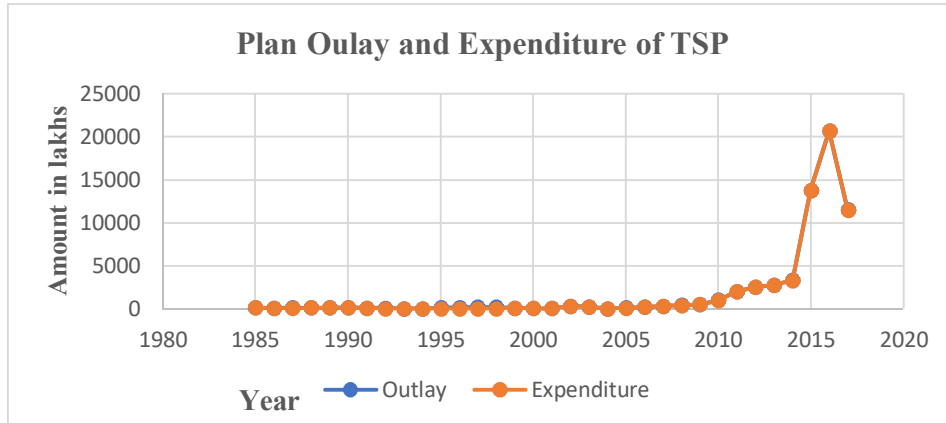
Table 4.7 Sources of financial assistance for housing construction

Govt. authorities	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Tribal department	14 (4.3)	7 (2.2)	21 (6.5)	19 (5.8)	4 (1.2)	27 (8.3)	92 (28.3)
Block Panchayath	18 (5.5)	15 (4.6)	21 (6.5)	29 (8.9)	19 (5.8)	17 (5.2)	119 (36.5)
Grama Panchayath	17 (5.2)	12 (3.7)	7 (2.2)	14 (4.3)	18 (5.5)	21 (6.5)	89 (27.4)
AHADS	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	25 (7.7)	25 (7.7)
Total	49 (15.1)	34 (10.5)	49 (15.1)	62 (19.1)	41 (12.6)	90 (27)	325 (100)

Source: Sample Survey Data

Table 4.7 explains the sources of financial assistance for housing construction. The majority of the tribal families constructed the houses with the support of the various government departments, especially

LSGIs. The ratio of the financial aid distributed by the Block Panchayath and Grama Panchayath (63.9 per cent) for housing schemes was higher than the fund allocation of the Tribal Development Department (28.3 per cent). In Attappady, AHADS performed a key role in the construction of houses for Irualr families. They fixed the magnitude as well as the number of rooms of a house, based on the family size of tribal households, in the operational regions of their projects. Conventionally, the majority of the housing schemes in Kerala have been following stringent and universal criteria for the fixation of housing size and the number of rooms, without considering the family size of beneficiaries. Therefore, the AHADS's Model of Housing Construction could be replicable in the tribal housing programme in Kerala.



Source: Economic Review of Kerala-various years, Reports on Plan Outlays and Expenditure, SPB, Kerala

Figure 4.2 Plan Outlay and Expenditure of TSP in Housing Sector from 1985-2017

Graph 4.2 exhibited the trend of the Plan Outlay and Expenditure of the Tribal Sub Plan in the Housing Sector from 1985-2017. It stated that during this period, the state government allocated 611.78 crores for plan outlay, and spent 601.74 crores for housing construction. It observed there was consistency in the fund allocation for housing construction from 1985 to 2009, and later up to 2014, there was a steady growth rate in the budget allocation of housing construction. In the period 2014-16, the Union and State Ministries provided a lot of financial assistance for housing construction, under the general and Additional Tribal Sub Plan housing schemes. After that, there was a sudden fall in the budget allocation for housing schemes.

Even though the government provided a large amount of financial assistance for housing construction under various housing schemes, some tribal members criticized the housing policies of the government. A man of Kurichyar community at Thazhe Thalappuzha commented: *"See my house. It is semi-finished. I received government assistance for housing construction. But it was insufficient. Do you see how far my house is locating from the roadside? Here is no travelling facility other than a walkway. We are using a pushcart for shifting construction materials from the roadside. Moreover, I don't like concrete houses due to the heat inside it. My mother also likes to sleep outside, in a small hut. We had a traditional house constructed with eco-friendly materials. We were more comfortable with that low-cost house. I don't know why the government denied allocating funds for our traditional model of houses."* In a personal interview, a higher official in the Tribal Directorate explained the criteria of housing construction. The officer replied: *"The majority of*

the tribal families reside in the forest areas. It is the responsibility of the Tribal Department to protect them from wild animals. Thus, we allocate large funds for housing schemes. Under government schemes, there is a lot of procedures regarding funding. It constructs for long-term purpose than the traditional houses. Comparatively, the department gives better financial assistance when compared to other states in India. However, we have some limitations in the policy-making and budget provisions. Tribal members have the right to construct houses with their choice if they spend cash from their own hands. But traditional houses do not provide safety to tribes from wild animal attacks."

After implementing TSP, the drastic changes happened in the housing sector of tribal communities in the state (See Appendix Tables 12 and 13). The data reveal that there were continuous increases in the number of beneficiaries from 1986. At the initial stage, the amount was below 25,000 rupees. According to the state housing policy, distribution of the financial assistance divides into four stages, i.e., 15 per cent as in advance, 25 per cent for the construction of the basement, 45 per cent for the building structure, and 15 per cent for finishing the work. Moreover, the Government of Kerala has linked the labouring of housing construction to the MGNREGA scheme and paid the labour charge of 115 man-days (90 days for housing construction +25 days for toilet construction) to the family members. Accordingly, the beneficiaries will get nearly 4.5 lakhs rupees for housing construction. In 2019, it increased up to 400,000. But this amount is not sufficient for constructing a house in the geography isolated areas or steep hill slope, which failures to satisfy the criteria of housing schemes of the government. Briefly, a house is another form of asset capital which reflects

the socio-economic status of the household. The overall information about the housing structure reveals the nature of houses varied based on the categories of tribal communities. Most of the deprived families lived in poor housing conditions, and it has negatively impacted the education and health status of the family members at a limit.

4.1.3 Infrastructure facilities in tribal houses

The infrastructure facilities perform a pivotal role in the assessment of the development of a society. It is the outcomes of the welfare activities implemented by the government under various schemes. Through the schemes under Tribal Sub Plan, the Union and State ministries have been introducing a lot of welfare measures in the tribal regions, especially the expansion of the fundamental needs and infrastructure facilities. But, the benefits of the welfare measures did not percolate properly to the hamlets in the interior part of the forest or geographically isolated areas. This section deals with information regarding the availability of toilets, electricity, and drinking water facilities in houses.

Table 4.8 Toilet facilities in tribal houses

Toilet facility	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
Yes	69 (18.5)	31(8.3)	55 (14.8)	51 (13.7)	29 (7.8)	56 (15.1)	291 (78.2)
No	0 (0)	3 (0.8)	7 (1.9)	17 (4.6)	16 (4.3)	38 (10.2)	81 (21.8)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

$\chi^2 = 51.186$; $df=5$, $p=0.000$, $p<0.05$

Table 4.8 explains the availability of toilet facilities in tribal houses. It revealed most of the tribal houses had toilet facilities (78 per cent). All Malayarayar families possessed private toilets when some families in other communities depended on public toilets/open places. The Chi-Square test showed there was a significant relationship between the toilet facilities and the category of tribal communities at 5 per cent significance level when $P = 0.000$ in $\chi^2 = 51.186$ with $df = 5$ $p < 0.05$. We identified in the field survey that the socio, economic, and educational status of the family members influenced the need for toilet facilities.

The majority of the families of Paniyar, Eravaller, and Irular communities lived in the community land of each hamlet. The community land is a narrowed place with a high population density, staying up to 125 families in 2/3 acres of land. Hence, they constructed common toilets. Moreover, along with landlessness, they have faced water scarcities for up to six months in a year. Consequently, most of them avoided the usages of toilet facilities because of increasing the rate of water consumption, which was collected from the long-distance of the house. But, as per the norms of housing schemes, the beneficiary must construct toilets; otherwise, they will not receive the subsequent amount and building permit. Most of them used toilets for other purposes, especially Irular families. A housewife of the Irular community commented: "*We have a toilet, but we do not use it due to lack of water. Only six months we get water properly. For the next six months, we will have to travel long distances to collect water. Hence, we do not use the toilets to avoid wastage of water.*"

Table 4.9 Availability of electricity in tribal houses

Avail electricity	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
No	1(0.3)	2 (0.5)	1 (0.3)	28 (7.5)	8 (2.2)	19 (5.1)	59 (15.9)
Yes	68 (18.3)	32 (8.6)	61 (16.4)	40 (10.8)	37 (9.9)	75 (20.2)	313 (84.1)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

$\chi^2 = 56.822$; $df=5$, $p=0.000$, $p<0.05$

Table 4.9 elucidates the details about the electrified tribal houses. The data showed that the majority of the tribal houses were electrified. The non-electrified houses included newly constructed/semi-finished/dilapidated/geographically isolated houses of tribal families, particularly Paniyar, Irular, and Eravaller communities. The Chi-square Test result revealed that there was a deep association between the electrified houses and the categories of tribal communities at 5 per cent significance level, when $p = 0.000$ in $\chi^2 = 56.822$ with $df=5$ ($p < 0.05$).

Table 4.10: Sources of drinking water

Sources of drinking water	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Well	44 (11.8)	4 (1.1)	26 (7)	58 (15.6)	2 (0.5)	4 (1.1)	138 (37.1)
Stream	15 (4)	29 (7.8)	0 (0)	0 (0)	0 (0)	19 (5.1)	63 (16.9)
Govt. scheme	10 (2.7)	0 (0)	11 (2.9)	10 (2.7)	43 (11.6)	71 (19)	142 (39)
Keni	0 (0)	1 (0.3)	25 (6.9)	0(0)	0 (0)	0 (0)	26 (7)
Total	69 (18.5)	34 (9.1)	62 (16.8)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

$\chi^2 = 470.345$; $df=30$, $p=0.000$, $p<0.05$

Table 4.10 explains the sources of drinking water facilities in tribal houses. The majority of tribal families depended on well water or government schemes for the drinking water facilities, except some Urali and Kurichyar families. They predominantly depended on Keni/stream water for drinking water facilities. The Chi-Square Test showed there was a significant association between the sources of drinking water facilities and the areas of tribal communities, when the P-value = 0.000, at $\chi^2 = 470.345$ with $df = 30$ ($p < 0.05$).

In Idukki, the majority of Malayarayar families used well water for drinking facilities when the Urali families depended on stream water for kitchen purposes. Most of the Urali families lived on the slope of hills, and they did not get any assistance from the government for drinking water facilities. They collected stream water through long rubber tubes from the top of the hill at their own risk. In Wayanad, the majority of Paniyar and Kurichyar families were used Keni/well water for drinking purposes. Each Paniyar hamlet maintained one/two public wells constructed under the Jalanidhi project of the government. Based on the population density of the hamlet/the availability of water in the locality, the department decides the number of wells in a hamlet. Because of high population density (See Chapter 3, Table 3.1), some Paniyar families faced unimaginable water scarcities in the summer seasons, especially in Nedumbalakkunnu and Puthurkkunnu hamlets. In Nedumbalakkunnu, only two wells were available for 280 members in the hamlet for water usage. It is an unforgettable memory of field survey that the young women waiting near the deepened well with many buckets for springhead

during the summer season. 'Keni' is one of the sources of water in tribal areas, especially in Kurichyar hamlets. From the ancient period onwards, tribal communities have been consuming Keni water for drinking purposes. It constructs on the nearest places of the river/paddy field with the support of traditional tribal knowledge.

The majority of tribal families depended on government schemes for drinking water facilities in Palakkad. The Jalanidhi project was implemented in most of the tribal hamlets of Irular and Eravaller communities. Moreover, each hamlet had a well and a tank for conserving water for the supply of each house through a pipe connection. They supplied water only for one hour in two or three days a week. The Irular families lived in isolated areas used stream water for drinking/kitchen purposes. We observed that the stream water was highly contaminated due to the open defaecation of people in the upper part of the watercourse. The tribal families resided in the lower part of tribal areas, dug a small pit on the bank of the stream, and collecting the springhead for drinking purposes directly and using without any filtering process. It will cause health problems for the tribal members in these hamlets.

The Eravaller community in Muthalamada Grama Panchayath has faced severe water scarcity, especially during the summer seasons due to uncontrollable quarry mining in these areas. Before mining, tribal members have used the canal water for cultivation and other livelihood activities. Gradually, quarry mining destroyed their land and livelihood options. The hamlet leader of the Ambedkar Colony commented: "*Our ancestors possessed a lot of cultivated lands in these areas. But it was*

encroached by the migrants' workers from Tamil Nadu. Consequently, we became agriculture labours. Moreover, in the earlier period, we had cultivated various types of crops because of water availability and better climates. But the quarry mafia destroyed everything with the support of the political parties and bureaucrats. The weather changed, and our canals dried. Thus, the soil fertility of agriculture lands lost and also declined labouring works in agriculture. It reduced our wages. Gradually we became financially insecure." Moreover, Muthalamada is one of the mango hubs in India, and the majority of tribal hamlets in this region located in the middle/nearest part of this farming lands. The problem is that the locations of wells are inside or much closer to the agriculture lands. During the farming season, the farmers spray pesticides four/five times with the support of gigantic machines up to the top of the trees. Thus, the pesticides mix with the well water. In the field survey, we observed that banned pesticides like Endosulfan were using in these areas in uncontrollably, and it has already affected the health of tribal people. The tribal children suffered the most. Some respondents informed that the number of Autism/disabled children in their localities has been increasing year after year. However, they are helpless and incapable of fighting against the leading business groups who invested in mango cultivation in Muthalamada.

4.2 Infrastructure Facilities in the Tribal Hamlets

4.2.1 Locality of hamlets and accessibility of public service facilities

The locations of houses and easy accessibility of the public service facilities influence the socio-economic development of family members

in a society/community. This section tries to identify the accessibility of various service facilities in tribal areas. It deals with the locality of homestead land/hamlet, distance from house to the bus stop, retail shop, and ration shop. Furthermore, it reveals the inter-community and intra-community disparities in the accessibility of public service facilities based on the distance from their house.

Table 4.11 Locality of homestead lands / hamlets

Locality of homestead land	Communities						Total
	Malayarayar	Urali	Kurichiyar	Paniyar	Eravaller	Irular	
Steep hill slope	0 (0)	21 (5.6)	13 (3.5)	0 (0)	0 (0)	0 (0)	34 (9.1)
Road side	60 (16.1)	6 (1.6)	24 (6.5)	49 (13.2)	36 (9.7)	90 (24.2)	265 (71.2)
Far from road side	9 (2.4)	7 (1.9)	25 (6.8)	10 (2.7)	9 (2.5)	4 (1.1)	64 (17.3)
Forest areas	0 (0)	0 (0)	0 (0)	9 (2.4)	0 (0)	0 (0)	9 (2.4)
Total	69 (18.5)	34 (9.1)	62 (16.8)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 4.11 explains the locality of the houses of various tribal communities. Most of the tribal communities lived nearby main road/pocket road, except Urali families. The majority of Urali families lived in the steep hill slope with no travelling facilities other than a walkway. The study used certain criteria for assessing the road accessibility of houses in the tribal areas, such as the road facilities below

150 metres from the house, Jeep/Auto accessibility, and the road must tarred/red soil.

In Idukki, the majority of Malayarayar families lived in plain-lands when most of the Urali families settled in steep hill slope. Moreover, the road facilities were better in the localities of the Malayarayar community, and it was constructed with tarred/metal/red soil (see Appendix Table 15). But, in the localities of Urali hamlets, most of the roads were soil-made, and there were difficult for travelling due to improper maintenance. Moreover, during the rainy season, Urali families confronted a lot of difficulties for travelling, especially the families settled in the top of the hill. They needed to travel nearly two kilometres from top to bottom for the accessibility of various services. In Wayanad, the majority of Kurichyar families lived in their traditional lands in the hilly areas under the control of the apex house, named as Tharavad. However, the road facilities were available and were constructed with metal/red soil (See Appendix Table 15). But, in the case of settlement land like the Godavari, the Kurichyar families lived the hill slope or isolated areas who experienced many difficulties for travelling. Most of the Paniyar hamlets, except Pathiriyambam, located nearby the roadside and availed vehicle facilities.

In Palakkad, the majority of Eravaller and Irular families lived in the plain-land with tar/metal road facilities near the hamlets. However, some isolated families faced difficulties for vehicle facilities. In Muthalamada, there were two bus services available only in the morning and evening to Chappakkad hamlet of the Eravaller community. In the

gap of bus services, they primarily depended on Jeep/Auto services for travelling, otherwise walked nearly four kilometres for travelling to the next bus stop. But, in the case of Irular hamlets, there were no bus services to Kulappadika and Cheerakkadav hamlets in Puthur Grama Panchayath. They also depended on Jeep/auto for travelling. It revealed that the lack of travelling facilities or difficulties in travelling negatively affected the education and employment opportunities of tribal members. Consequently, it generated poverty and vulnerability among tribal families.

Table 4.12 Distance from house to bus stop

Distance from house (km)	Communities						Total
	Malayarayar	Uruli	Kurichiyar	Paniyar	Eravaller	Irular	
Within 0.5	33 (8.9)	7 (1.9)	28(7.5)	27 (7.3)	35 (9.4)	38 (10.2)	168 (45.2)
0.5 - 1	19 (5.1)	3 (0.8)	6 (1.6)	9 (2.4)	8 (2.2)	9 (2.4)	54 (14.5)
1 - 4	17 (4.6)	24 (6.5)	28 (7.5)	32 (8.6)	2 (0.5)	47(12.6)	150 (40.3)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 4.12 explains the distance between the bus stop and the houses of tribal families. Among them, 45 per cent of tribal families lived in a half kilometre distance from the bus stop when others stayed up to 4 kilometres far from the bus stop. Even though the majority of tribal hamlets were located near the roadside, most of the houses were situated

1 to 4 kilometres far from the bus route. The school/college going students were major victims of the unavailability of vehicles, and every day, they needed to walk long distances. The Report on the Socio-economic status of Scheduled Tribes of Kerala 2013 stated that out of 4,762 hamlets, 2875 hamlets connected by a road, and footpaths were available only in 1225 hamlets, and 366 hamlets did not have connectivity with the road.

Table 4.13 Distance from house to retail shop

Distance from house (km)	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
Within 0.5	39 (10.5)	7(1.9)	23 (6.2)	35 (9.4)	30 (8.1)	64 (17.2)	198 (53.2)
0.5 - 1	24(6.5)	6(1.6)	6 (1.6)	10 (2.7)	1 (0.3)	16 (4.3)	63 (16.9)
1 - 4	6(1.6)	21(5.6)	28 (7.5)	23 (6.2)	0 (0)	14 (3.8)	92 (24.7)
4 - 7	0(0)	0(0)	5 (1.3)	0 (0)	14 (3.8)	0 (0)	19 (5.1)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 4.13 explains the distance between the house of tribal families and the nearest retail shop. The majority of tribal households got retail shopping facilities within one kilometre from their house. But, in the case of some Kurichyar and Eravaller families, their houses were located four kilometres far from the nearest retail shops.

Table 4.14 Distance from house to Ration shop

Distance from house (km)	Communities						Total
	Malayarayar	Urali	Kurichiyar	Paniyar	Eravaller	Irular	
Within 0.5	31 (8.3)	7 (1.9)	23 (6.2)	8 (2.2)	0 (0)	61 (16.4)	130 (34.9)
0.5 – 1	21 (5.6)	3 (0.8)	6 (1.6)	4 (1.1)	5 (1.3)	18 (4.8)	57 (15.3)
1 – 4	17 (4.6)	24 (6.5)	28 (7.5)	56 (15.1)	17 (4.6)	15 (4)	157 (42.2)
4 – 7	0 (0)	0 (0)	5 (1.3)	0 (0)	23 (6.2)	0 (0)	28 (7.5)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 4.14 explains the distance between the houses and the ration shop. Most of the tribal houses were situated more than one kilometre from the ration shops. The other families, especially Kurichiyar and Eravaller communities, needed to travel more than 4 kilometres to ration shop for purchasing groceries. Moreover, because of the vehicle shortages to ration shop, most of the families depended on walking.

4.2.2 Inter-community and Intra-community disparities in the distance between the tribal houses and the accessibility of public service facilities

The accessibility of public service facilities in the nearest areas of the house will influence the comprehensive development of families in a society. Table 4.15a explains the intra-community disparities in the distance between the houses and the public service institutions. We conducted the One-Way ANOVA test for identifying the inter-community and intra-community disparities between the house to various public service facilities with the support of index values. The distance index was

prepared based on the average value of the averages of various sub-indexes, such as distance from house to educational institutions, health services, government offices, purchasing centres, and bus stop. The index of distance to educational institutions included the variables of distance from house to Anganawadi, L.P School, U.P School, High School, Higher Secondary School, and Colleges. The distance to Medical College and PHC added in the index of distance to health service centres. The index of distance to the bus stop and purchasing centres consisted of the distance between the house and bus stop, retail shop, ration shop, and market. Finally, the index of distance to government offices explained how far the tribal house was located from the Police Station, Post Office, Bank, KSEB, Tribal Extension Office, Tribal Development Office/ITDP, Employment Exchange, and Grama Panchayath.

Table 4.15a Intra-community disparities in the distance between house and public service facilities

Communities	N	Descriptive					
		Mean	S. D	Std. Error	Coefficient of variation	Min.	Max.
Malayarayar	69	3.432	.4603	.0554	13.412	2.771	4.250
Urali	34	4.172	.3604	.0618	8.639	3.667	4.604
Kurichyar	62	3.717	.2325	.0295	6.26	3.271	4.261
Paniyar	68	3.805	.4252	.0515	11.175	3.271	4.604
Eravaller	45	4.400	.4392	.0654	9.98	3.636	5.042
Irular	94	4.119	.3989	.0411	9.68	3.646	4.958
Total	372	3.906	.5019	.0260	12.85	2.771	5.042

Source: Sample Survey Data

The descriptive of the One-Way ANNOVA test revealed that the Malayarayar families (M = 3.432, S.D = 0.4603, C.V = 13.412) revealed the highest disparities in the accessibility of public service facilities within the community and followed by the Paniyar community (M = 3.805, S. D = 0.4252, C.V = 11.175).

Table 4.15b One-way ANOVA

ANOVA					
Distance between house and public service facilities					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	36.062	5	7.212	45.998	.000
Within Groups	57.388	366	.157		
Total	93.450	371			

Source: Sample Survey Data

The One-Way ANOVA test was used for identifying the inter-community disparities in the distance between the houses and public service institutions. The result showed that there was a statistically significant difference between the tribal communities, in the distance from their houses to various public service centres at 5 per cent significance level, when $F(5,366) = 45.998$, $P = 0.000$.

Table 4.15c Inter-community differences in the distance between the house and public service facilities

Multiple Comparisons						
Tukey HSD						
(I) Community	(J) Community	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Malayarayar	Urali	-.7394037*	.0829706	.000	-.977105	-.501703
	Kurichyar	-.2848652*	.0692923	.001	-.483379	-.086351
	Paniyar	-.3726684*	.0676629	.000	-.566515	-.178822
	Eravaller	-.9678285*	.0758737	.000	-1.185198	-.750459
	Irular	-.6872369*	.0627733	.000	-.867075	-.507399
Urali	Malayarayar	.7394037*	.0829706	.000	.501703	.977105
	Kurichyar	.4545384*	.0845025	.000	.212448	.696628
	Paniyar	.3667353*	.0831717	.000	.128458	.605013
	Eravaller	-.2284248	.0899782	.116	-.486202	.029352
	Irular	.0521668	.0792449	.786	-.174861	.279194
Kurichyar	Malayarayar	.2848652*	.0692923	.001	.086351	.483379
	Urali	-.4545384*	.0845025	.000	-.696628	-.212448
	Paniyar	-.0878031	.0695330	.705	-.287007	.111401
	Eravaller	-.6829633*	.0775460	.000	-.905123	-.460803
	Irular	-.4023717*	.0647846	.000	-.587972	-.216771
Paniyar	Malayarayar	.3726684*	.0676629	.000	.178822	.566515
	Urali	-.3667353*	.0831717	.000	-.605013	-.128458
	Kurichyar	.0878031	.0695330	.705	-.111401	.287007
	Eravaller	-.5951601*	.0760936	.000	-.813159	-.377161
	Irular	-.3145685*	.0630389	.000	-.495168	-.133969
Eravaller	Malayarayar	.9678285*	.0758737	.000	.750459	1.185198
	Urali	.2284248	.0899782	.116	-.029352	.486202
	Kurichyar	.6829633*	.0775460	.000	.460803	.905123
	Paniyar	.5951601*	.0760936	.000	.377161	.813159
	Irular	.2805916*	.0717805	.002	.074949	.486234
Irular	Malayarayar	.6872369*	.0627733	.000	.507399	.867075
	Urali	-.0521668	.0792449	.786	-.279194	.174861
	Kurichyar	.4023717*	.0647846	.000	.216771	.587972
	Paniyar	.3145685*	.0630389	.000	.133969	.495168
	Eravaller	-.2805916*	.0717805	.002	-.486234	-.074949

*. The mean difference is significant at the 0.05 level.

Source: Sample Survey Data

The descriptive analysis already proved that there were significant differences within the tribal communities on the distance between tribal houses and public service institutions. However, it is not sufficient for detailed community-wise explanations. Hence, the Tukey Post Hoc test was used for the ‘multiple comparisons’ between the tribal groups that identifying the pair-wise difference between them. The result explained there was a statistically significant difference between the groups like Malayarayar and Urali ($P = 0.000$), Malayarayar and Kurichyar ($P = 0.001$), Malayarayar and Paniyar ($P = 0.000$), Malayarayar and Eravaller ($P = 0.000$), Malayarayar and Irular ($P = 0.000$), Urali and Kurichyar ($P = 0.000$), Urali and Paniyar ($P = 0.000$), Kurichyar and Eravaller ($P = 0.000$), Kurichyar and Irular ($P = 0.000$), Paniyar and Eravaller ($P = 0.000$), Paniyar and Irular ($P = 0.000$), and Eravaller and Irular ($P = 0.002$). However, there was no statistically significant difference between the house and the public service facilities among some tribal communities like Urali and Eravaller ($P = 0.116$), Urali and Irular ($P = 0.786$), and Kurichyar and Paniyar ($P = 0.705$).

According to the Tukey Post Hoc Test, the Malayarayar community ($M = 3.432$) easily received public service facilities near their localities when compared to other tribal communities. The Kurichyar ($M = 3.717$) and Paniyar ($M = 3.805$) communities were in the second position in the accessibility of the public service centres. The Urali ($M = 4.172$), Irular ($M = 4.119$), and Eravaller ($M = 4.4$) were positioned in the third level of the test result (see Table 4.15a), and among them, Eravaller families were facing more difficulties in the accessibility of the government services. Moreover, we observed some families in the geographically isolated areas

in all communities faced severe travel difficulties due to the unavailability of road facilities or vehicles. It has directly or indirectly adversely impacted their educational and health status, interactions with the public, accessibility of government services, employment opportunities, communication facilities, cost of housing construction, etc.

In brief, the Basic Need Approach was followed by the government in tribal development programmes under the Tribal Sub Plan, especially in the expansion of infrastructure facilities in tribal houses/hamlets. Moreover, there were notable differences between tribal communities in the land distribution, types of houses, availability of transportation facilities, nature of roads, etc. The land carries out a pivotal role in the asset formation of aboriginal families. Based on this, the attainment of the mobility of these communities was divided into three categories. First, the mobility of the communities that had traditionally possessed a sizable amount of land as well as possessed inherited high cultural capabilities, like Malayarayar and Kurichyar; Second, the mobility of the communities those had traditionally owned a sizable amount of land, but culturally backward groups, like Irular and Urali; and third, the mobility of the communities those who possessed modest sizes of land/landless and culturally backward groups, like Paniyar and Eravaller.

While considering land as a substantial asset, it has a major role in the capability formation of tribal communities because of their cult, culture, traditional knowledge, working skills, etc. are related to land (Kunhaman, 1989). In the study, the deprived communities possessed only fewer amounts of lands, and it adversely impacted on their sources

of income and also the economic/asset capabilities of tribal families. When compared to other communities, Malayarayar families possessed a sizable amount of land, and relatively it equally divided within the community. Because of the intrusion of migrants to the tribal regions, most of the Irular families lost their lands in Attappady. Even though the Act passed by the Supreme Court for the restoration of alienated land of tribes, the State government took a lackadaisical approach to it. But they have supported the settlers to legitimise the tribal land that encroached by the non-tribes illegally. Except for Malayarayar and Urali families in Idukki, most of the families in other communities had the title deed. Due to objections from the Forest Department, the government did not provide the title deed to these families who reside in or near the forest areas. Under various schemes, the Tribal Department and LSGIs distributed a lot of funds for land purchasing. As a part, many scandals were going on the selection and the distribution of lands for landless families in some tribal hamlets, particularly in Puthur and Muthalamada Grama Panchayaths in Palakkad district. In most of the cases, the political involvement was much higher, especially the land distribution schemes under the LSGIs.

Most of the tribal families had only limited infrastructure facilities, except Malayarayar families. Moreover, in most of the cases, the transportation facilities were extremely limited because of the geographical isolation, lack of road facilities and vehicle accessibility, etc. It adversely affected the economic stability of tribal families, especially family members in interior parts of the tribal regions, by the ways of spent a lot of money for daily travels of family members for going

work/college/schools. Moreover, it indirectly infested the education and health status of tribal communities. It is worth mentioning a house with better infrastructure facilities has an influential role in the education, health, and employment status of the family members in a society. It could assess from the progressiveness of the Malayarayar communities that acquired better education, health, and employment status through possessing the sizable amount of land, better houses, and better infrastructure facilities.

In this chapter, we tried to reveal the development lag between various tribal communities by analysing the lacunae of capital, particularly assets and social capital, in tribal families. The field inferences illustrated the welfare schemes under the Tribal Sub Plan tried to overcome the lack of infrastructure facilities among tribal families. Thus, the intensive implementation of several housing schemes over the last few years, the government has resolved housing problems in the tribal areas at a certain limit. With the support of several schemes under the Tribal Sub Plan, various government departments and LSGIs have partially overcome the issues on the availability of drinking water, toilet, and electricity in the tribal areas. These interventions promoted the education and health status of the family members. It has analysed in the next chapter in detail.



TSP AND THE EDUCATION, HEALTH AND LIVELIHOOD OF TRIBAL COMMUNITIES

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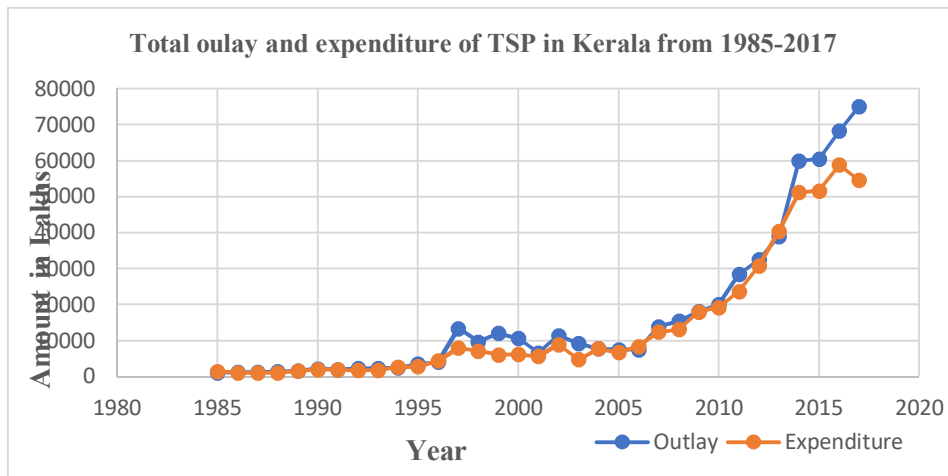
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The term 'poor' means those who have income below the poverty line. But a single-dimensional parameter like income cannot be able to describe the intensity of poverty of a family. Poverty closely links with multi-dimensional parameters such as low health status, lack of sanitation, lack of drinking water facilities, illiteracy, poor education, and lack of shelter (Sen, 1995). In the case of tribal communities, poverty closely links with the indigeneity of the tribal population. Though the term 'tribe' is a general terminology, the deprivation rate among the tribal communities is different. In Kerala, the tribal population faces various forms of

deprivation, such as geographical deprivation, financial deprivation, social deprivation, and cultural deprivation. Moreover, the deprivation rate was higher among the tribal communities/families who did not have land or owned only a small size of land, lack of social and cultural capital, geographical isolation and lack of infrastructure facilities, inequalities in the distribution of livelihood assistance, etc.

The multidimensional poverty and vulnerabilities adversely affect the human capability formation of tribal communities, especially deprived tribal groups. It negatively impacted their wealth distribution, employability, and income generation. The advancements in education and health status closely link with the distribution of wealth and the employability of individuals. Therefore, education, health, and employment consider as tools for the capability formation of tribal members. Hence, it is essential to analyse the role of the Tribal Sub Plan in the enhancement of education, health, and employment of tribal members. The study tried to find out the inter-community disparities between the tribal families in education, health, and employment status of tribal members; the role of various government departments and para-workers in the tribal regions as supporting agents for the transformation of tribal members; the hindrance of educational, health and employment attainments of tribal members. At last, it tried to understand inter-community and intra-community disparities between the tribal communities in the social mobility and socio-economic status of tribal households by the support of various indicators.

According to the Tribal Sub Plan guidelines, the budget provisions of the TSP decide based on the proportion of Scheduled Tribes population (1.45 per cent) to the total population of the State. However, the Government of Kerala has been allocating nearly 3 per cent of the aggregate state plan outlay for the tribal development activities under the TSP, to the distinct sectors like education, health, resettlement of landless tribes, livelihood assistance, etc. Through this, the government has been trying to find out solutions for the hindrance of the fundamental need attainments and enhancement of capabilities through the promotional activities of education, health, livelihood options, etc. Moreover, the government assigned more priority to the expansion of basic need programmes rather than schemes for poverty alleviation.



Source: *Economic Review -various years, Reports on Plan Outlays and Expenditures, SPB, Kerala*

Figure 5.1: Total Plan Outlays and Expenditures of the TSP in Kerala (1985-2017)

Figure 5.1 explains the trend in the total plan outlays and expenditures of the Tribal Sub Plan in the state during the period 1985-2017. Both the Union and State Ministries have allocated nearly 5513.57 Crore rupees for the annual budget provisions and spent 4657.36 Crore rupees for tribal development in the state from 1985 to 2017. There was a steady move in the budget allocation of TSP during the period from 1985 to 1995. Over time, it has gradually increased since 1995.

In this chapter, the we tried to analyse the role of the Tribal Sub Plan in the progressiveness of education, health, and livelihood options of tribal communities in Kerala. Therefore, it mainly categorised into six segments, such as the impact of the TSP on the educational attainments of tribal population, health services in the tribal areas, employment status of tribal population, distribution of livelihood assistance of the tribal population, indebtedness of tribal households, and inter-community and intra-community differences in the social capabilities and socio-economic status of the tribal communities.

5.1 Tribal Sub Plan and the Educational Attainments of Tribal Communities

The Human Development and Capability Approaches suggest that education has three roles: instrumental, empowering, and redistribution. It helps to formulate capabilities by providing necessary productive skills to people (Elanine, 2009). But, in the case of deprived societies, not only educational qualifications but also asset holding capacities and traditional empowerments have pivotal roles in the capability formation of family members, especially for competing with the modern world. In Kerala, the

Union and State ministries promote the capability formation of aboriginals by formulating various schemes under the TSP. However, their educational status was poor when compared to the general population in the state. Here, the study tried to understand the contributions of the Tribal Sub Plan in the tribal education sector by the ways of analysing the educational status of tribal members, the dropout rate of tribal students in various communities, school facilities in the tribal locations, and educational assistance of the government for the enhancement of tribal education.

The section reveals that more than half of the tribal families had school or college going students (Table 5.1) and the majority of them studying in the government/aided institutions in the nearest localities (Tables 5.5, 5.6 and 5.7). Also, the proportion of tribal students in higher education courses was comparatively low (Table 5.2), especially in technical courses (Table 5.3). For the promotion of tribal education, the Union and State ministries have been formulating and implementing lots of educational schemes and allotting huge amounts of funds for the annual budget provisions under the TSP (Figure 5.2, Table 5.8a, 5.8b and 5.9). However, the dropout rate among the school going children was higher among the deprived tribal groups (Table 5.4).

5.1.1 Basic Profile of the educational status of Tribal communities

The educational attainments of the members in society have pivotal roles in the socio-economic empowerment and the transformation in the lives of human beings through the accessibility of better job facilities and enhancement of human capabilities. The literacy rate and educational attainments of tribal members, especially among the deprived tribal

groups, were comparatively low when compared to the general population in the state. According to the Census 2011, in Kerala, the literacy rate of the Scheduled Tribe was 75.8 per cent while the literacy rate of the general population was 93.91 per cent.

5.1.1.1 Status of School or College going students

In this study, the numbers of homes with learners in the tribal areas identified according to the criteria that at least one school/college going students has in each house. Moreover, it is necessary to determine the reasons behind the educational backwardness of the tribal members and whether the tribal communities reluctant to send their children to school.

Table 5.1: Status of school or college going students

Students at home	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Not studying	0 (0)	3 (0.8)	2 (0.5)	17 (4.6)	6 (1.6)	4 (1.1)	30 (8.6)
Studying	28 (7.5)	21 (5.6)	41 (11)	39 (10.5)	25 (6.7)	52 (14)	206(55.4)
NA	41 (11)	10 (2.7)	19 (5.1)	12 (3.2)	14 (3.8)	38 (10.2)	136(36)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372(100)

Source: Sample Survey Data

Table 5.1 explains the status of school or college going students in a house. The school/college going students were only in 55 per cent of the tribal families. In the case of other tribal households, the students were dropouts (8.6 per cent), or there were no students in the family. It observed that, except the Malayarayar community, the students dropped out in some families of all tribal communities.

5.1.1.2 Educational qualifications of the family members

The educational qualifications of the tribal members were classified into an illiterate, nursery, schooling, technical, college education and professional courses, etc., for the micro-level evaluation of the educational status of tribal members. It helped to understand the inter-community disparities in the educational status of tribal members.

Table 5.2: Educational Qualifications of the family members

Educational Qualification	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Illiterate	21(1.3)	14 (0.8)	68 (4.1)	130 (7.8)	77 (4.6)	136 (8.2)	446 (26.8)
Nursery	6 (0.4)	4 (0.2)	8 (0.5)	9 (0.5)	7 (0.4)	18 (1.1)	52 (3.1)
LPS	19 (1.1)	32 (1.9)	33 (2)	74 (4.5)	27 (1.6)	44 (2.6)	229 (13.8)
UPS	25 (1.5)	18 (1.1)	40 (2.4)	74 (4.5)	17 (1)	51 (3.1)	225 (13.5)
HS	102 (6.1)	56 (3.4)	84 (5.1)	71 (4.3)	58 (3.5)	75 (4.5)	446 (26.8)
HSS	36 (2.2)	18 (1.1)	36 (2.2)	13 (0.8)	10 (0.6)	32 (1.9)	145 (8.7)
ITI	7 (0.4)	0(0)	3 (0.2)	2 (0.1)	0(0)	5 (0.3)	17 (1)
Diploma	9 (0.5)	0(0)	1 (0.1)	0 (0)	0 (0)	4 (0.2)	14 (0.8)
Degree	22 (1.3)	5 (0.3)	20 (1.2)	3 (0.2)	3 (0.2)	13 (0.8)	66 (4)
P.G	0 (0)	0(0)	4 (0.2)	0 (0)	0 (0)	2 (0.1)	6 (0.4)
Professional	9 (0.5)	0(0)	2 (0.1)	0 (0)	0 (0)	0 (0)	11 (0.7)
Others	0 (0)	0(0)	0(0)	1 (0.1)	2 (0.1)	2 (0.1)	5 (0.3)
Total	256 (15.4)	147 (8.8)	299 (18)	377 (22.7)	201 (12.1)	382 (23)	1662 (100)

Source: Sample Survey Data

Table 5.2 points out the educational status of tribal members. Nearly one-fourth of the tribal people were illiterates. It is worth

mentioning that only 16 per cent of tribal members were the qualification above the 10th standard. The remaining tribal members possessed only school-level qualifications. Moreover, the table reveals the remarkable difference between the academic status of progressive and deprived tribal communities in higher education. The attainments in the higher education status of Urali, Paniyar, and Eravaller communities were maximum only up to the graduate level. But a few members in the Malayarayar and Kurichyar families were studying or qualified professional courses like MBBS or B.Tech. It was the reflections in the educational attainments of ancestors in historically, enhancement in the socio-economic capabilities of family members through various financial assistance getting from the government, etc.

The educational status of the Irular community in Attappady depicted even if their socio-economic status were wretched/moderate, their attainments in higher education was notable, which was similar to the educational status of progressive communities. In this context, it should mention the role of the concerted interventions of government institutional networks, especially the Tribal Development Department and Education Department, in the academic attainments of tribal students in Attappady. There are several pre-matric and post-matric hostels, Model Residential School, Govt. Higher Secondary Schools, Govt. ITI, several government schools, and Govt. Arts and Science College have been functioning in Attappady Block under these departments. Moreover, the progressiveness in the tribal education sector in Attappady is evidence that the collective action of an efficient system can generate transformations among the economically disadvantaged groups like tribal communities.

Table 5.3: Higher educational status of tribal students

Higher education course	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Graduate	10(19.2)	2 (3.8)	13(25)	1(1.9)	1(1.9)	8 (15.4)	35 (67.3)
P. G	1 (1.9)	0 (0)	0 (0)	0 (0)	0 (0)	2 (3.8)	3 (5.8)
Diploma	4 (7.7)	0 (0)	2 (3.8)	0 (0)	0 (0)	1(1.9)	7 (13.5)
Professional	2 (3.8)	0 (0)	0(0)	0(0)	0(0)	0(0)	2 (3.8)
Others	1 (1.9)	0 (0)	0 (0)	0 (0)	2 (3.8)	2 (3.8)	5 (9.6)
Total	18 (34.6)	2 (3.8)	15 (28.8)	1 (1.9)	3 (5.8)	13 (25)	52 (100)

Source: Sample Survey Data

$\chi^2 = 24.134$; $df=20$, $p=0.237$, $p>0.05$

Table 5.3 elucidates the higher educational status of tribal students. A very few students were studying in higher education courses, and the majority of them from Malayarayar, Kurichyar, and Irular communities. Moreover, the majority of them were studying in Degree courses. Only a handful number of students from the Urali, Paniyar, and Eravaller communities were studying in higher education courses, and their studies limited to only in degree courses. Furthermore, it observed there were significant inter-community disparities between the tribal families in the higher educational status of tribal members. The Chi-Square Test pointed out that there was no association between the higher educational qualifications of tribal members and the categories of tribal communities when $(\chi^2) = 24.134$ with $df = 20$ at $P = 0.237$.

The initiatives of tribal education programmes under the Tribal Sub Plan promoted the universalisation of school-level education of tribal members. But this transformation did not extend to the universalisation of higher education options of tribal members. Moreover, the numbers of tribal students enrolled in the higher education courses were much lower than the numbers of passed out tribal students in HSS/SSLC examinations in each year. The number of tribal students in the technical courses was comparatively low, especially among the deprived tribal communities. According to Economic Review (2018), the proportion of tribal students enrolled for Polytechnic courses in the state was only 0.96 per cent when the proportion of general students was 92.26 per cent during the academic year 2018-19. In the case of Technical High school, the number of Scheduled Tribes students has declined from 0.81 per cent in 2017-18 to 0.73 per cent in 2018-19. Furthermore, in 2017-18, the enrolment of the Scheduled Tribe students in the Arts and Science colleges was 6,601 in which the number of graduates and post-graduate students was 4,977 (2.08 per cent) and 1,624 (4.18 per cent) respectively.

5.1.1.3 Dropout of the tribal students at the age below 20 years

The government has been allocating a better portion of the Tribal Sub Plan funds for the upliftment of tribal education in the state. However, the high dropout rate and low participation rate of tribal students in higher education courses have undermined the value of transformation in the tribal education sector. According to the Economic Review 2018, in 2017-18, the dropout rate of school students in the general population in the state was 0.16 per cent only while the dropout

rate of Scheduled Tribes students was 1.42 per cent. The rate of tribal students who quit education was high in Wayanad (2.59 per cent) and Malappuram (2.64 per cent) districts in the academic period 2017-18.

Table 5.4a: Dropout of the tribal students at the age below 20 years

Number of dropouts at age below 20	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
No dropout	69 (18.5)	27 (7.3)	60 (16.1)	33 (8.9)	32 (8.6)	79 (21.2)	300 (80.6)
1 person	0(0)	7 (1.9)	2 (0.5)	23 (6.2)	13 (3.5)	12 (3.2)	57 (15.3)
2 persons	0(0)	0 (0)	0 (0)	8 (2.2)	0 (0)	3 (0.8)	11 (3)
3 persons	0(0)	0 (0)	0 (0)	4 (1.1)	0 (0)	0 (0)	4 (1.1)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 5.4a describes the number of dropout students at the age below 20 years. Only 20 per cent of the families had dropout students, particularly among Paniyar, Eravaller, and Irular communities. There were no dropouts in Malayarayar community when the number of dropout students was high among Paniyar families. The field inferences indicate that the factors like the linguistic minority students in the border areas, non-accessibility of travelling facilities, long-distance between house and school, failure in exams, approaches of teachers and classmates, lack of understanding the medium of languages, poverty and financial insecurities, engaged in labouring works due to poverty, etc. negatively impacted the educational attainments of tribal communities.

5.1.1.4 Educational status of tribal students at the time of dropout

According to the statistical report of various government departments, the proportion of dropout students among the tribal communities was higher when compared to the dropout rate of the general students. In this study, the dropout details of tribal students were limited to the age below 20 years because of the universalisation of schooling education up to the Higher Secondary level.

Table 5.4b: Educational status of the tribal students at the time of dropout

Dropout class	Communities					Total
	Urali	Kurichyar	Paniyar	Eravaller	Irular	
LPS	0 (0)	0 (0)	7 (7.7)	1 (1.1)	0 (0)	8 (8.8)
UPS	0 (0)	0 (0)	14 (15.4)	1 (1.1)	0 (0)	15 (16.5)
HS	3 (3.3)	2 (2.2)	21 (23.1)	5 (5.5)	9 (9.9)	40 (44)
HSS	4 (4.4)	0 (0)	9 (9.9)	6 (6.6)	9 (9.9)	28 (30.8)
Total	7 (7.7)	2 (2.2)	51 (56)	13 (14.3)	18 (19.8)	91 (100)

Source: Sample Survey Data

Table 5.4b illustrates the educational status of dropout students. The majority of the tribal students quit their studies in High School (44 per cent) and Higher Secondary (30.8 per cent) levels, except Paniyar and Eravaller communities. The majority of the dropout students were Paniyar (56 per cent) and Irular (19.8 per cent) communities. The study found that the number of dropouts increased at the school level because of language problems, approaches of teachers and classmates, lack of interest of students and parents, caste discrimination, distance to schools, etc. Moreover, the government failed to introduce a tribal-friendly education

method in the Model Residential schools and government schools in tribal regions. A Higher Secondary dropout student of the Eravaller community shared: *"I discontinued my studies in +1 class due to language problems and the indifferent behaviour of teachers and classmates. Because of speaking Tamil in our community, I studied in Tamil medium school up to 10th standard. So, I don't know Malayalam in properly, and also, English is very difficult for me. And also, teachers and classmates are always mocking my tribal friends and me. Moreover, they tried to isolate us, from the classroom interactions, by allocating separate seats for us in the name of poor academic performance. It was ashamed for me facing caste discrimination within the class"*.

In the case of higher education courses, even though the government pays fees and other charges, students need to find out more money for additional expenses like travelling, purchasing books, etc. Moreover, if they study in the neighbouring district/far from the house, they need to pay hostel fees. Thus, the students forcefully go for part-time jobs for paying additional expenses. It adversely affected their regular attendance in the classrooms and other academic activities. Consequently, it was affected their academic performance and pass percentage in the examinations. Gradually, the students selected dropout options.

5.1.2 Facilities available for the educational attainments of the tribal students

The accessibility of educational institutions in the nearest locations of houses has a pivotal role in the educational promotions and attainments of children in society. Thus, it is essential to evaluate the facilities available

for the promotion of education among tribal students under the Tribal Sub Plan. So, this section deals with the schooling options of tribal students, residential status of school-going children, and distance to the schools.

5.1.2.1 Schooling options of tribal students

The availability of the schools in the nearest locations of the houses, especially in the remote tribal areas, indicated the educational attainments and involvement of the government in the education sector. The various studies showed that the schooling facilities were available within 5 kilometres in Kerala in general.

Table 5.5: Schooling options of tribal students

Status of school	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
Government	21 (7)	28 (9.4)	39(12.7)	48 (16.1)	32 (10.7)	24 (8.1)	192 (64)
Aided	6 (2)	5 (1.7)	6 (2)	8 (2.7)	6 (2)	17 (5.7)	48 (16.2)
Self-finance	1 (0.3)	0 (0)	3 (1)	2 (0.7)	0 (0)	9 (3)	15 (5)
MRS	0 (0)	0 (0)	2 (0.7)	6 (2)	1 (0.3)	25 (8.4)	34 (11.5)
Others	0 (0)	1 (0.3)	2 (0.7)	1 (0.3)	0 (0)	6 (2)	10 (3.3)
Total	28 (9.4)	34 (11.4)	52 (17.1)	65 (21.8)	39 (13.1)	81 (27.2)	299 (100)

Source: Sample Survey Data

Table 5.5 explains the schooling options of tribal students. The majority (75.5 per cent) of them studied in the government schools, including the Model Residential Schools. A few students studied in self-finance schools with the support of some NGOs/Trusts who received

financial assistance from the government or any other external sources. It commonly functioned under the control of religious institutions. According to the Economic Review (2018-19), the school enrolment ratio of the tribal students was 2.02 per cent in the academic year 2018-19, and their proportion was in the government schools (3.8 per cent), private aided schools (1.54 per cent), and private unaided schools (0.46 per cent). It means only government interventions are more supportive of the promotions of tribal education than any other schooling facilities.

5.1.2.2 Residential status of the school going children

Better residential facilities can generate significant differences in the academic attainments of college-going/school-going students. In the case of tribal students, the Tribal Development Department started many MRS, pre-matric and post-matric hostels, for enhancement of tribal education. It might have provided better residential facilities to the students in hostels.

Table 5.6: Residential status of school going children

Staying facility	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
Home	28 (9.4)	25 (8.4)	47 (15.4)	56 (18.8)	38 (12.8)	36 (12.1)	230 (76.8)
Hostel	0 (0)	9 (3)	3 (1)	8 (2.7)	1 (0.3)	45 (15.1)	66 (22.1)
Others	0 (0)	0 (0)	2 (0.7)	1 (0.3)	0 (0)	0 (0)	3 (1)
Total	28 (9.4)	34 (11.4)	52 (17.1)	65 (21.8)	39 (13.1)	81 (27.2)	299 (100)

Source: Sample Survey Data

Table 5.6 illustrates the residential facilities of tribal students. The majority of tribal students stayed in their own houses, while some students resided pre-matric hostels/Model Residential Schools under the Tribal Development Department. The majority of students who stayed in the hostels belonged in the Irular community. In the residential schooling system, students receive everything at free of costs. None of the school-going students in the Malayarayar community resides in the hostels when compared to other tribal groups. It observed in the field survey that the students studying under the non-residential schooling system struggling with many issues, like poverty, lack of infrastructure facilities for studies, alcoholism of family members, illiteracy of parents, etc.

5.1.2.3 Distance between the house and schools in the tribal areas

In Kerala, the majority of tribal families live in highland areas, especially in isolated topography without adequate travelling facilities. It adversely affected the availability of school facilities in the nearest locations of their houses. We found the availability of school facilities in the closest areas of home strongly influences the academic performance of the students. Hence, the study tried to analyse the distance between the school and the houses of tribal families.

Table 5.7: Distance between the house and nearest schools

Distance (Km)	Communities						Total
	Malayarayar	Uruli	Kurichiyar	Paniyar	Eravaller	Irular	
Below 1	4 (1.7)	0 (0)	19 (8.2)	12 (5.2)	0 (0)	11 (4.7)	46 (19.7)
1-3	5 (2.1)	16 (6.9)	7 (3)	28 (12)	2 (0.9)	13 (5.6)	71 (30.5)
3-5	13 (5.6)	8 (3.4)	15 (6.4)	12 (5.2)	4 (1.7)	2 (0.9)	54 (23.2)
5-10	6 (2.5)	1 (0.4)	8 (3.4)	5 (2.1)	25 (10.7)	2 (0.9)	46 (20.1)
Above 10	0 (0)	0 (0)	0 (0)	0 (0)	7 (3)	8 (3.4)	15 (6.5)
Total	28 (11.9)	25 (10.7)	49 (21)	57 (24.5)	38 (16.3)	36 (15.5)	233 (100)

Source: Sample Survey Data

Table 5.7 explains the distance between the schools and houses of tribal students. Only 50 per cent of the tribal students availed school facilities within 3 kilometres. Moreover, except for the Eravaller and Irular communities in Palakkad district, the majority of tribal students in the other communities got school facilities within 5 kilometres. But, in the case of Eravaller community, the nearest government school was located more than 7 kilometres far from their houses. The tribal students mainly depended on private buses for travelling and others were walking. It is pertinent to note that the Gothrasarathi facilities of the Tribal Development Department supported the tribal students in the geographically isolated areas for reducing their travelling difficulties to the schools, especially in Wayanad and Attappady (See Appendix Table 18). It is worth mentioning

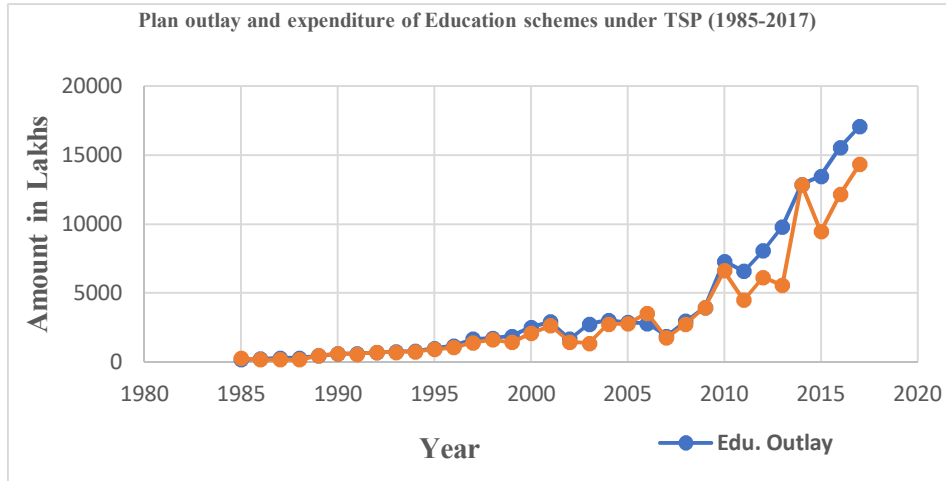
the majority of tribal areas had school facilities within the prescribed general norms. At the same time, in the isolated tribal regions did not have school facilities due to many reasons like desperate topography, lack of travelling facilities, etc. In this context, to overcome the difficulties of the studies of tribal children, the government should enhance for changing the traditional norms of education, through the conversion of the current Multi-Grade Learning Centre in the tribal areas into the LPS, even though the number of children is low.

5.1.3 Interventions of the government for the promotion of tribal education

The tribal development programmes under the Tribal Sub Plan has categorised into several sectors like education, health, livelihoods, housing, etc. Thus, the study tried to explain the interventions of the government in tribal education, such as the plan outlay and expenditure of the Tribal Sub Plan and the availability of educational assistance from the government.

5.1.3.1 Fund allocation of the tribal education under the TSP

The Union and State ministries provided funds for tribal education under the Tribal Sub Plan according to the provisions of the Annual Budget and the guidelines of TSP. Additionally, it included the plan and non-plan schemes in the education sector of tribal development programmes.



Source: Economic Review -various years, Reports on Plan Outlays and Expenditure, SPB, Kerala

Figure 5.2: Plan Outlay and Expenditure of the Tribal Sub Plan in the Tribal Education Sector (1985-2017)

Figure 5.2 depicts the plan outlay and expenditure of education schemes under TSP during the period 1985 to 2017. The total plan outlay for tribal education in the state was 1,304.8 crores, and the total expenditure was 1,078.75 crores. Moreover, there was a steady growth rate in the fund allocation for tribal education since 1989. The Tribal Development Department distributed funds to the State and District level programmes for the educational promotion of tribal communities. The state-level schemes were Ayyankali Memorial Scholarship, Supply of laptops, Running of MRS, pre-matric and post-matric hostels, etc. Likewise, the District Tribal Development Office implemented some schemes like Gothrasarathi, Supply of books, bags, etc. In the case of LSGIs, the budget provisions for tribal education varied from one Panchayath to another Panchayath. However,

generally, they allocated funds for purchasing laptops, bags, tables and chairs, etc. for the tribal students in the Grama Panchayath.

5.1.3.2 Availability of government assistance for the education of tribal students

When compared to other states in India, the government of Kerala has been providing significant amounts of financial aids to the tribal students under the Tribal Sub Plan like stipends and grants, food, textbooks, free accommodation, etc. Moreover, they opened Pre-matric and Post-matric hostels, Multi-Grade Learning System and Model Residential Schools in the tribal areas, etc. for determining solutions for the educational issues of tribal students to a certain extent.

Table 5.8: Availability of educational assistance from the government

Availability of edu. assistance	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
No	2 (0.4)	1 (0.2)	5 (0.9)	2 (0.4)	1 (0.2)	6 (1.1)	17 (3.2)
Yes	44 (8.3)	35 (6.6)	61(11.5)	64 (6.6)	41 (7.7)	86 (16.2)	331(62.2)
NA	41 (7.7)	13 (2.4)	21 (3.9)	43 (8.1)	20 (3.8)	46 (8.6)	184 (34.6)
Total	87 (16.4)	49 (9.2)	87(16.4)	109 (20.5)	62 (11.7)	138 (25.9)	532 (100)

Source: Sample Survey Data

$\chi^2=16.216$; $df=10$, $p=0.094$, $p>0.05$

Table 5.8 elucidates the educational assistance getting from the government. The majority of tribal students received several supports from the government for enhancing their academic capabilities. The

families who have only dropout students and the families who did not have students were categorised into the Not Applicable group. The Chi-Square test revealed there was no association between the availability of educational assistance and the category of tribal communities at 5 per cent significant level when $\chi^2 = 16.216$, at $P = 0.094$.

Table 5.9: Availability of additional education assistance other than state plan

Availability of add. Assistance	Communities						Total
	Malayarayar	Uruli	Kuri chyar	Paniyar	Eravaller	Irular	
No	38 (11)	25 (7.3)	44(12.8)	50 (14.5)	40 (11.6)	82 (23.8)	279 (81.1)
Yes	7 (2)	11 (3.2)	21 (6.1)	16 (4.7)	2 (0.6)	8 (2.3)	65 (18.9)
Total	45 (13.1)	36(10.5)	65(18.9)	66 (19.2)	42 (12.2)	90 (26.2)	344 (100)

Source: Sample Survey Data

Table 5.9 explains the additional academic assistance of tribal students. Along with the state-level programme, the District Tribal Development Departments and LSGIs have distributed supplementary educational aid to tribal students as part of their annual budget provisions. The data showed the majority of tribal students did not receive additional benefits.

Briefly, educational empowerment is one of the principal tools for the capability formation of disadvantaged societies. Therefore, the government has been intensively intervening the capability formation of

the marginalised population, through the efficient executions of various schemes in the tribal education sector. The overall scenario of tribal education indicated the interventions of the government helped the universalisation of tribal education up to the higher secondary level to a large extent by the ways of opening Model Residential Schools, Multi-Grade Learning Centres in remote places, and Pre-matric and post-matric hostels for tribal students in the state. It helped to reduce the drop-out rates of school-going children to a certain extent, except among deprived tribal groups. However, in higher education courses, the proportion of tribal students was comparatively low. But it is worth mentioning the educational status of the Irualr community was almost similar to the progressive tribal groups like Malayarayar and Kurichyar. It was the outcome of intensive interventions and the keen attention of the networks of the government systems in Attappady.

The constancy of the pre-school system is one of the fundamental requirements for the academic attainments of children. But comparatively, it was not effective in tribal regions. Despite the decline in the dropout rate among school-going students in the state, the educational statistics reveal the dropout rates among tribal students are still active, especially among disadvantaged communities such as the Paniyar and the Eravaller. It will negatively impact the educational potential of aboriginals. Therefore, the government should formulate specific contextualized efforts rather than the generic approach for education in addressing the dropout and inconsistency issues of tribal students. Also, it is necessary to implement innovative strategies for persuading tribal students to schools by the ways of enforcing tribal friendly schools and encouraging more community

involvement. The LSGIs are equally responsible for improving the educational attainments of students in their jurisdiction. Thus, through the convergence of the activities of the Tribal Development Department, Education Department and LSGIs, a revolution can make in the tribal education sector, by solving the grassroots level issues promoting dropouts among tribal students.

5.2 The Institutional Network of Government Departments and the Attainments in the Tribal Health Sector

Last few years, the tribal health sector moved forward in the advancement of the health status of tribal members in Kerala because of the intensive intervention of the institutional network of various government departments like the Tribal Development Department, Health Department, Social Security Department, LSGIs, etc. even though some drawbacks in certain areas. They have been implementing many health schemes for tribal members and opened many hospitals in the tribal areas. However, the increasing rate of sickle cell anaemia, infant mortality death, the decreasing trend in the child sex ratio of 0-6 age groups, etc. indicates some gaps in the health services of tribal areas. In this context, the study tried to understand the availability of essential medical services and social security measures in the tribal areas. It predominantly focused on the availability of nearest hospital facilities, services from para-medical workers, facilities of social security services, etc.

The study found that the majority of tribal families depended on the nearest PHCs for a primary medical check-up (Table 5.10), and they received comparatively better medical assistance from the paramedical

workers of the Health Department (Table 5.11 and 5.12). But, some tribal families hesitated to participate in monthly medical check-up of PHCs in the tribal areas (Table 5.13). Moreover, nearly half of the tribal families did not receive any assistance from the Anganwadi due to the service criteria (Table 5.14). However, the majority of tribal families have received food from the PDS (Table 5.15). The general trend in the financial distribution of the tribal health sector indicated the gradual increases in the fund allocation (Figure 5.3).

5.2.1 Availability of medical services in the tribal regions

The accessibility of proper medical services in the nearest locations of the house improves the health status of individuals. The medical services in Kerala are comparatively better and more appreciated in all over the country. In the case of high-land regions, the previous studies and statistical reports showed that the availability of hospital facilities in tribal areas and services of para-medical workers under the Health Department had made notable changes in the health status of tribal communities, particularly among deprived communities. Thus, in this section, the study tried to analyse the hospital facilities available in the tribal areas, services getting from the para-medical workers, and medical check-up facilities in the tribal areas.

5.2.1.1 Nearest government hospital in the tribal areas

In Kerala, when compared to plain lands, hospital facilities are scarce in the hilly regions, particularly the availability of super speciality hospitals in the government sector. It has affected the availability of the

detailed medical check-up for critical hospital cases. In such situations, patients depend on the medical colleges/private speciality hospitals in the neighbouring districts. Moreover, in the case of tribal communities, the lack of access to extensive medical examinations in their areas causes a lot of financial burdens on the tribal families. Therefore, it is essential to know about the nearest health care system in the tribal hamlets.

Table 5.10: Nearest government hospital in the tribal areas

Nearest govt. hospital	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
PHC	69 (18.5)	34 (9.1)	60 (16.1)	14 (3.8)	45 (12.1)	94 (25.3)	316 (84.9)
TH	0 (0)	0 (0)	0 (0)	47 (12.6)	0 (0)	0 (0)	47 (12.6)
DH	0 (0)	0 (0)	2 (0.5)	7 (1.9)	0 (0)	0 (0)	9 (2.4)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 5.10 points out the availability of the nearest government hospitals in the tribal hamlets. The majority of tribal families depended on Primary Health Centres for primary check-ups, and its services were available within 7 kilometres in their hamlets (see Appendix Table 24). Correspondingly, the remaining tribal families opted for Taluk or District Hospitals (THS & DH) for check-ups. However, because of the limited infrastructure facilities, the majority of tribal families preferred the Medical Colleges or District hospitals for treatments in critical stages. But

in the case of Wayanad district, the nearest Medical College is situated in the neighbour district, Kozhikkod. Due to the financial crisis, the majority of tribal patients hesitate to go for advanced treatment.

When compared to other tribal communities, the Paniyar communities received comparatively more quality medical services from the Taluk Hospital at Panamaram Town. Likewise, in Attappady, the Tribal Development Department has established a Tribal Super Specialty Hospital. Nothing but, the majority of Irular families were depended on the government hospital at Thavalam or Vivekananda private hospital due to abusive and careless approaches of doctors and other staffs in the Kottathara Hospital. The Malayarayar and Urali communities depended on the nearest PHC for primary check-ups and also preferred the General hospital in Thodupuzha in the severe cases.

5.2.1.2 Assistance getting from the Health workers

The Tribal Development Department and Health Department work together for the protection and promotion of the health status of the tribal population in the state with the support of the para-medical system. The health workers are para-medical staffs who conduct regular medical check-ups in tribal hamlets and distribute medicines to the bedded patients and the tribal members who suffer a critical illness like Sickle Cell Anaemia, Cancer, etc. Health Workers have a pivotal role in enhancing the health status of tribal members. Hence, it is essential to understand the service availability of health workers in the tribal areas.

Table 5.11: Assistance getting from the Health Workers

Services from HW	Communities						Total
	Malayarayar	Urali	Kurihyar	Paniyar	Eravaller	Irular	
No	20 (5.4)	15 (4)	24(6.5)	3 (0.8)	13 (3.5)	5 (1.3)	80 (21.5)
Yes	49 (13.1)	18 (4.8)	38(10.2)	65(17.5)	10 (2.7)	89 (24)	269(72.3)
Not Resp.	0 (0)	1 (0.3)	0 (0)	0 (0)	22 (5.9)	0 (0)	23 (6.2)
Total	69 (18.5)	34 (9.1)	62(16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 5.11 indicates the medical assistances of Health Workers in the tribal areas. The majority of tribal families received services from the health workers, especially in the monthly medical check-ups. Moreover, they supplied medicines in the tribal hamlets for precautions of contagious diseases and also assisted palliative care. But, the families in some tribal locations did not receive adequate services from health workers, especially among Eravaller and Urali communities, due to the geographical isolation and topography of Urali families and the segregated nature of Eravaller hamlets.

5.2.1.3 Assistance getting from the ASHA worker

The Health Department appointed Accredited Social Health Activists (ASHA) as part of the National Health Mission Programmes. They also assigned in tribal areas for enhancing the health activities among the tribal families along with Health Workers in the PHCs. They are part of the para-medical service system in the tribal regions, act as

intermediaries between tribal households and various government institutions. The ASHA workers have many responsibilities like house visits, preparation of health profiles of family members, sharing health information, give support to the pregnant ladies and chronically diseased patients, etc.

Table 5.12: Services getting from the ASHA worker

Services from ASHA	Communities						Total
	Malayarayar	Urali	Kuri chyar	Paniyar	Eravaller	Irular	
No	19 (5.1)	14 (3.8)	9 (2.4)	1 (0.3)	3 (0.8)	24 (6.5)	70 (18.8)
Yes	50 (13.4)	18 (4.8)	53 (14.3)	67 (18)	20 (5.4)	69 (18.5)	277 (74.5)
Not Resp.	0 (0)	2 (0.5)	0 (0)	0 (0)	22 (5.9)	1 (0.3)	25 (6.7)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 5.12 describes the availability of services from ASHA workers. It showed most of the tribal families received assistance from the ASHA workers by the ways of conveying information about health services, providing pregnancy care, delivering support to take vaccination to the children, etc. They showed better performance among Paniyar and Kurichyar communities in Wayanad district. But some families in other tribal groups did not receive any assistance from ASHA workers, especially Eravaller and Urali families.

5.2.1.4 Participation of tribal members in the Medical Check-up

The monthly medical check-up of tribal members is a joint scheme of the Tribal Development Department and Health Department in the state. It commonly conducts in the nearest Anganwadi of tribal hamlets with the support of a medical team in the nearest government hospital, such as a Doctor, a Health Worker, and a Nurse.

Table 5.13: Participating regular medical check-up

Attend M.C	Communities						Total
	Malayarayar	Urali	Kuri chyar	Paniyar	Eravaller	Irular	
No	5 (1.4)	1 (0.3)	5 (1.4)	3 (0.8)	37 (10.1)	24 (6.5)	75 (20.4)
Yes	64 (17.4)	33 (9)	57(15.5)	65 (17.7)	5 (1.4)	69 (18.8)	293 (79.6)
Total	69 (18.8)	34 (9.2)	62 (16.8)	68 (18.5)	42 (11.4)	93 (25.3)	368 (100)

Source: Sample Survey Data

Table 5.13 elucidates the participation of tribal households in the medical check-up. The majority of tribal families participated in the monthly medical check-up facilities in the Anganavadi. But some families, especially Eravaller and Irular families in Palakkad district did not participate in the monthly medical check-up due to lack of information, believes in traditional medicines, etc. The lack of availability of health service information exhibits the inefficiency of sources of information like Promoters, ASHA workers, etc. in the tribal areas of Palakkad district.

5.2.2 Accessibility of social security services in the tribal areas

Social security measures principally target the welfare of socially and economically deprived families in the country. It commonly targets the household level services in distributive nature. Hence, the study tried to understand the availability of services from the Anganwadi and PDS in the tribal areas.

5.2.2.1 Availability of services from the Anganavadi

Like the Tribal Development Department and Health Department, the Integrated Child Development Scheme performs a pivotal role in the welfare of tribal communities. Through Anganavadi services, ICDS provides health care facilities, like the supply of nutritious food to children up to six years, adolescence, pregnant ladies and feeding mothers, and conducting health awareness classes to the adolescent girls, mothers, etc. in the tribal families.

Table 5.14: Services getting from the Anganavadi

Avail Anganavadi services	Communities						Total
	Malayarayar	Urali	Kuri chyar	Paniyar	Eravaller	Irular	
No	54 (14.5)	27 (7.3)	21 (5.6)	21 (5.6)	22 (5.9)	17 (4.6)	162 (43.5)
Yes	15 (4)	7 (1.9)	41 (11)	47 (12.6)	23 (6.2)	77 (20.7)	210 (56.5)
Total	69 (18.5)	34 (9.1)	62(16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372(100)

Source: Sample Survey Data

Table 5.14 explains the availability of Anganwadi services in tribal areas. It described only half of the tribal families received at least one service from the Anganwadi. The other families did not receive any assistance

because of beyond the criteria of Anganwadi services. Ordinarily, their services target the people who require more care and support for the protection of health like babies, small children, adolescents' girls, pregnant ladies, etc.

5.2.2.2 Availability of services from the Public Distribution System

There is a significant relationship between the Public Distribution System and food security in the country. It tries to reduce the food scarcity among people in the country by providing food items at the minimal price/free according to the categories of ration card.

Table 5.15: Purchase food items from Ration shop

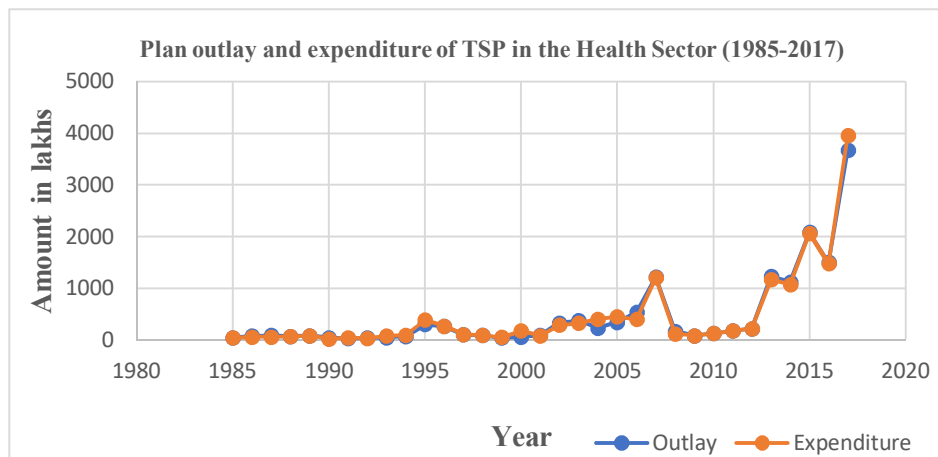
Purchase from PDS	Communities						Total
	Malayarayar	Uruli	Kurichyar	Pamiyar	Eravaller	Irular	
No	10 (2.7)	0 (0)	4 (1.1)	11 (3)	5 (1.3)	6 (1.6)	36 (9.7)
Yes	59 (15.9)	34 (9.1)	58 (15.6)	57 (15.3)	40 (10.8)	88 (23.7)	336 (90.3)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 5.15 explains the availability of services from the Public Distribution System. The majority of tribal families received services from ration shops within 4 kilometres from tribal hamlets. But some families did not get the food assistance from the Public Distribution System due to lack of ration card. In general, the majority of tribal families satisfied with the services of PDS, except the Eravaller families who received the low quality and quantity rice that lower than the allowed measure of the ration card.

5.2.3 The Distribution of TSP fund in the tribal health sector

The tribal health sector requires more attention when compared to other schemes under the Tribal Sub Plan. Because of the remoteness of the tribal hamlets and lack of travelling facilities, the para-workers in the Health Department not able to reach the tribal hamlets regularly. Moreover, in the critical stage, they confront many issues in the absence of advanced health facilities. However, the Tribal Development Department and Health Department have been jointly providing health services to the tribal areas under various government schemes along with the Tribal Sub Plan such as conducting a monthly medical check-up in the tribal hamlets with the support of concerned PHC, the opening of Mobile medical unit, appointing promoters in the medical colleges for supporting tribal patients, treatment assistance for severe health issues, etc.



Source: *Economic Review -various years, Reports on Plan Outlays and Expenditure, SPB, Kerala*

Figure 5.3: The Plan Outlay and Expenditure of Health Schemes under the Tribal Sub Plan (1985-2017)

Figure 5.3 explains the Plan Outlay and Expenditure of health schemes under the Tribal Sub Plan during the period 1985-2017. The total plan outlay of tribal health sector in the state was 149.14 Crores, and the expenditure was 152.07 Crores. It indicated a steady move in the fund allocation during the period 1985-94. And there was a marginal increase in the fund allocation in 1995, and again it moved downward up to 2001. Later, there was a zig-zag move in the budget allocation. However, there was a sudden increase in fund allocation since 2012.

In precis, the overall analysis of the study found that the services of the para-medical workers, Anganwadies, and PDS were comparatively better in the tribal areas except for some tribal regions of Eravaller and Irular communities in Palakkad district. It is worth mentioning that the performance of para-medical workers and social security measures were not much satisfactory in the segregated tribal regions of the Eravaller community in Muthalamada. It indicates the need to swing more emphasis to the tribes in the non-tribal area while providing the health services. Moreover, the absence of specialised hospitals in the tribal regions adversely affected their treatment at critical stages.

5.3 Tribal Sub Plan and the Livelihood Attainments of the Tribal Families

Before the inland-migration of non-tribes to the tribal regions, the tribal workforce primarily engaged cultivation in their land. Gradually, the agriculture lands of aboriginals were encroached by the immigrants, and consequently, the proportion of tribal cultivators being reduced, and their social status being changed from cultivators to agriculture labours

(Kunhaman, 1989). There were many external and internal factors such as land encroachment of settlers, landlessness, changes from tribal economy to the cash economy, the appointment of tribes to various projects as labour in the lowest wage rate, conversion of forest land to protected land, lack of availability and low prices of forest-produces, etc. adversely affected the traditional employment pattern of tribal communities and gradually the tribal workforce attracted to the wage-labouring (KFRI, 1991). According to Census 2011, the Work Participation Rate (WPR) of tribal communities in Kerala was 47.5 per cent, while the WPR of the general population was 31.4 per cent. Moreover, the proportion of main workers among tribal communities in the state reduced within two decades, from 40.28 per cent in 1991 to 33.29 per cent in 2011. But, the ratio of marginal workers increased among the tribal communities from 5.76 per cent (1991) to 14.2 per cent (2011). Moreover, the proportion of tribal cultivators reduced from 16.7 per cent (1991) to 12.94 per cent (2011) within two decades while the proportion of agriculture labours among the tribal communities increased from 55.5 per (1991) to 59.49 per cent (2011). The negative occupational mobilities and employment transformations of tribal members indicate the uncertainties in employments and economic instabilities, formed within two decades among tribal families. Hence, the study tried to find out the current employment status of tribal members, government initiatives for the promotion of livelihood options among tribal communities, intercommunity disparities in the occupations, and diversification of job opportunities in tribal areas.

The study found the job diversifications among the tribal members were comparatively low (Table 5.18 & 5.19), and the majority of

progressive and moderate tribal families engaged in both primary and subsidiary occupations (Table 5.16). But, the majority of working-class members in the deprived communities were wage-labours (Table 5.22), and they worked at low wage rates (Table 5.23). Even though the work participation rate of deprived tribal families was higher (Table 5.17), it did not make any qualitative changes in their socio-economic status (Table 5.29a, 29b & 29c) and social capital formation (Table 5.28a, 28b & 28c). Except for deprived tribal families, the majority of tribal families engaged cultivation in their lands (Table 5.20) and promoted cash-crop cultivations (Table 5.21) rather than traditional cultivation of tribal communities. Moreover, when compared to deprived communities, most of the landholding families in the progressive and moderate tribal families received long-term livelihood assistance from the government (Table 5.24 & 5.25).

5.3.1 Employment profile of the tribal communities

The macro-level data of the employment scenario in Kerala indicated the state had transformed from the agrarian society to the non-agrarian market. However, the employment statistics of the tribal households reveals that the majority of tribal work-force depended on the agriculture sector as cultivators or agriculture labours. It is contrary to the general trend of Kerala society. In this context, the study tried to comprehend the nature of the occupation of tribal population, the number of working members in a house, various sources of income, and the availability of government jobs.

5.3.1.1 Nature of Occupation

The deprivation rate, financial insecurities, and the educational qualifications of family members decide the employment status of the

individuals. Moreover, technical skills also promote the attainment of better job opportunities. In such a situation, the capability acts as a tool for getting more job opportunities. Hence, the study analyses the job options among tribal communities.

Table 5.16: Nature of Occupations

Nature of Occupation	Communities						Total
	Malayarayar	Uruli	Kuri chyar	Paniyar	Eravaller	Irular	
Major Occupation	25 (6.8)	12 (3.2)	1(0.3)	60 (16.2)	41 (11.1)	19 (5.1)	158 (42.6)
Subsidiary Occupations	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Both	44 (11.9)	22 (5.9)	61 (16.4)	8 (2.2)	3 (0.8)	75 (20.2)	213 (57.4)
Total	69 (18.6)	34 (9.2)	62 (16.7)	68 (18.3)	44 (11.9)	94 (25.3)	371 (100)

Source: Sample Survey Data

Table 5.16 elucidates the job options of tribal members. The data reveals more than 50 per cent of the tribal families preferred both primary and subsidiary occupations, while others selected major jobs only. The majority of progressive and moderate tribal families engaged in the principal and subsidiary occupations, and they enjoyed more economic freedom because of received multiple sources of income from various jobs. But, the majority of Paniyar and Eravaller families engaged only the principal employment, and their income from labouring was insufficient for making economic stability of the family. It was the outcomes of the absence of agriculture land among the deprived tribal groups for cultivation

or other allied activities. It reveals that the fundamental structural issues like landlessness among the Paniyar and Eravaller families act as a hurdle in the future socio-economic mobilisation of these families.

Table 5.17: Number of working members in the tribal families

No. of working members	Communities						Total
	Malayarayar	Uruli	Kuri chyar	Paniyar	Eravaller	Irular	
Not wrkg	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.3)	0 (0)	1 (0.3)
One	32 (8.6)	7 (1.9)	7 (1.9)	9 (2.4)	14 (3.8)	10 (2.7)	79 (21.2)
Two	32 (8.6)	18 (4.8)	28 (7.5)	30 (8.1)	18 (4.8)	57 (15.3)	183 (49.2)
Three	5 (1.3)	6 (1.6)	19 (5.1)	14 (3.8)	8 (2.2)	23 (6.2)	75 (20.2)
Four	0 (0)	3 (0.8)	7 (1.9)	12 (3.2)	2 (0.5)	3 (0.8)	27 (7.3)
Five	0 (0)	0 (0)	1 (0.3)	0 (0)	2 (0.5)	0 (0)	3 (0.8)
Six	0 (0)	0 (0)	0 (0)	3 (0.8)	0 (0)	1 (0.3)	4 (1.1)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 5.17 explains the number of working members of tribal families. The majority of the tribal families had at least two working members, except some families. Even though the number of working members was relatively significant in some families, the benefit was not reflected in the financial status of the tribal families, especially in the case of Paniyar and Eravaller communities. We identified it was the outcomes of the inconsistency in the availability of jobs, the nature of works, and low wage rates of labouring work.

5.3.1.2 Sources of income of the tribal households

The socio-economic status of households principally depends on the employment status of the family members. But the employment status is the outcomes of the educational qualifications, the topography of housing lands, availability of infrastructure facilities, etc. In the case of tribal communities, they primarily concentrate on the high-range areas of the state. Comparatively, high-profile job opportunities are lesser in these areas due to the topography and geographical isolation of the districts. Consequently, the majority of families engaged in agriculture and allied activities because of the availability of sizable amounts of agri-lands in the hilly areas. It was also reflected in the lives of tribal members.

Table 5.18: Sources of income of the tribal households

Sources of income	Communities						Total
	Malayarayar	Uruli	Kuri chyar	Paniyar	Eravaller	Irular	
Govt. job	22 (2.1)	2 (0.2)	17 (1.6)	5 (0.5)	5 (0.5)	14 (1.4)	65 (6.3)
Private job	4 (0.4)	0 (0)	3 (0.3)	0 (0)	4 (0.4)	6 (0.6)	17 (1.6)
Cultivation	65 (6.3)	28 (2.7)	58 (5.6)	9 (0.9)	1 (0.1)	54 (5.2)	215 (20.8)
Labour	21 (2)	28 (2.7)	57 (5.5)	118 (11.4)	64 (6.2)	101 (9.8)	389 (37.7)
Self-employment	18 (1.7)	3 (0.3)	28 (2.7)	2 (0.2)	16 (1.5)	24 (2.3)	91 (8.8)
MGNREGA	17 (1.6)	15 (1.5)	42 (4.1)	50 (4.8)	6 (0.6)	108 (10.5)	238 (23)
Others	3 (0.3)	0 (0)	11 (1.1)	0 (0)	3 (0.3)	1 (0.1)	18 (1.7)
Total	150 (14.5)	76 (7.4)	216 (20.9)	184 (17.8)	99 (9.6)	308 (29.8)	1033 (100)

Source: Sample Survey Data

Table 5.18 displays the various sources of income of the tribal households. It indicated low job-diversification in the tribal regions. The data showed that nearly 50 per cent of the tribal members were wage labours who engaged in agriculture labouring/MGNREGA. In Attappady, most of the Irular families worked in MGNREGA schemes because of getting 200 working days under the special packages. The second job options of the tribal members were farming, except the deprived tribal groups like Paniyar and Eravaller communities due to lack of agriculture lands. It is a fact that there were community-wise differences in the cultivators and labours as well as landholding people and landless people. The comprehensive information about the employment status of tribal families indicated there was a higher relationship between the employment status and land ownership of tribal communities, and it has made higher implications in the intergenerational mobility of tribal communities.

5.3.1.3 Nature of jobs in the government sector

Conventionally, the jobs in the government sector consider as a status symbol in the society. Moreover, when compared to other jobs, it provides more financial security and economic freedom. Thus, the study categorised the status of the government jobs into the permanent, temporary, and contract staffs for the micro-level evaluation for comprehending the differences in the proportion of government staffs in various tribal communities.

Table 5.19: Nature of jobs in the government sector

Nature of Govt. Job	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Permanent	13 (20)	0 (0)	8 (12.3)	2 (3.1)	4 (6.2)	4 (6.2)	31 (47.7)
Temporary	4 (6.2)	1 (1.5)	0 (0)	0 (0)	0 (0)	3 (4.6)	8 (12.3)
Contract	5 (7.7)	1 (1.5)	9 (13.8)	3 (4.6)	1 (1.5)	7 (10.8)	26 (40)
Total	22 (33.8)	2 (3.1)	17 (26.2)	5 (7.7)	5 (7.7)	14 (21.5)	65 (100)

Source: Sample Survey Data

Table 5.19 explains the nature of government jobs of tribal members. Nearly 50 per cent of the tribal members got permanent jobs while others joined for temporary/contract jobs in the government sector. The Urali community showed the lowest participation rate in government jobs when Malayarayar, Kurichyar, and Irular showed comparatively better proportion in the government jobs. Even though the Eravaller community was a deprived tribal group, their five members were permanent staff in various government departments. It was the result of educational attainments, interaction with the public, and self-motivation of those individuals. It reveals the need for obtaining social capital for the overall progressiveness of tribal communities. Also, the representation of the Irular community in the government job indicated the outcomes of the intensive job orientation programmes done in Attappady under government initiatives. Besides, the Tribal Development Department

provides some on-the-job training to the educated tribal members on contract-based as an office assistant. It primarily aimed for the skill development of tribal youth and getting work experiences in the government sector. The majority of the contract/temporary staff worked as promoters/drivers/office assistants, etc. The employment status of the tribal communities reveals that the government reservations policies functioned only based on the opportunistic equity than the realistic equity. It adversely impacted the deprived tribal communities in the failure of exploring the potentials of the reservation system in government jobs. Thus, the study emphasises the necessity of making some changes in the current reservation policies of employment based on the deprivation status of tribal families.

5.3.1.4 Nature of ownership on the agriculture land of tribal farmers

The ownership of a sizable amount of land is one of the primary indicators of the economic status of the households. In the case of tribal communities, there is a significant relationship between the land and the lives of tribal members. The study already found that the significant disparities between the tribal communities in land ownership. Moreover, it indicated the disparities between the progressive and deprived tribal groups in the employment status.

Table 5.20: Nature of ownership on the agriculture lands of tribal farmers

Ownership of cultivable land	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Owned	63 (29.3)	27 (12.6)	49 (22.8)	4 (1.9)	1 (0.5)	52 (24.2)	196 (91.2)
Lease	0 (0)	0 (0)	1 (0.5)	3 (1.4)	0 (0)	0 (0)	4 (1.9)
Share	0 (0)	0 (0)	0 (0)	1 (0.5)	0 (0)	0 (0)	1 (0.5)
Own&Lease	1 (0.5)	1 (0.5)	3 (1.4)	1 (0.5)	0 (0)	2 (0.9)	8 (3.7)
Own&Share	0 (0)	0 (0)	6 (2.8)	0 (0)	0 (0)	0 (0)	6 (2.8)
Total	64 (29.8)	28 (13)	59 (27.4)	9 (4.2)	1 (0.5)	54 (25.1)	215 (100)

Source: Sample Survey Data

Table 5.20 indicates the ownership of agri-lands. It revealed the majority of tribal farmers cultivating in their lands. But because of the lack of agri-lands, a few Paniyar families were farming in leased/shared farming lands. Consequently, the Paniyar farmers received comparatively meagre income from cultivation when compared to farmers cultivated in their land.

5.3.1.5 Cropping patterns in the tribal areas

It observed there were many internal and external factors influencing the selection of cropping patterns in the tribal areas such as the location and climate of agriculture land, influence of immigrant farmers, market demands of the agriculture products, nature of the soil and water availability, financial status of the families, influence from immigrant farmers, etc.

Table 5.21: Cropping patterns in the tribal areas

Cropping Patterns	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
Cash Crops	55 (25.6)	20 (9.3)	21 (9.8)	4 (1.9)	0 (0)	9 (4.2)	109 (50.7)
Traditional Crops	0 (0)	0 (0)	0 (0)	1 (0.5)	0 (0)	3 (1.4)	4 (1.9)
Non-traditional crops	0 (0)	0 (0)	0 (0)	1 (0.5)	1 (0.5)	7 (3.3)	9 (4.2)
Cash Crops & Traditional Crops	0 (0)	1 (0.5)	4 (1.9)	0(0)	0(0)	2 (0.9)	7 (3.3)
Cash Crops & Non-traditional crops	7 (3.3)	5 (2.3)	5 (2.3)	0(0)	0(0)	7 (3.3)	24 (11.2)
Traditional Crops & Non-traditional crops	0 (0)	0 (0)	0 (0)	3 (1.4)	0(0)	11 (5.1)	14 (6.5)
All	2 (0.9)	2 (0.9)	29 (13.5)	0 (0)	0 (0)	15 (7)	48 (22.3)
Total	64 (29.8)	28 (13)	59 (27.4)	9 (4.2)	1 (0.5)	54 (25.1)	215 (100)

Source: Sample Survey Data

Table 5.21 elucidates various cropping patterns in the tribal areas. The majority of tribal cultivators primarily engaged in cash crop cultivation like Rubber, Cocoa, Pepper, Coffee, etc. (See Appendix Table 25). But some Kurichyar and Irular families cultivated traditional crops like Dhal gram, Millet, Rice, and Tubers (See Appendix Table 26). When compared to the cultivation of the conventional plants, the tribal farmers obtained more income from cash crop cultivation. Moreover, it induced immense changes in the socio-economic transformation of tribal families, especially the Malayarayar community. During 1980, with the support of

TDF programmes, the Rubber Board started rubber plantation in the tribal areas in all over the state. Accordingly, the Malayarayar and Urali families engaged in Rubber cultivation. It provided long-term sustainable livelihood assistance to the Malayarayar families than Urali families due to the topography and productivity of their lands. Consequently, it promoted the socio-economic and educational status of Malayarayar families. Additionally, we noticed that the Kurichyar and Irular families only received nominal income from the seasonal cash crop cultivation when Malayarayar received stable income from Rubber cultivation.

5.3.2 Work profile of tribal labours

The higher proportion of wage labours in a society indicates the low socio-economic and educational status of its members. In the case of tribal societies, it is a fact that the majority of tribal families lived under the Below Poverty Line. Moreover, the majority of tribal work-force were engaged in wage-labouring because of poor educational status, lack of agri-land availability, lack of knowledge in skilled labouring, etc. Hence, in this section, we tried to assess the work profile of tribal communities, such as the workplaces of tribal labours, nature of works, wage rate and the inequality in the wage distribution.

5.3.2.1 Workplaces of tribal labours

The aboriginals predominantly live in hilly areas, and its topography has significantly influenced the job diversification in tribal areas. Because of the availability of agriculture lands, the majority of residents primarily depend on agriculture and allied activities as

livelihood options. Consequently, the majority of tribal work-force engage in agriculture labouring.

Table 5.22: Workplaces of tribal labours

Workplaces of labours	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Plantation	1 (0.3)	0 (0)	17 (4.4)	1 (0.3)	0 (0)	0 (0)	19 (4.9)
Construction	5 (1.3)	8 (2.1)	12 (3.1)	16 (4.1)	9 (2.3)	10 (2.6)	60 (15.4)
Agriculture	13 (3.3)	17 (4.4)	26 (6.7)	89 (22.9)	28 (7.2)	89 (22.9)	262 (67.4)
Land owners	0 (0)	0 (0)	1 (0.3)	6 (1.5)	14 (3.6)	0 (0)	21 (5.4)
Others	2 (0.5)	3 (0.8)	1 (0.3)	6 (1.5)	13 (3.3)	2 (0.5)	27 (6.9)
Total	21 (5.4)	28 (7.2)	57(14.7)	118(30.3)	64(16.5)	101 (26)	389 (100)

Source: Sample Survey Data

Table 5.22 explains the workplaces of tribal labours. The majority of tribal work-force primarily engaged in agriculture jobs, especially in tea plantations, in private agriculture farms, temporary works in agriculture lands in nearest locations, etc. The plantation workers, particularly Kurichyar community, were permanent/contract staffs and received guaranteed monthly income when compared to other agriculture labours. When compared to the normal wage rate of casual agriculture job, the workers in the private agriculture farms, especially Eravaller community, received only low wage rate due to getting regular jobs monthly. The over-dependency of agriculture labouring of a community showed financial insecurities and economic deprivation of families,

especially in the case of deprived tribal communities like Paniyar and Eravaller. They primarily engaged in casual agriculture labours with irregular days due to lack of work availability.

5.3.2.2 Wage rates of tribal labours

The wage rate of labouring works varies according to the nature of jobs and the skill of the workers. Moreover, the geographical factors act as a pivotal role in the fixation of the wage rate. The surveyed tribal families were lived in distinctive regions of three districts in Kerala, and also their wage rate was different. Therefore, the study tried to find out the intercommunity disparities between the tribal communities in the wage rate of workers.

Table 5.23: Wage rates of tribal labours

Wage per Day	Communities						Total
	Malayarayar	Uruli	Kuri chyar	Paniyar	Eravaller	Irular	
Below 200	0 (0)	0 (0)	1 (0.3)	3 (0.8)	13 (3.3)	3 (0.8)	20 (5.1)
201-300	0 (0)	2 (0.5)	1 (0.3)	29 (7.5)	11 (2.8)	25 (6.4)	68 (17.5)
301-400	1 (0.3)	10 (2.6)	3 (0.8)	29 (7.5)	22 (5.7)	0 (0)	65 (16.7)
401-500	1 (0.3)	0 (0)	17 (4.4)	44 (11.3)	13 (3.3)	60 (15.4)	135(34.7)
501-600	17 (4.4)	13 (3.3)	8 (2.1)	9 (2.3)	2 (0.5)	8 (2.1)	57 (14.7)
Above 600	2 (0.5)	3 (0.8)	27 (6.9)	4 (1)	3 (0.8)	5 (1.3)	44 (11.3)
Total	21 (5.4)	28 (7.2)	57(14.7)	118(30.3)	64(16.5)	101 (26)	389 (100)

Source: Sample Survey Data

Table 5.23 elucidates the wage rate in tribal areas. It reveals the wage rates were different in each tribal area. Except for Idukki, the standard wage rates of agriculture labours in Wayanad and Palakkad were 401 to 500 rupees. In Idukki, it was 501 to 600 rupees among Malayarayar and Urali communities. But, among Eravaller families, the standard wage rates of agriculture labours were 301 to 400 rupees. Moreover, the female workers in the Eravaller community received the wages below 200 rupees only, i.e. 90 - 140 rupees, which was lower than the wage rate of the MGNREGA. Moreover, it noticed there were job diversifications in the wage rate among tribal labours within the communities, especially among Paniyar, Eravaller, and Irular communities. The field inferences reveal that the works in tribal areas categorised into male work (Ann Pani) and female work (Penn Pani). Consequently, there were notable differences in the wage rates between the male and female workers in the tribal communities.

Among six tribal communities, workers of the Eravaller community in Muthalamada received the lowest wage rate because of the lack of job opportunities, incursion and embeddedness of Tamil culture, segregated hamlet structure, and high caste discrimination in the localities. It adversely affected the negotiation potential of the tribal population. A resident in Muthalamada shared: *"I am agricultural labour. I have been working on a private agriculture farm. There I will get work for six days at a fixed wage rate of 300 rupees per day. My job will start in the early morning and end up in the evening. If I am temporary labour, I will get Rs. 350 to Rs. 450 rupees per day. But I will not get a stable income like this. I don't know any other works. The wage rate is low. But all are ready*

for doing work at a low wage rate due to lack of job opportunities. Mining destroyed everything."

In precis, agriculture is the primary self-reliant livelihood option of tribal communities. But the Census Data revealed that the proportion of tribal cultivators decreased, and at the same time, the number of tribal agriculture labours increased within two decades. The employment transition of tribal members indicated shifting of sources of sustainable livelihood options to the casual labouring. Such negative occupational transitions will be negatively impacted on income source, inter-generational mobility, and self-sustainability of tribal communities. Also, the study found the proportion of family members in each job varied based on the categories of tribal communities. Consequently, the permanent or sustainable income sources of tribal families vary, especially among disadvantaged tribal families. Moreover, it led them to vulnerabilities and marginal employment opportunities.

5.3.3 Distribution of livelihood assistance to the tribal households

The primary purpose of the implementation of livelihood programmes is to reduce the deprivation rate among tribal communities through long-term sustainable livelihood assistance. Accordingly, several government departments like LSGIs, Veterinary Department, Agriculture Department, NABARD, Rubber Board, etc. have been functioning in the tribal areas along with the Tribal Development Department for supporting the livelihood programmes of aboriginals.

5.3.3.1 Availability of livelihood assistance to the tribal households

The success of a livelihood programme primarily depends on the long-term sustainable assistance, selection of actual beneficiaries, nature of livelihood schemes, facilities for the choices of livelihood schemes, and the need of beneficiaries. In the case of the Scheduled Tribes, the socio-economic backwardness of the tribal communities indicated the inadequacy in the distribution of livelihood schemes in the tribal areas. Therefore, the study tried to find out whether the tribal families in all communities received livelihood assistance.

Table 5.24: Availability of livelihood assistance

Getting livelihood assistance	Communities						Total
	Malayarayar	Uruli	Kuri chyar	Paniyar	Eravaller	Irular	
No	11 (3)	6 (1.6)	19 (5.1)	27 (7.3)	41 (11)	86 (23.1)	190 (51.1)
Yes	58 (15.6)	28 (7.5)	43(11.6)	41 (11)	4 (1.1)	8 (2.2)	182 (48.9)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 5.24 elucidates the availability of livelihood assistance in the tribal areas. It showed 50 per cent of the tribal families did not get any livelihood assistance from the government, especially Eravaller and Irular communities in Palakkad. But, in the field survey, we identified that most of the Irular families received livelihood assistance from the special packages like NRLM, WADI, etc. in Attappady.

Table 5.25: Items availed under the livelihood programmes

Wage per Day	Communities						Total
	Malayarayar	Urali	Kuri chyar	Paniyar	Eravaller	Irular	
No assistance	11 (2.2)	6 (1.2)	19 (3.8)	27 (5.4)	41 (8.3)	86 (17.3)	190 (38.3)
Cattle	5 (1)	1 (0.2)	17 (3.4)	21 (4.2)	2 (0.4)	7 (1.4)	53 (10.7)
Domestic fowl	28 (5.6)	11 (2.2)	5 (1)	29 (5.8)	0 (0)	2 (0.4)	75 (15.1)
Sapling	82 (16.5)	38 (7.7)	44 (8.9)	0 (0)	0 (0)	0 (0)	164 (33.1)
Machineries	6 (1.2)	0 (0)	1 (0.2)	2 (0.4)	2 (0.4)	0 (0)	11 (2.2)
Others	0 (0)	0 (0)	2 (0.4)	0 (0)	0 (0)	1 (0.2)	3 (0.6)
Total	132(26.6)	56(11.3)	88(17.7)	79 (15.9)	45 (9.1)	96 (19.4)	496 (100)

Source: Sample Survey Data

Table 5.25 indicates the livelihood assistance received from various sources. It revealed a skewed distribution in the livelihood assistance among some tribal communities like Kurichyar, Malayarayar, and Urali. They repeatedly received the aid of livelihood assistance under similar schemes from various government authorities. It indicates the injustice of the distribution of livelihood assistance. Moreover, it was observed the short-term livelihood assistance did not make any monetary advantages in the lives of deprived tribal groups due to the limited lifespan of fowl, cattle, etc. when other communities received long-term sustainable livelihood assistance.

It observed in the field survey that the Local Governing Institutions were the major service providers of temporary livelihood assistance in tribal areas through the Tribal Sub Plan and Women Component Plan. The Tribal Development Department also promoted the long-term

livelihood programmes along with the short-term financial assistance through the fund allocation of TDF programmes for external agencies like Rubber Board. It induced extensive changes in the socio-economic lives of Malayarayar families, especially in the economic and educational status of the family members. Moreover, financial institutions like NABARD distributed financial aid to the tribal areas for their long-term livelihood assistance through the agriculture expansion, named as WADI. By providing long-term sustainable livelihood assistance to the tribal families, it aimed to enable a family to gain a sustainable income from agriculture. The Irular and Kurichyar communities were the beneficiaries of WADI projects in Palakkad and Wayanad districts, respectively. The effectiveness of the programmes depends upon the implementation agencies of NABARD.

Conventionally, the livelihood assistance of tribal communities has been dividing into short-term and long-term livelihood assistance. The long-term livelihood assistance predominantly focused on the sustainable development of tribal families by the promotion of cash-crops cultivation. Therefore, the targeted beneficiaries of these schemes were agriculture landowners. Likewise, the short-term livelihood assistance primarily targeted on the landless tribal communities in the state for distributing fowl, cattle, etc. It revealed the contradiction of policymaking on tribal livelihood programmes. While the government formulated short-term livelihood programmes for most deprived landless tribal families for the economic assistance, they prepared long-term livelihood assistance for the long-term sustainability of landowners of tribal families. Consequently, the short-term livelihood schemes did not provide any assurance to the

economically backward tribal families to the eradication of poverty. Therefore, the government should take necessary steps for the collective process and introduction of innovative ideas of the livelihood programmes for the deprived tribal communities by the ways of conducting the intensive training, capacity building programmes and the formation of the institutional mechanism. In this regard, the concerned department should give priority to the formation of special programmes based on the cultural background and ethnic potential of various tribal groups.

5.4 Indebtedness among the Tribal Households

When a family/individual faces severe financial insecurity and poverty, naturally, they depend on other financial sources like banks, private money lenders, etc. In the case of tribal families, they primarily depended on the financial sources available locally, such as private money lenders, Kudumbashree, etc.

Table 5.26: Indebtedness of tribal households

Facing indebtedness	Communities						Total
	Malayarayar	Uruli	Kuri chyar	Paniyar	Eravaller	Irular	
No	41 (11)	16 (4.3)	33 (8.9)	56 (15.1)	20 (5.4)	42 (11.3)	208 (55.9)
Yes	28 (7.5)	18 (4.8)	29 (7.8)	12 (3.2)	25 (6.7)	52 (14)	164 (44.1)
Total	69 (18.5)	34 (9.1)	62(16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 5.26 elucidates the indebtedness of tribal families. More than 50 per cent of the tribal families did not borrow money from any financial institutions. While the number of indebted families among the Paniyar community was scant, the Eravaller and Irular communities showed the highest proportion of indebted families.

Table 5.27: Financial sources in the tribal areas

Name of creditors	Communities						Total
	Malayarayar	Uruli	Kuri chyar	Paniyar	Eravaller	Irular	
Commercial banks	7 (4)	5 (2.8)	7 (4)	3 (1.7)	0(0)	38 (21.6)	60 (34.1)
Co-operative bank	10 (5.7)	5 (2.8)	9 (5.1)	0(0)	1 (0.6)	0(0)	25 (14.2)
Private bank	2 (1.1)	1 (0.6)	2 (1.1)	0(0)	18(10.2)	3 (1.7)	26 (14.8)
Local money lenders	0(0)	1(0.6)	1 (0.6)	1 (0.6)	0(0)	0(0)	3 (1.7)
Kudumbasree	9 (5.1)	9 (5.1)	8 (4.5)	8 (4.5)	5 (2.8)	14 (8)	53 (30.1)
Others	1 (0.6)	1(0.6)	2 (1.1)	1 (0.6)	2 (1.1)	2 (1.1)	9 (5.1)
Total	29 (16.5)	22 (12.5)	29 (16.5)	13 (7.4)	26(14.8)	57 (32.4)	176 (100)

Source: Sample Survey Data

Table 5.27 elucidates the details of financial sources lending money to tribal families. Most of the tribal families taken a loan from the commercial banks/Kudumbashree, when others borrowed money from co-operative/private banks. The Kudumbashree has a pivotal role in the enhancement of the socio-economic capabilities of tribal women, especially progressive and moderate tribal communities. In Attappady,

the National Rural Livelihood Mission, Vanashree, etc. provided financial supports to the tribal communities by granting small loans to the JLG groups of tribal members. Moreover, the commercial bank in Attappady provided loans to the tribal families by considering the MGNREGA account as a guarantee card for paying their immediate expenses. It is a replicable model in other tribal regions.

Among six tribal communities, only the Eravaller families borrowed money from the private banks like ESAF according to the micro-financing system. They became more financially dependent on ESAF for bearing their incidental expenses because of low wage rates and lack of job opportunities in the localities. Moreover, they encouraged the financial dependency of these underprivileged people by providing additional private loans for purchasing household commodities from their shops along with the weekly loan liabilities. Consequently, the lives of Eravaller families became more tragic because of long-term financial liabilities and usury. The study observed the weekly repayment of money with a higher interest rate led the families from indebtedness to intensive indebtedness. Moreover, they provide micro-finance loans only to the females through the Kudumbashree or other JLG groups. Hence, repayment of amount creates more stress and strain on females, especially in the lack of job opportunities. It is a reality that Eravaller families have been spending the vital part of their income for repayment of loans rather than food consumption. Therefore, the government should address these issues seriously and to regulate the incursion of private agencies to the tribal areas without the permission of concerned authorities, especially the financial institutions like ESAF.

5.5 Inter-Community and Intra-Community Disparities in the Social Capital Formation of Tribal Communities

The social capital is a complex multi-dimensional concept linked with co-operative as well as collective actions for the attainment of mutual interest. It commonly formulates through the networks of individuals, such as organisational activities, institutional membership, and exposure with the media. This section deals with the analysis of the social capability formation of tribal members. The One-Way ANOVA Test used for assessing the inter-community and intra-community disparities between the social capabilities of tribal members based on their affiliation with organisational activities and exposure to media. The index table was prepared according to the average of the averages of the main and sub-categories of variables such as organisational affiliations, exposure towards media, and involvement of tribal members in community festivals (See appendix).

Table 5.28a: Intra-community disparities in the social capabilities of tribal households

Communities	N	Descriptives					Min.	Max.
		Mean	S. D	Std. Error	Coefficient of variation			
Malayarayar	69	.6628	.1393	.0168	0.210	.2500	.875	
Urali	34	.6250	.1051	.0180	0.168	.4167	.917	
Kurichyar	62	.6243	.1330	.0169	0.213	.3750	1.00	
Paniyar	68	.4938	.1699	.0206	0.342	.0834	.917	
Eravaller	45	.4888	.1598	.0238	0.325	.1667	.917	
Irular	94	.5319	.0926	.0096	0.175	.2499	.792	
Total	372	.5679	.1498	.0078	0.264	.0834	1.00	

Source: Sample Survey Data

Table 5.28a explains the intra-community disparities between the tribal communities in the social capabilities of tribal families. The Paniyar families (M = 0.498, S. D = 0.17, C. V = 0.342) revealed the highest disparities in the social capabilities within the community and followed by the Eravaller community (M = 0.489, S. D = 0.16, C. V = 0.325). The Urali families (M = 0.625, S. D = 0.103, C.V = 0.168) possessed lowest disparities in the social capabilities within the community. Moreover, the Malayarayar community (M = 0.663, S. D = 0.139) was at the top-most position in the social capability of family members while the Eravaller families were at the bottom level in the social progress of family members.

Table 5.28b: One-way ANOVA

ANOVA					
Disparities in the social capabilities of tribal households					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.706	5	.341	18.871	.000
Within Groups	6.618	366	.018		
Total	8.325	371			

Source: Sample Survey Data

The One-Way ANOVA test pointed out that there were highly significant inter-community disparities in the social capabilities of tribal communities at the 5 per cent significance level when $F(5,366) = 18.871$ at $P = 0.000$.

Table 5.28c: Inter-community differences in the social capabilities of tribal households

Multiple Comparisons						
Tukey HSD						
(I) Community	(J) Community	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Malayarayar	Uruli	.0378029	.0281769	.762	-.042921	.118527
	Kurichyar	.0384829	.0235317	.576	-.028933	.105899
	Paniyar	.1690029*	.0229784	.000	.103172	.234833
	Eravaller	.1739814*	.0257668	.000	.100163	.247800
	Irular	.1309068*	.0213179	.000	.069833	.191980
Uruli	Malayarayar	-.0378029	.0281769	.762	-.118527	.042921
	Kurichyar	.0006800	.0286972	.827	-.081534	.082894
	Paniyar	.1312000*	.0282452	.000	.050281	.212119
	Eravaller	.1361785*	.0305567	.000	.048637	.223720
	Irular	.0931038*	.0269117	.008	.016005	.170203
Kurichyar	Malayarayar	-.0384829	.0235317	.576	-.105899	.028933
	Uruli	-.0006800	.0286972	.827	-.082894	.081534
	Paniyar	.1305200*	.0236135	.000	.062870	.198170
	Eravaller	.1354985*	.0263347	.000	.060053	.210944
	Irular	.0924239*	.0220009	.000	.029394	.155454
Paniyar	Malayarayar	-.1690029*	.0229784	.000	-.234833	-.103172
	Uruli	-.1312000*	.0282452	.000	-.212119	-.050281
	Kurichyar	-.1305200*	.0236135	.000	-.198170	-.062870
	Eravaller	.0049785	.0258415	.860	-.069054	.079011
	Irular	-.0380962	.0214081	.480	-.099428	.023236
Eravaller	Malayarayar	-.1739814*	.0257668	.000	-.247800	-.100163
	Uruli	-.1361785*	.0305567	.000	-.223720	-.048637
	Kurichyar	-.1354985*	.0263347	.000	-.210944	-.060053
	Paniyar	-.0049785	.0258415	.860	-.079011	.069054
	Irular	-.0430747	.0243768	.488	-.112911	.026762
Irular	Malayarayar	-.1309068*	.0213179	.000	-.191980	-.069833
	Uruli	-.0931038*	.0269117	.008	-.170203	-.016005
	Kurichyar	-.0924239*	.0220009	.000	-.155454	-.029394
	Paniyar	.0380962	.0214081	.480	-.023236	.099428
	Eravaller	.0430747	.0243768	.488	-.026762	.112911

*. The mean difference is significant at the 0.05 level.

Source: Sample Survey Data

Table 5.28c depicted the Tukey Post Hoc Test. It was used for conducting multiple comparison analyses for identifying the pair differences between the tribal communities in the social capabilities of tribal families. The test revealed some tribal communities had statistically significant pair differences in the social capabilities of tribal families such as Malayarayar and Paniyar ($P = 0.000$), Malayarayar and Eravaller ($P = 0.000$), Malayarayar and Irular ($P = 0.000$), Urali and Paniyar ($P = 0.000$), Urali and Eravaller ($P = 0.000$), Urali and Irular ($P = 0.008$), Kurichyar and Paniyar ($P = 0.000$), Kurichyar and Eravaller ($P = 0.000$) and Kurichyar and Irular ($P = 0.000$). However, the pair of some tribal communities possessed similar status in social capabilities such as Malayarayar and Urali ($P = 0.762$), Malayarayar and Kurichyar ($P = 0.576$), Urali and Kurichyar ($P = 0.827$), Paniyar and Eravaller ($P = 0.860$), Paniyar and Irular ($P = 0.480$) and Eravaller and Irular ($P = 0.488$).

The One-Way ANOVA test revealed there were significant differences between the progressive and other tribal groups in the social capabilities of tribal families. The variables in the social capital index elucidated that the majority of the tribal families attained the lowest social capabilities included in the deprived tribal categories. Moreover, they possessed the lowest educational qualifications and engaged in labouring jobs only. The majority of the Paniyar and Eravaller families were not much active in the organisational and political activities. But, the majority of tribal families were immensely interested in participating in festivals in the nearest areas. While most of the tribal families handled mobile phones and watching television, they were not interested in reading newspapers, books, etc. Moreover, the Irular community in Attappady was in a similar

position of deprived groups like Paniyar and Eravaller, in the attainment of social capabilities.

5.6 Inter-Community and Intra-Community Differences in the Socio-Economic Status of Tribal Households

In the previous sections, the study identified there were significant disparities between the tribal communities in the educational status, holding asset capacities, availability of infrastructure facilities, occupational status, etc. Thus, we tried to find out the inter-community and intra-community disparities between the tribal communities in the socio-economic status with the support of the One-way ANOVA test. The index variables were prepared according to the average of the averages of variables under main and sub-categories. The major divisions in the criteria of the index table were the profile of tribal households, employment status, housing status, infrastructure facilities in house, relation with financial institutions and possessions of gadgets, and animals (See the appendix).

Table 5.29a: Differences in the socio-economic status of tribal households within the community

Communities	N	Descriptive					
		Mean	S. D	Std. Error	Coefficient of variation	Min.	Max.
Malayarayar	69	.7104	.0847	.0102	.1192	.481	.919
Urali	34	.5942	.0626	.0107	.1053	.470	.738
Kurichyar	62	.6506	.1016	.0129	.1560	.410	.848
Paniyar	68	.4592	.0872	.0106	.1900	.287	.617
Eravaller	45	.5271	.0937	.0140	.1778	.287	.699
Irular	94	.6491	.0895	.0092	.1379	.395	.819
Total	372	.6062	.0865	.0064	.1427	.287	.919

Source: Sample Survey Data

Table 5.29a exhibits intra-community disparities between the tribal communities in the socio-economic status of tribal households. The Urali families (M = 0.594, S. D = 0.063, C.V = 0.1053) in the moderate group showed the lowest disparities in the socio-economic status within the community. But, the deprived tribal communities like Paniyar (M = 0.459, S. D = 0.087, C. V = 0.19), and Eravaller (M = 0.527, S. D = 0.093, C. V = 0.179) families, revealed significant differences in the socio-economic status between the families within each community. The mean value of the analysis indicated that among six tribal communities, the Paniyar families represented the bottom position in the socio-economic status and followed by the Eravaller community.

Table 5.29b: One-way ANOVA

ANOVA					
Differences in the socio-economic status of tribal households					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.799	5	.560	70.991	.000
Within Groups	2.886	366	.008		
Total	5.685	371			

Source: Sample Survey Data

The One-Way ANOVA test stated there was a highly significant difference between the tribal communities in the socio-economic status at 5 per cent significance level when the result $F(5,366) = 70.991$, at $P = 0.000$.

Table 5.29c: Inter-community differences in the socio-economic status of tribal households

Multiple Comparisons						
Tukey HSD						
(I) Community	(J) Community	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Malayarayar	Urali	.116246*	.018607	.000	.06294	.16955
	Kurichyar	.059827*	.015540	.002	.01531	.10435
	Paniyar	.251157*	.015174	.000	.20768	.29463
	Eravaller	.183235*	.017016	.000	.13449	.23198
	Irular	.061263*	.014078	.000	.02093	.10159
Urali	Malayarayar	-.116246*	.018607	.000	-.16955	-.06294
	Kurichyar	-.056419*	.018951	.036	-.11071	-.00213
	Paniyar	.134911*	.018652	.000	.08147	.18835
	Eravaller	.066989*	.020179	.013	.00918	.12480
	Irular	-.054983*	.017772	.026	-.10590	-.00407
Kurichyar	Malayarayar	-.059827*	.015540	.002	-.10435	-.01531
	Urali	.056419*	.018951	.036	.00213	.11071
	Paniyar	.191330*	.015594	.000	.14666	.23600
	Eravaller	.123408*	.017391	.000	.07359	.17323
	Irular	.001436	.014529	.765	-.04019	.04306
Paniyar	Malayarayar	-.251157*	.015174	.000	-.29463	-.20768
	Urali	-.134911*	.018652	.000	-.18835	-.08147
	Kurichyar	-.191330*	.015594	.000	-.23600	-.14666
	Eravaller	-.067922*	.017065	.001	-.11681	-.01903
	Irular	-.189894*	.014137	.000	-.23040	-.14939
Eravaller	Malayarayar	-.183235*	.017016	.000	-.23198	-.13449
	Urali	-.066989*	.020179	.013	-.12480	-.00918
	Kurichyar	-.123408*	.017391	.000	-.17323	-.07359
	Paniyar	.067922*	.017065	.001	.01903	.11681
	Irular	-.121972*	.016098	.000	-.16809	-.07585
Irular	Malayarayar	-.061263*	.014078	.000	-.10159	-.02093
	Urali	.054983*	.017772	.026	.00407	.10590
	Kurichyar	-.001436	.014529	.765	-.04306	.04019
	Paniyar	.189894*	.014137	.000	.14939	.23040
	Eravaller	.121972*	.016098	.000	.07585	.16809

*. The mean difference is significant at the 0.05 level.

Source: Sample Survey Data

Table 5.29c elucidates the inter-community disparities in the socio-economic status of the tribal communities. The multiple-comparison analysis of the Tukey Post Hoc test showed the pair-differences between the tribal communities. It pointed out there were statistically significant differences between the pair of tribal communities in the socio-economic status such as Malayarayar and Urali ($P = 0.000$), Malayarayar and Kurichyar ($P = 0.002$), Malayarayar and Paniyar ($P = 0.000$), Malayarayar and Eravaller ($P = 0.000$), Malayarayar and Irular ($P = 0.000$), Urali and Kurichyar ($P = 0.036$), Urali and Paniyar ($P = 0.000$), Urali and Eravaller ($P = 0.000$), Urali and Irular ($P = 0.026$), Kurichyar and Paniyar ($P = 0.000$), Kurichyar and Eravaller ($P = 0.000$), Paniyar and Eravaller ($P = 0.000$), Paniyar and Irular ($P = 0.000$), Eravaller and Irular ($P = 0.000$). However, the pair of Kurichyar and Irular communities ($P = 0.765$) possessed similar socio-economic status.

The One-Way ANOVA and Tukey Post Hoc Test revealed the inter-community and intra-community differences in the socio-economic status between the progressive tribes and other tribal groups. It described that the Malayarayar community attained the highest socio-economic status and followed by the Kurichyar and Irular communities. Simultaneously, the Paniyar and Eravaller communities were at the bottom position, and also, they lagged behind all socio-economic indicators used in the analysis.

The study identified that the structural inequities, especially inequalities in the land ownership, between the tribal communities negatively impacted the inter-generational transformation and social

mobility of deprived tribal families. The household profile was one of the key indicators of the socio-economic index. It identified that the majority of families at the bottom position in the socio-economic status were deprived categories and lived under the Below Poverty Line. The employment status of the majority of their family members was wage labouring. Moreover, the asset holding capacities of the deprived tribal families were pathetic, such as ownership only on nominal lands, poor conditions of houses, lack of infrastructure facilities, etc. There was a notable difference shown in the relationship between the financial institutions and tribal members. The majority of the tribal families had bank accounts and maintaining a valuable relationship with various financial institutions. When compared to the Paniyar families, the majority of Eravaller families indebted to private money lenders like ESAF. It highly negatively impacted the economic status of Eravaller families. The availabilities of gadgets in houses showed most of the deprived tribal families possessed at least one gadget like mobile, television, etc. Thus, the comprehensive analysis of the various indicators in the socio-economic index given a negative picture on the socio-economic status of deprived tribal groups. Moreover, the socio-economic status of the Urali community in the moderate category was not considerably distinct from the deprived tribal groups like Paniyar and Eravaller.

Based on the socio-economic status of tribal communities and the various tribal development programmes in the tribal areas, the study disclosed that the current single-distributive programmes and short-term livelihood assistance could be insufficient for reducing the deprivation

rate and employment backwardness among the deprived tribal communities. The overall study revealed the lack of land availability acted as a hurdle in the socio-economic transformation of deprived tribal families. In this context, it is a political necessity to distribute adequate lands to the tribal communities for their long-term sustainability and promotion of more livelihood options.

The overall study identified that the Tribal Sub Plan performed an effective role in the current educational, health, and employment status of tribal communities even though the effects varied according to the categories of tribal communities. The data on the Plan Outlay and Expenditure of the Tribal Sub Plan indicated there was a steady growth rate in the fund allocation since 1995. Moreover, the study was conducted in a comparative perspective of tribal communities according to various indicators. Accordingly, the moderate and deprived tribal communities showed comparatively low status in education, health, employment, and livelihood options when compared to progressive tribal communities. Likewise, there was a similar difference between tribal communities in the socio-economic status and social mobility.

The study found that constructive government programmes could induce changes in a community through continuous interventions, even if their socio-economic status was poor and possessed only minimal capabilities for the social transition. It proved by the Irular community in Attappady who attained equal social mobility and educational status similar to the progressive community like Kurichyar, even though they included in moderate tribal groups. Moreover, it identified the

communities that lived in the tribal-centred areas received more benefits in education, health, and livelihood schemes under the Tribal Sub Plan rather than the tribal communities like Eravaller residing in the segregated tribal lands. Also, the study realised that the education, health, and employment status of deprived communities like Paniyar and Eravaller needs to be improved. The majority of them were wage labours, and their wage rate was insufficient for bearing their expenses. Furthermore, they have faced various forms of deprivation at an exceptional level because of many reasons, especially the absence of sustainable livelihood assistance, bottom level employment status, and lack of agriculture lands. Consequently, these factors adversely affected the socio-economic transition and attainments in the social mobility of deprived tribal communities. The study illustrates the programmes under the Tribal Sub Plan can make transitions among the deprived tribal groups only by providing basic assets like agriculture lands, house, etc. in the ownership of tribal families. Otherwise, the socio-economic transitions of the deprived tribal families will be limited, and it will have a profound impact on their social dynamics.

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GOVERNANCE, CHALLENGES AND ISSUES IN THE EXECUTION OF THE TRIBAL SUB PLAN

Contents

- 6.1 *Governing Process in Tribal Development*
- 6.2 *Democratic Participation and Engagements*
- 6.3 *Awareness about Governing Systems and Schemes*

The post-independence India has been implementing several developmental and welfare schemes for the tribal population who were inanimate with the defective approaches of the British Rulers since the first five-year plan. As part of this, the government of Kerala has been getting engaged with the tribal development programme through the implementation of various welfare and developmental programmes in the tribal areas under the Tribal Sub Plan. The Tribal Development Department and LSGIs are being using separate plan policies for tribal development programmes. The state-wide programmes are being implemented by the Tribal Development Department under the guidelines of the Government of India, and the transferred schemes are implemented by the Local Governments. So, the TSP fund allocations for Tribal Department and LSGIs are different. Hence, in this chapter, we tried to understand the effectiveness of the institutional networks of tribal

governing/administration systems in the state. Moreover, the study attempted to analyse the role of the Oorukoottam among tribal communities in the decision-making process as a traditional tribal democratic forum; the effectiveness of the service deliveries of tribal promoters and ward members in tribal hamlets; effectiveness of the sources of information in the tribal areas; awareness about various schemes and governing institutions in the tribal localities; the inter-community and intra-community disparities in the awareness about various tribal schemes; factors influencing the awareness about education and health schemes; the inter-community and intra-community disparities in the satisfaction level of various services getting from the government; and the factors influencing the satisfaction level of services getting from the government. In overall, the study assessed the role of human capabilities in the accessibility of various government services in the tribal areas by the way of analysing the inter-community disparities.

Chapter Six explains the institutional networks of the governing system and accessibility of government services in the tribal areas. It reveals most of the tribal communities did not show any interest in participating Oorukoottam meeting (Table 6.1) due to the failure of executing its decisions (Table 6.2). When compared to the house visits of tribal promoters (Table 6.3), the ward members only visited the tribal houses very rarely (Table 6.4). The tribal members were less aware of the education (Table 6.5) and the health (Table 6.7) schemes under tribal development programmes. The educational status of family members and the membership in the political parties were possessed an influential role in the awareness about education schemes of tribal families (Table 6.6).

Also, educated families were more aware of health schemes than educationally backward communities (Table 6.8). However, the majority of tribal households had sufficient knowledge about government institutions in the tribal areas (Table 6.9). The various factors have influenced the level of satisfaction of tribal communities in the government services (Tables 6.11 and 6.12). So, there were strong inter-community and intra-community disparities between tribal communities in services received from the government (Table 6.10).

This chapter is categorised into four sections, such as the governing process in tribal development, democratic participation and engagements, awareness about various schemes and governing bodies and availability of government services, and the satisfaction level of tribal households on various government services.

6.1 Governing Process of the Tribal Development in Kerala

The Tribal Development Department follows the *Top to Bottom Level/Vertical Approach* for tribal development activities in Kerala. It consists of two sections, such as the Administration wing and Implementation wing. The administration section consists of the Principal Secretary, Additional Secretary, Director, Asst. Director and Deputy Directors, etc. The implementation section has District Tribal Development Officers, Tribal Extension Officers, and Promoters. Moreover, the Tribal Development Department follows *the weighted official mechanism* for running their official functions. Hence, they divided tribal regions into various blocks based on the tribal concentration of a district and

appointed two or three tribal officers for the effective administration of tribal regions in each district.

The State Planning Board distributes the Tribal Sub Plan fund for tribal development programmes according to the need of the Tribal Directorate. In every Five Years, they have conducted three-tier committee assessments for evaluating the relevance of the annual plans before budget preparation. The three-tier review committees are i. Working group committee ii. Board level meeting of Divisional heads and the State Planning Board Members under the control of the Vice-Chairperson, and iii. The Committee meeting of the Minister of Tribal Development, Chief Secretary and VC of the State Planning Board under the control of the Chief Minister. Since 2016, the Tribal Development Department has been formulating and implementing their schemes and projects with the support of the Green Book and Amber Book. The main purpose of this system is to execute projects at the beginning of the financial year, without waiting for the approval and funding of higher-level authorities. The Amber Book includes schemes, are highly prioritized and ready to execute immediately. But, the schemes/projects included in the Green Book prepares under the procedure laid down in the Government Guidelines. Generally, the Amber and Green Books only include the state level departmental programmes for the following financial year, except the schemes of LSGIs (STDD, 2017). The Local Self-Governing Institutions follow the *horizontal or parallel organisational structure* for the implementation process of various schemes. Generally, the Working Committee Members formulate various schemes/projects for tribal development activities. It prepares based on the proportion of fund

allocation as well as the ratio of tribal population in the Grama Panchayath.

Oorukoottam is one of the traditional institutions among tribal communities in the state. The tribal promoters are responsible for conducting Oorukoottam meeting on behalf of the Tribal Development Department. In this meeting, they exchange information regarding various schemes under the TSP and prepare the beneficiary lists according to the opinion of tribal households. Moreover, it provides opportunities for tribal households to present their problems/needs in front of the authorities on a social platform.

6.2 Democratic Participation and Engagements of Tribes

When compared to mainstream society, tribal communities possess low bargaining capacities for attaining their needs/demands from the government. It happened because of traditional tribal traits, asymmetric information about the schemes, and lack of awareness about government procedures, etc. It also negatively impacts the accessibility of assistance from various government departments. Because of the lack of bargaining capacities and structural hesitations, the tribal households only get limited benefits from the government even though a large number of schemes are available under the Tribal Sub Plan. Therefore, the sources of information have a vital role in the extension of awareness of tribal members about various developmental and welfare activities of the government in the tribal areas. The prime sources of information in the tribal areas are Oorukoottam (hamlet meeting), Tribal Promoters, and Ward Members. They act as intermediaries between tribal households and institutional networks of the government in the localities. This section deals with the participation of tribal

members in the Oorukoottam meeting, information regarding the implementation of Oorukoottam decisions and hamlet visits of promoters and ward members.

6.2.1 Participation in the Oorukoottam meeting (Hamlet Meeting of tribes)

From the 10th five-year plan onwards, the government of Kerala started Oorukoottam in tribal governance for offering a democratic niche for tribal communities (Baiju, 2011), like as the Grama Sabha for the general population. As per the guidelines of the government, the authorities have to conduct Oorukoottam in two or three times in a year, based on the ward, with the presence of TEO, LSGI President, Ward Member, and senior officials from other departments. Also, the tribal promoters need to provide prior information to the tribal families, before two weeks about Oorukoottam meeting.

Table 6.1 Participation in Oorukoottam Meeting

Participating OK	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Not participate	22 (5.9)	6 (1.6)	7 (1.9)	13 (3.5)	0 (0)	55 (14.8)	103 (27.7)
Regularly	32 (8.6)	24 (6.5)	48 (12.9)	45 (12.1)	0 (0)	19 (5.1)	168 (45.2)
Sometimes	12 (3.2)	4 (1.1)	7 (1.9)	8 (2.2)	0 (0)	9 (2.4)	40 (10.8)
Rarely	3 (0.8)	0 (0)	0 (0)	2 (0.5)	0 (0)	4 (1.1)	9 (2.4)
No O.K	0 (0)	0 (0)	0 (0)	0 (0)	45 (12)	7 (1.9)	52 (14)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 6.1 depicts the participation of tribal members in the Oorukoottam meeting. Only 50 per cent of the tribal families regularly participated in the Oorukoottam meeting when others were reluctant to regular participation/not interested in the Oorukoottam meeting. It observed in the field survey that there was no Oorukoottam meeting in the Muthalamada Grama Panchayath, and most of the tribal members did not aware of the Oorukoottam meeting. Due to the violation of the Oorukoottam decisions at the time of the distribution of funds, especially in the beneficiary selection of schemes under the LSGIs, most of the tribal families were not interested in participating in the Oorukoottam meeting.

6.2.2 Implementing Oorukoottam decisions

Table 6.2 Implementing Oorukoottam decisions

Implementing OK decisions	Communities					Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Irular	
No	0 (0)	0 (0)	6 (2.8)	2 (0.9)	17 (7.8)	25 (11.5)
Regularly	7 (3.2)	6 (2.8)	0 (0)	3 (1.4)	0 (0)	16 (7.4)
Sometimes	40 (18.4)	21 (9.7)	31 (14.3)	35 (16.1)	9 (4.1)	136 (62.7)
Rarely	0 (0)	1 (0.5)	18 (14.3)	15 (6.9)	6 (2.8)	40 (18.4)
Total	47 (21.7)	28 (12.9)	55 (25.3)	55 (25.3)	32 (14.7)	217 (100)

Source: Sample Survey Data

The tribal households reveal the opinion about the execution of Oorukoottam decisions by the Tribal Department and LSGIs in Table 6.2. Most of the tribal families responded that sometimes/rarely, the government took initiatives for implementing the Oorukoottam decisions. According to the Oorukoottam rules, the promoters or ward members prepare the list of beneficiaries of various schemes in the Oorukoottam meetings based on the scheme guidelines. But, the tribal households responded that the ward members/promoters changed the name of beneficiaries from the official list of the Oorukoottam. The tribal households realised the malpractices only before the execution of schemes or displaying the final list of beneficiaries. A social activist in the Malayarayar community commented: *"I am uninterested in participating in the Oorukoottam meeting regularly. It is wasting time. Because after a working committee meeting in the Panchayath, in most of the cases, the members will replace the official beneficiary list of Oorukoottam meeting. It happens because of the political influence and preference to relatives and friends. A few years back, I was the local committee member of the ruling party. I know what was happening exactly in the decision-making process in the Panchayath."* An implementation officer in the Tribal Development Department replied they commonly select the beneficiaries from the Oorukoottam list in priority-wise. Moreover, it has carefully monitored by the concerned TEOs and Promoters.

The major challenge faced by the officials in the Tribal Development Department is the implementation of pre-listed schemes in the tribal hamlets without considering the priorities of tribal households, according to the policies of the government. Moreover, the concerned

officers could have faced the unnecessary interference of the political parties at the time of implementation of projects in the tribal areas. But, in the case of the LSGIs, the corresponding working committee is responsible for the selection and implementation of tribal development schemes, and it depends upon the interests of the ruling party in the Panchayath. Probably, in some times, these selections may be against the decisions and needs of Oorukoottam meetings.

According to the field inferences, in most of the cases, the concerned authorities were conducted Oorukoottam meeting for tribal population in the afternoon after the completion of Grama Sabha for the general population. Therefore, the local people from general categories interfered in the decision-making process of the Oorukoottam in sometimes, especially in the case of deprived groups. Moreover, the organisers kept two attendance registers separately for the tribes and the general population. Generally, the tribal promoters/ward members manage the Oorukoottam meeting with the presence of Oorumooppans/hamlet leaders only without the presence of higher officials. Because of this, the tribal households will lose the opportunities for discussing their needs directly with higher-level authorities. Thus, the government should give a prominent place to the Oorukoottam in assessing the need for tribes, selection of beneficiaries, and the implementation of government programmes among the tribal population. Moreover, by the way of providing more statutory powers to traditional institutions like the Oorukoottam meeting, tribal people can avoid the interferences of external stakeholders in the decision-making process of development activities.

6.2.3 Interaction between Promoters and Tribal Households

Since the Ninth five-year plan, the Tribal Development Department has been promptly appointing educated people from tribal communities as Tribal Promoters on a contract base, aimed to give livelihood assistance and enhancement of their capabilities. The tribal promoters are bottom level staffs of the implementation wings of the Tribal Development Department. They act as the intermediaries in between the tribal households, and various local government institutions, like the Tribal Development Department, Local Governments, Health Department, etc. (SPB, 2008). They undoubtedly have a vital role in the selection of beneficiaries and the effective implementation of various schemes under the Tribal Sub Plan. It is the responsibility of the tribal promoters to ensure the benefit of various tribal development activities to reach the end-users at the right time.

Table 6.3 House visit of Promoters

House visit of promoter	Communities						Total
	Malayarayar	Urali	Kurichiyar	Paniyar	Eravaller	Irular	
No visit	26 (7)	8 (2.2)	0 (0)	2 (0.5)	21 (5.6)	18 (4.8)	75 (20.2)
Regularly	2 (0.5)	2 (0.5)	44 (11.8)	46 (12.4)	1 (0.3)	27 (7.3)	122 (32.8)
Some- times	15 (4)	8 (2.2)	13 (3.5)	16 (4.3)	4 (1.1)	23 (6.2)	79 (21.2)
Rarely	26 (7)	16 (4.3)	5 (1.3)	4 (1.1)	19 (5.1)	26 (7)	96 (25.8)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

The hamlets/house visits of tribal promoters explain in Table 6.3. It invariably showed most of the promoters inspected tribal houses rarely/sometimes only, except in Wayanad. The majority of the tribal families were highly dissatisfied with the work performance of the tribal promoters. In Wayanad, the tribal promoters visited tribal houses at least twice a month for sharing the information of various government departments. The TEO at Thavinjal Grama Panchayath in Wayanad officially started a WhatsApp group for promoters and monitored all activities through it. Furthermore, it undoubtedly helped the tribal promoters for clarifying the issues of the tribes on time. But, the services of the tribal promoters in the Muthalamada Grama Panchayath were poor, among Eravaller communities. They were not interested in visiting tribal houses and exchanging necessary information at the right time.

Tribal Promoters carry out a vital role in the institutional network of tribal development in the state. The real vision behind the appointment of the tribal promoters was to develop transformation agents from the tribal societies by giving employment opportunities. In addition, it aimed to ensure the efficient delivery of government services to tribal families. However, the field inferences implied that, except in Wayanad, the field performances of tribal promoters were poor. They invariably failed to become a good service-delivery-mechanism as well as the bridge-mechanism in between the tribal families and various departments of the Government. It points out the need for systematic selection and training of tribal promoters to become transformative agents in society.

The Focus Group Discussions of tribal promoters have revealed they confronted many issues in their workplaces. A tribal promoter in Wayanad district shared: *"The majority of family heads in the tribal houses are wage labours. When we reach home, they will be in workplaces/in the forest/may be drunk. The ladies also will go for works. Thus, we have to visit the houses two/three times for exchanging the official information from various government departments. Periodically, we will exchange the government information with other family members/neighbours, for notifying family-heads. But, in most cases, they do not convey him/her about this information. Consequently, we need to visit these houses again. Moreover, some hamlets locate in geographically isolated areas, and we are unable to conduct field visits in these hamlets individually. Therefore, we will go for these hamlets with friends or family members. In some cases, we have to inevitably face extremely challenging or desperate situations from the tribal hamlets. In such situations, we handle everything at our own risk. Moreover, some hamlets locate in geographically isolated places, so we are not capable of conducting individual field visits to these areas. The government does not provide any insurance coverage for us, even though we are liable to work for 24 hours."* In addition, the tribal promoters face many issues such as the lack of proper training and updating about government schemes, uncertainty in the continuation of the job, lack of support from the tribal households, and interferences of political parties in the distribution of government assistance. Moreover, the promoters are the bottom level staff of the Tribal Development Department. However, they are liable to work for all government institutions in their areas and convey the information

to tribal households from the offices. They have no specific working hours for field visits or rendering seamless services to tribal households. Furthermore, they are liable to reach the hamlets at any time when the tribal people call for their needs. But the field inferences showed that most of the tribal promoters did not follow these criteria.

6.2.4 Interaction between Ward Members and tribal households

The Ward members act as middlemen in between the tribal families and Panchayath by the ways of exchanging the official information regarding various tribal development schemes implemented by the LSGIs. It is a responsibility of the ward members to properly prepare the official list of beneficiaries of panchayat schemes along with tribal promoters in the Oorukoottam meeting.

Table 6.4 Hamlet or House visit of Ward Member

House visit of Ward Member	Communities						Total
	Malayarayar	Urali	Kurichiyar	Paniyar	Eravaller	Irular	
No visit	29 (7.9)	8 (2.2)	16 (4.3)	19 (5.1)	25 (6.8)	53 (14.4)	150 (40.7)
Regularly	2 (0.5)	1(0.3)	9 (2.4)	7 (1.9)	0 (0)	14 (3.8)	33 (8.9)
Some- times	18 (4.9)	6 (1.6)	18 (4.9)	29 (7.9)	1 (0.3)	17 (4.6)	89 (24.1)
Rarely	18 (4.9)	19 (5.1)	19 (5.1)	13 (3.5)	19 (5.1)	9 (2.4)	97 (26.3)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 6.4 exhibits the hamlet or house visit of the ward member in the tribal localities. The majority of tribal families replied the Ward Members visited their houses very rarely. Additionally, they were highly dissatisfied with the performance of ward members due to the lack of house visits and failure to exchange information. Therefore, tribal families depended on other sources of information like Oorukoottam, promoters, Anganawadi and Kudumbashree, etc.

6.3 Awareness About the Governing Systems and Schemes

The awareness of governing institutions and various schemes under the tribal development programmes are needed for the socio-economic development of the tribal families. Hence, the study tried to analyse the knowingness of tribal members in the governing institutions, and health and education schemes. It predominantly focused on the inter-community and intra-community disparities in the awareness about governing institutions, and health and education schemes. Moreover, the study has also revealed the factors influencing the knowingness of governing institutions, and education and health schemes.

6.3.1a Awareness about Education Schemes

The awareness about education schemes under the TSP helps for obtaining educational assistances from various government institutions like the Tribal Development Department, LSGIs, etc. Moreover, it promotes to enhance the education status of tribal members. The One-way ANOVA test was used for assessing the inter-community and intra-community disparities between the tribal communities in the knowledge

about education schemes with the support of index values. There were ten schemes used for preparing the index table of the knowledge level of tribal members in educational schemes. The schemes were incentive to brilliant students, Ayyankali Memorial talent search scholarship, assistance for study tour, supply of chair and table, supply of laptop, MRS/Ashram School, Pre-Matric or Post-Matric Scholarships, vocational training courses, free entrance coaching class, and skill development programmes (See Appendix).

Table 6.5a Intra-community disparities in the awareness about education schemes

Descriptives							
Communities	N	Mean	S. D	Std. Error	Coefficient of variation	Min.	Max.
Malayarayar	69	.3136	.1919	.0231	0.612	.0000	.7273
Urali	34	.3743	.2011	.0345	0.537	.0000	.7273
Kurichyar	62	.3372	.1556	.0198	0.461	.0909	.9091
Paniyar	68	.2460	.1474	.0179	0.599	.0000	.7273
Eravaller	45	.1556	.1365	.0204	0.877	.0000	.6364
Irular	94	.2321	.1304	.0135	0.561	.0000	.6364
Total	372	.2710	.1699	.0088	0.627	.0000	.9091

Source: Sample Survey Data

The descriptive of the One-way ANNOVA test resulted that the Eravaller families (M = 0.1556, S.D = 0.1365, C.V = 0.877) hold the highest disparities in the awareness about educational schemes within the community. Nothing but, the Kurichyar families (M = 0.3372, S. D = 0.156,

C.V = 0.461), revealed the lowest disparities in the awareness about educational schemes in between the households. When compared to other tribal groups, the Eravaller community only possessed a lesser amount of knowledge in educational schemes and followed by the Irular community (M = 0.2321, SD =0.1304). It showed the tribal communities in Palakkad District had insufficient knowledge in the educational schemes.

Table 6.5b One-way ANOVA

ANOVA					
Awareness about education schemes					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.545	5	.309	12.325	.000
Within Groups	9.173	366	.025		
Total	10.718	371			

Source: Sample Survey Data

Table 6.5b points out the result of the One-way ANOVA test. It explains the inter-community disparities in the knowledge about the educational schemes of tribal members. The test revealed a statistically significant difference between the tribal communities in the awareness about educational schemes at 5 per cent significance level when $P = 0.000$, at $F(5, 366) = 12.325$.

Table 6.5c Inter-community differences in the awareness about education schemes

Multiple Comparisons						
Tukey HSD						
(I) Community	(J) Community	Mean Difference (I-J)	Sd. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Malayarayar	Urali	-.0607611	.0331724	.447	-.155796	.034274
	Kurichyar	-.0236729	.0277037	.757	-.103041	.055695
	Paniyar	.0675812	.0270523	.127	-.009920	.145083
	Eravaller	.1580149*	.0303350	.000	.071109	.244921
	Irular	.0814622*	.0250974	.016	.009561	.153363
Urali	Malayarayar	.0607611	.0331724	.447	-.034274	.155796
	Kurichyar	.0370881	.0337849	.882	-.059702	.133878
	Paniyar	.1283422*	.0332529	.002	.033077	.223608
	Eravaller	.2187760*	.0359742	.000	.115714	.321838
	Irular	.1422232*	.0316829	.000	.051456	.232991
Kurichyar	Malayarayar	.0236729	.0277037	.757	-.055695	.103041
	Urali	-.0370881	.0337849	.882	-.133878	.059702
	Paniyar	.0912541*	.0278000	.014	.011610	.170898
	Eravaller	.1816878*	.0310036	.000	.092866	.270510
	Irular	.1051351*	.0259015	.001	.030930	.179340
Paniyar	Malayarayar	-.0675812	.0270523	.127	-.145083	.009920
	Urali	-.1283422*	.0332529	.002	-.223608	-.033077
	Kurichyar	-.0912541*	.0278000	.014	-.170898	-.011610
	Eravaller	.0904337*	.0304230	.037	.003276	.177592
	Irular	.0138810	.0252036	.794	-.058324	.086086
Eravaller	Malayarayar	-.1580149*	.0303350	.000	-.244921	-.071109
	Urali	-.2187760*	.0359742	.000	-.321838	-.115714
	Kurichyar	-.1816878*	.0310036	.000	-.270510	-.092866
	Paniyar	-.0904337*	.0304230	.037	-.177592	-.003276
	Irular	-.0765528	.0286986	.084	-.158771	.005665
Irular	Malayarayar	-.0814622*	.0250974	.016	-.153363	-.009561
	Urali	-.1422232*	.0316829	.000	-.232991	-.051456
	Kurichyar	-.1051351*	.0259015	.001	-.179340	-.030930
	Paniyar	-.0138810	.0252036	.794	-.086086	.058324
	Eravaller	.0765528	.0286986	.084	-.005665	.158771

*. The mean difference is significant at the 0.05 level.

Source: Sample Survey Data

Table 6.5c explains the Multiple comparisons of the Tukey Post Hoc test. The test applied multiple comparisons analysis for identifying the pair-wise differences between the tribal communities in the knowledge about educational schemes. The result showed the pair of some tribal communities possessed statistically significant differences in the awareness about the educational schemes like Malayarayar and Eravaller ($P = 0.000$), Malayarayar and Irular ($P = 0.016$), Urali and Paniyar ($P = 0.002$), Urali and Eravaller ($P = 0.000$), Urali and Irular ($P = 0.000$), and Kurichyar and Irular ($P = 0.037$). But, the pair of some tribal communities held similar status in the awareness about the educational schemes such as Malayarayar and Urali ($P = 0.447$), Malayarayar and Kurichyar ($P = 0.757$), Malayarayar and Paniyar ($P = 0.127$), Urali and Kurichyar ($P = 0.882$), Paniyar and Irular ($P = 0.794$), and Eravaller and Irular ($P = 0.084$).

6.3.1b Binomial Logit model of the factors influencing the awareness about education schemes of tribal members

The binomial logistics regression analysis estimates the probability of events occurring in a model. It predicts whether cases can be correctly classified or predicted from the independent variables.

a) Logical model of awareness about education schemes

The analysis helped to understand whether the internal factors/independent variables like community, the educational status of the tribal members, the job-status of tribal households, membership in organisational activities, and membership in political parties influenced the awareness about educational schemes of tribal members.

Table 6.6a Summary of the Logical Model

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	254.890 ^a	.080	.150

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Source: Sample Survey Data

Table 6.6a elucidates the test result of the Cox & Snell R2 Test and Nagelkerke R2 Test. It describes the contribution of independent variables in the creation of variations in the awareness about educational schemes. Cox & Snell R2 Test and Nagelkerke R2 Test explained the ranges of variation in the dependent variable from 8 per cent to 15 per cent. Here, Nagelkerke R2 value indicated that the collective independent variables created only 15 per cent of variations in the awareness about educational schemes of tribal members. The remaining 85 per cent of the variations generated from other external factors.

Table 6.6b Classification Table

Classification Table^a					
Observed		Predicted			
		Awareness about educational schemes		Percentage Correct	
		No	Yes		
Step 1	Awareness about educational schemes	No	322	2	99.4
		Yes	48	0	.0
Overall Percentage					86.6

a. The cut value is .500

Source: Sample Survey Data

Table 6.6b exhibits the Classification table of regression analysis. It helped for assessing the importance of the expected classification against the actual classification. The model correctly classified 86.6 per cent of cases for analysis. Here, the predicted values in the classification table pointed out the tribal members were unaware of the educational schemes when the cut value 0.5.

Table 6.6c Factors influencing the awareness about educational schemes

		Variables in the Equation					
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Community	.232	.124	3.518	1	.061	1.261
	Educational status of the household	.296	.104	8.081	1	.004	1.345
	Job-status of Household	.040	.199	.040	1	.842	1.040
	Membership in organisational activities	.226	.536	.177	1	.674	1.253
	Party membership	.877	.385	5.199	1	.023	2.405
	Constant	-4.450	.648	47.194	1	.000	.012

a. Variable(s) entered on step 1: Community, Educational status of the household, Job- status of Household, Membership in organisational activities, Party membership.

Source: Sample Survey Data

Table 6.6c illustrates the influential role of internal factors in the awareness about education schemes of tribal families. The Wald test described the statistical significance of the independent variables used in

the analysis. It explained that the Educational status of tribal members ($P = 0.004$) and Political party membership ($P = 0.023$) added significantly to the model at 5 per cent significance level. These factors had an influential role in generating awareness among tribal members about educational schemes. But, the other variables like Community ($P = 0.061$), Job-status of tribal households ($P = 0.842$), and Membership in organisational activities ($P = 0.674$) were excluded from the model at 5 per cent significance level. These three factors failed to influence tribal members in broadening awareness of education schemes.

Test Summary

The Binomial Logistics Regression Analysis used to ascertain the influential role of Community, Educational status of the tribal members, Job-status of tribal households, Membership in organisational activities, and Political Party membership in the awareness about educational schemes. The model was statistically significant at $\chi^2(5) = 31.965$, $P = .000$. The Cox & Snell R² Test and Nagelkerke R² Test described the ranges of the variance (from 8 per cent to 15 per cent respectively) in the awareness about the educational schemes. Also, the model correctly classified 86.6 per cent of the cases. When a unit change happened in one variable, all other independent variables considered as a constant in the model. The Educational status of tribal members ($B = 0.296$; $E(B) = 1.345$), and Membership in political parties ($B = .877$; $E(B) = 2.405$) influenced by an increased likelihood of the awareness about the educational schemes. The odds ratio ($E(B) = 1.345$) explained the educationally highly qualified tribal households were 1.345 times

greater aware of the educational schemes than the educationally backward families. Similarly, the tribal families with membership in the political parties had 2.405 times more aware of the educational schemes of the Tribal Department than the families did not have membership in the political party.

The Socio-economic and educational attainments of the ancestors in progressive communities like Malayarayar and Kurichyar influenced by the descendants for making advancement in their education and employment status. In the Binomial Logit Model, it was observed the educational status of tribal members and membership in political parties had influenced the awareness about the educational schemes of the tribal families. It was the outcome of the convergence between the public exposure from political party affiliation and the social status resulted from educational attainments. There is a crucial link between education and healthy democracy in shaping the capability of a society to recognize its surroundings (Elaine, 2009). Hence, the government needs to take initiatives for developing the capabilities of tribal communities, especially disadvantaged groups, for identifying their needs and improving their bargaining capacities in public places.

6.3.2a Awareness about health schemes in the tribal areas

According to various statistical reports of the Union and State Ministries, tribal members in the state have faced many health issues. Even though both governments have been providing a lot of health assistance to the tribal people, they have suffered many health issues like

sickle cell anaemia, infant death, nutritional issues, underweight, etc. The state government has introduced various health schemes for the protection and promotion of the health of tribal people. In the study, we used the name of eight health schemes for assessing the awareness of tribal families in health schemes. The schemes were assistance for sickle cell anaemia, Janani Janma Raksha, assistance to traditional tribal healers, food support programmes, health care package, the cancer control programme, assistance to the private hospital and State Health Insurance card.

Table 6.7a Intra-community disparities in the awareness about health schemes

Communities	N	Descriptive					
		Mean	S. D	Std. Error	Coefficient of variation	Min.	Max.
Malayarayar	69	.3098	.1723	.0207	0.5563	.125	.875
Urali	34	.3493	.1891	.0324	0.5413	.125	1.000
Kurichyar	62	.3448	.1643	.0209	0.4765	.125	1.000
Paniyar	68	.2904	.1593	.0193	0.5485	.000	.625
Eravaller	45	.1611	.1181	.0176	0.7324	.000	.500
Irular	94	.3431	.1466	.0151	0.4271	.000	.625
Total	372	.3061	.1675	.0087	0.5472	.000	1.000

Source: Sample Survey Data

Table 6.7a exhibits descriptive of the One-way ANOVA test. It explained the intra-community differences in the awareness about various health schemes implemented by the government in the tribal areas.

According to the Descriptives of the One-way ANOVA test, the Eravaller (M = 0.1611, S.D = 0.118, C.V = 0.732) community held the highest disparities among their families in the awareness about various health schemes. Nothing but, the Irular community (M = 0.343, S.D = 0.147, C.V = 0.427), revealed the lowest disparities between their families in the awareness about health schemes. It is worth mentioning here that some Paniyar, Eravaller, and Irular families were unaware of any health schemes.

Table 6.7b One-way ANOVA

ANOVA					
Awareness about health schemes					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.248	5	.250	9.976	.000
Within Groups	9.159	366	.025		
Total	10.407	371			

Source: Sample Survey Data

The One-way ANOVA Test states that the tribal communities held statistically significant differences between them in the awareness about the health schemes at 5 per cent significance level when the output was $F(5, 366) = 9.976$ at $P = 0.000$.

Table 6.7c Inter-community differences in the awareness about health schemes

		Multiple Comparisons				
		Tukey HSD				
(I) Community	(J) Community	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Malayarayar	Urali	-.039482	.033146	.841	-.13444	.05548
	Kurichyar	-.034975	.027681	.805	-.11428	.04433
	Paniyar	.019341	.027030	.780	-.05810	.09678
	Eravaller	.148671*	.030311	.000	.06184	.23551
	Irular	-.033302	.025077	.769	-.10515	.03854
Urali	Malayarayar	.039482	.033146	.841	-.05548	.13444
	Kurichyar	.004507	.033758	.786	-.09221	.10122
	Paniyar	.058824	.033226	.486	-.03637	.15401
	Eravaller	.188154*	.035945	.000	.08517	.29113
	Irular	.006180	.031657	.823	-.08451	.09687
Kurichyar	Malayarayar	.034975	.027681	.805	-.04433	.11428
	Urali	-.004507	.033758	.786	-.10122	.09221
	Paniyar	.054317	.027778	.370	-.02526	.13390
	Eravaller	.183647*	.030979	.000	.09490	.27240
	Irular	.001673	.025881	.847	-.07247	.07582
Paniyar	Malayarayar	-.019341	.027030	.780	-.09678	.05810
	Urali	-.058824	.033226	.486	-.15401	.03637
	Kurichyar	-.054317	.027778	.370	-.13390	.02526
	Eravaller	.129330*	.030398	.000	.04224	.21642
	Irular	-.052644	.025183	.295	-.12479	.01950
Eravaller	Malayarayar	-.148671*	.030311	.000	-.23551	-.06184
	Urali	-.188154*	.035945	.000	-.29113	-.08517
	Kurichyar	-.183647*	.030979	.000	-.27240	-.09490
	Paniyar	-.129330*	.030398	.000	-.21642	-.04224
	Irular	-.181974*	.028675	.000	-.26413	-.09982
Irular	Malayarayar	.033302	.025077	.769	-.03854	.10515
	Urali	-.006180	.031657	.823	-.09687	.08451
	Kurichyar	-.001673	.025881	.847	-.07582	.07247
	Paniyar	.052644	.025183	.295	-.01950	.12479
	Eravaller	.181974*	.028675	.000	.09982	.26413

*. The mean difference is significant at the 0.05 level.

Source: Sample Survey Data

Table 6.7c depicts the result of the Tukey Post Hoc Test. It was used for identifying the pair differences between the communities in the awareness about health schemes through Multiple Comparison of tribal communities. It showed there was a statistically significant difference between the pairs of the tribal communities in the awareness about various health schemes such as Malayarayar and Eravaller ($P = 0.000$), Urali and Eravaller ($P = 0.000$), Kurichyar and Eravaller ($P = 0.000$), Paniyar and Eravaller ($P = 0.000$), and Eravaller and Irular ($P = 0.000$). However, there was no significant difference between the pairs of certain tribal communities in the awareness about the health schemes like Malayarayar and Urali ($P = 0.841$), Kurichyar and Malayarayar ($P = 0.805$), Paniyar and Malayarayar ($P = 0.98$), Malayarayar and Irular ($P = 0.769$), Kurichyar and Urali ($P = 0.786$), Paniyar and Urali ($P = 0.486$), Urali and Irular ($P = 0.823$), Kurichyar and Paniyar ($P = 0.37$), Kurichyar and Irular ($P = 0.847$), and Paniyar and Irular ($P = 0.295$).

6.3.2b. Binomial Logit model of awareness about health schemes

The *Binomial Logit Model* was used for assessing the influential role of various factors on the awareness about health schemes in the tribal areas. It assisted for understanding whether the variables like community, the educational status of tribal members, job-status of tribal households, membership in organisational activities, and membership in political parties have any influential role in the awareness about health schemes under the tribal development programmes.

Table 6.8a Summary of Logical Model

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	370.357 ^a	.031	.048

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Source: Sample Survey Data

Table 6.8a displays a summary of the Logical Model. It was used for identifying the proportion of the contribution of the independent variables to the variations in the dependent variable. The Cox & Snell R² Test and Nagelkerke R² Test explained ranges of variation in the dependent variable (i.e. awareness about health schemes) from 3.1 per cent to 4.8 per cent. Here, the Nagelkerke R² value indicated that the collective independent variables used for the analysis were poor predictors because it caused a relatively lesser proportion of the variations in the dependent variable. The selected independent variables did not have more influential power in the awareness about the health schemes because these variables only made a relatively small proportion of variations in the awareness of health schemes. The other factors like sources of information, participation in Oorukoottam, etc. influenced the awareness of health schemes.

Table 6.8b Classification Table

Classification Table ^a					
Observed		Predicted			Percentage Correct
		Awareness about health schemes			
		No	Yes		
Step 1	Awareness about health schemes	No	294	0	100
		Yes	78	0	.0
Overall Percentage					79.0

a. The cut value is .500

Source: Sample Survey Data

Table 6.8b displays the Classification table of the logit model. It explains the importance of assessment of the expected classification against the actual classification. Moreover, it provided a measure of predictability of the model estimated. In the Classification table, the estimated model has correctly classified 79 per cent of the cases. It means that the predictability power of the model was exceptionally high.

Table 6.8c Factors influencing the awareness about health schemes

Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp (B)
Community	-.120	.098	1.493	1	.222	.887
Educational status of household	.191	.084	5.243	1	.022	1.211
Step 1 ^a Job status of Household	.157	.144	1.178	1	.278	1.170
Membership in organisational activities	.462	.377	1.504	1	.220	1.587
Party membership	.065	.352	.034	1	.853	1.067
Constant	-2.364	.425	30.980	1	.000	.094

a. Variable(s) entered on step 1: Community, Educational status of household, Job status of Household, Membership in organisational activities, Party membership.

Source: Sample Survey Data

Table 6.8c explains the influential role of internal factors on the awareness of health schemes of tribal families. The Wald Test describes the statistical significance of the independent variables used in the analysis. It showed that the Educational status of tribal members ($P = 0.022$), added significantly and positively, as expected, to the model and the variable carry out an influential role in increasing awareness about the health schemes. In the SPSS, the odds-ratio denote as $\exp(B)$. It showed that as the educational status of tribal members increased, the tribal families were 1.2 times more likely to be aware of the health schemes. Nevertheless, Community ($P = 0.222$), Job-status of tribal households ($P = 0.278$), Membership in organisational activities ($P = 0.220$), and Political party membership ($P = 0.853$) did not add significantly to the model. Furthermore, these independent variables did not have any influential power for increasing the awareness about the health schemes among tribal families. It is surprising to observe that the job status and organisational and party memberships do not help the tribal households become aware of these schemes.

Test Summary

The Binomial Logit Regression Analysis was used to ascertain the influential role of internal factors like Community, Educational status of tribal members, Job-status of tribal households, Membership in organisational activities, and Party membership, in the awareness of health schemes of tribal households. The model was statistically significant at $\chi^2(5) = 11.627$, $P = 0.04$. The Cox & Snell R^2 Test and Nagelkerke R^2 Test described the ranges of the variance in the awareness

about the health schemes from 3.1 per cent to 4.8 per cent respectively. Also, these were correctly classified 79 per cent of the cases in the model. The increases in the Educational status of tribal households ($B = 0.191$; $E(B) = 1.211$) were significantly associated with an increased likelihood of the awareness of the tribal families about health schemes. The odds ratio ($E(B) = 1.211$) explained that the families held higher educational qualifications had 1.211 times more aware of the health schemes than the families held lower education qualifications.

The majority of tribal families, especially the Paniyar, Eravaller, and Irular families, were not much aware of the schemes under the Tribal Sub Plan. Because of the hesitation/reluctant of family members to attend Oorukoottam meeting, irresponsibility of tribal promoters in house visits, the negligence of family members to exchange information with the family-head, and the exclusion of family based on the criteria of the scheme guidelines, etc. affected the awareness of various schemes of family members. Moreover, some other factors like the educational status of family members, political party affiliation, and involvement in the organisational activities have also influenced the tribal population in the knowledge about various schemes implemented by the government. A tribal promoter in Wayanad district commented: *"The TEO conducts a meeting every Wednesday at his office. In this meeting, we report the weekly work progress and share our field experiences. Also, the officer gives clarification to our doubts and exchange the latest information to us. Due to our absence in the weekly meeting, sometimes we do not get information at the proper time. It adversely affects the submission of the application form within the last date. Moreover, the enormity of schemes*

in a year also makes us more confused, especially the criteria of schemes. Thus, it may also generate confusion among tribal families about various schemes."

6.3.3 Awareness about the governing institutions in the tribal areas

In this section, the study tried to analyse the awareness of tribal communities about various government departments in the tribal regions. There are several government departments in the tribal areas. However, the index table of the governing institutions was prepared based on the departments in which tribal families were most dependent. It included the District Tribal Development Office or ITDP, Tribal Extension Office, District Panchayath, Block Panchayath, and Grama Panchayath. The One-way ANOVA tests used for assessing the inter-community and intra-community disparities between the tribal families in the awareness about various government institutions in the tribal regions.

Table 6.9a Intra-community disparities in the awareness about governing institutions

Communities	Descriptive						
	N	Mean	S. D	Std. Error	Coefficient of variation	Min.	Max.
Malayarayar	69	1	.00	.00	0	1	1
Urali	34	1	.00	.00	0	1	1
Kurichyar	62	1	.00	.00	0	1	1
Paniyar	68	.9976	.0202	.0025	.020	.833	1
Eravaller	45	.8667	.1448	.0216	.167	.500	1
Irular	94	.9379	.0914	.0094	.098	.667	1
Total	372	.9677	.0821	.0043	.0848	.500	1

Source: Sample Survey Data

Table 6.9a depicts the descriptive of the One-way ANOVA test. It explains the intra-community disparities in the awareness about governing institutions in the tribal regions. The majority of the tribal families were well aware of governing institutions in their localities. The Malayarayar, Kurichyar, and Urali communities did not exhibit notable differences within their families in the awareness about government departments in the localities. However, in the six tribal communities, the Eravaller community (M = 0.866, S. D = 0.145, C.V = 0.167) revealed strong disparities within the families in the awareness about various government departments.

Table 6.9b One-way ANOVA

ANOVA					
Awareness about governing institutions					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.775	5	.155	32.872	.000
Within Groups	1.726	366	.005		
Total	2.502	371			

Source: Sample Survey Data

Table 6.9b exhibits the result of the One-way ANOVA Test. It revealed there was a statistically significant difference between the tribal communities in the awareness about the governing institutions in their localities at 5 per cent significance level, when $F(5, 366) = 32.872$, at $P = 0.000$.

Table 6.9c Inter-community differences in the awareness about governing institutions

		Multiple Comparisons				
		Tukey HSD				
(I) Community	(J) Community	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Malayarayar	Urali	.000000	.014391	.865	-.04123	.04123
	Kurichyar	.000000	.012019	.795	-.03443	.03443
	Paniyar	.002451	.011736	.857	-.03117	.03607
	Eravaller	.133333*	.013160	.000	.09563	.17104
	Irular	.062057*	.010888	.000	.03086	.09325
Urali	Malayarayar	.000000	.014391	.865	-.04123	.04123
	Kurichyar	.000000	.014657	.785	-.04199	.04199
	Paniyar	.002451	.014426	.884	-.03888	.04378
	Eravaller	.133333*	.015607	.000	.08862	.17804
	Irular	.062057*	.013745	.000	.02268	.10143
Kurichyar	Malayarayar	.000000	.012019	.795	-.03443	.03443
	Urali	.000000	.014657	.785	-.04199	.04199
	Paniyar	.002451	.012060	.893	-.03210	.03700
	Eravaller	.133333*	.013450	.000	.09480	.17187
	Irular	.062057*	.011237	.000	.02986	.09425
Paniyar	Malayarayar	-.002451	.011736	.857	-.03607	.03117
	Urali	-.002451	.014426	.884	-.04378	.03888
	Kurichyar	-.002451	.012060	.893	-.03700	.03210
	Eravaller	.130882*	.013198	.000	.09307	.16869
	Irular	.059606*	.010934	.000	.02828	.09093
Eravaller	Malayarayar	-.133333*	.013160	.000	-.17104	-.09563
	Urali	-.133333*	.015607	.000	-.17804	-.08862
	Kurichyar	-.133333*	.013450	.000	-.17187	-.09480
	Paniyar	-.130882*	.013198	.000	-.16869	-.09307
	Irular	-.071277*	.012450	.000	-.10695	-.03561
Irular	Malayarayar	-.062057*	.010888	.000	-.09325	-.03086
	Urali	-.062057*	.013745	.000	-.10143	-.02268
	Kurichyar	-.062057*	.011237	.000	-.09425	-.02986
	Paniyar	-.059606*	.010934	.000	-.09093	-.02828
	Eravaller	.071277*	.012450	.000	.03561	.10695

*. The mean difference is significant at the 0.05 level.

Source: Sample Survey Data

Table 6.9c exhibits the result of the Tukey Post Hoc Test about the inter-community disparities in the awareness about the governing institutions in the tribal localities. It reveals there was a statistically significant difference between the pair of tribal communities in the awareness about governing institutions in the tribal localities such as Malayarayar and Eravaller ($P = 0.000$), Malayarayar and Irular ($P = 0.000$), Urali and Eravaller ($P = 0.000$), Urali and Irular ($P = 0.000$), Kurichyar and Eravaller ($P = 0.000$), Kurichyar and Irular ($P = 0.000$), Paniyar and Eravaller ($P = 0.000$), and Paniyar and Irular ($P = 0.000$) communities. Nonetheless, the pair of some tribal communities possessed similar status in the awareness about the governing institutions in their localities. The pair of communities were Malayarayar and Urali ($P = 0.865$), Malayarayar and Kurichyar ($P = 0.795$), Malayarayar and Paniyar ($P = 0.857$), Urali and Kurichyar ($P = 0.785$), Urali and Paniyar ($P = 0.884$), and Kurichyar and Paniyar ($P = 0.893$).

The majority of the tribal families were well aware of the governing institutions in their localities, except some families in Paniyar, Eravaller, and Irular communities. These families were unaware because of the geographical isolation of houses, illiteracy of family members, lack of interaction with the public, fear of interacting with government officials, and poverty of tribal families. It indicates the disadvantaged tribal families needed more mental and external support from the institutional networks of the government to enter the outside world.

6.4 Availability of the Government Services and the Satisfaction Level of Tribal Households

This section deals with the inter-community and intra-community differences in the services getting from various government departments. This section deals with the level of satisfaction of the tribal households on the financial assistance from the government and the influential role of various internal factors on the satisfaction level of tribal members in the government services.

6.4.1 Inter-community and Intra-community disparities in the financial assistance getting from the government

The Descriptive, One-Way ANOVA and the Tukey Post Hoc Test elucidate the inter-community and intra-community disparities in the availability of financial assistance getting from the various government schemes. The variables like financial assistance for the purchasing of lands, housing construction, livelihood schemes, skill development programme, and educational support were used for the preparation of the index on services getting from the government for doing the One-way ANOVA test.

Table 6.10a Intra-community disparities in the financial assistance received from the government

Descriptive							
Communities	N	Mean	S. D	Std. Error	Coefficient of variation	Min.	Max.
Malayarayar	69	.3942	.1714	.02063	0.435	.000	.800
Urali	34	.4941	.1413	.02423	0.286	.200	.600
Kurichyar	62	.5129	.1520	.01931	0.296	.200	1.000
Paniyar	68	.4618	.1804	.02188	0.390	.000	1.000
Eravaller	45	.4578	.1515	.02258	0.331	.000	.800
Irular	94	.3596	.1454	.01499	0.404	.000	.800
Total	372	.4344	.1677	.00870	0.386	.000	1.000

Source: Sample Survey Data

Table 6.10a explains the intra-community differences in financial assistance getting from the government. The coefficient of variation of the Malayarayar community (M = 0.394, S. D = 0.1714, C. V = 0.435) revealed the highest disparities within the Malayarayar families in the financial assistance getting from various government schemes. Nothing but, the coefficient of variation of the Urali community (M = 0.4941, S. D = 0.1413, C.V = 0.286) explained, the lowest disparities between the Urali families in the financial assistance receiving from various government departments.

Table 6.10b One-way ANOVA

ANOVA					
Benefits availed to the household					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.217	5	.243	9.656	.000
Within Groups	9.223	366	.025		
Total	2.502	371			

Source: Sample Survey Data

Table 6.10b exhibits the result of the One-way ANOVA Test. It explained there were highly significant disparities between the tribal communities in the financial assistance getting from the government at 5 per cent significance level when $F(5, 366) = 9.656$, at $P = 0.000$.

Table 6.10c Inter-community disparities in the financial assistance received from the government

Multiple Comparisons						
Dependent Variable: Benefits availed to the households						
Tukey HSD						
(I) Community	(J) Community	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Malayarayar	Uruli	-.099915*	.033262	.034	-.19521	-.00462
	Kurichyar	-.118700*	.027779	.000	-.19828	-.03912
	Paniyar	-.067562	.027125	.129	-.14527	.01015
	Eravaller	-.063575	.030417	.295	-.15072	.02357
	Irular	.034628	.025165	.741	-.03747	.10672
Uruli	Malayarayar	.099915*	.033262	.034	.00462	.19521
	Kurichyar	-.018786	.033876	.845	-.11584	.07827
	Paniyar	.032353	.033343	.827	-.06317	.12788
	Eravaller	.036340	.036071	.795	-.06700	.13968
	Irular	.134543*	.031768	.000	.04353	.22556
Kurichyar	Malayarayar	.118700*	.027779	.000	.03912	.19828
	Uruli	.018786	.033876	.845	-.07827	.11584
	Paniyar	.051139	.027875	.445	-.02872	.13100
	Eravaller	.055125	.031087	.484	-.03394	.14419
	Irular	.153329*	.025971	.000	.07892	.22773
Paniyar	Malayarayar	.067562	.027125	.129	-.01015	.14527
	Uruli	-.032353	.033343	.827	-.12788	.06317
	Kurichyar	-.051139	.027875	.445	-.13100	.02872
	Eravaller	.003987	.030505	.854	-.08341	.09138
	Irular	.102190*	.025272	.001	.02979	.17459
Eravaller	Malayarayar	.063575	.030417	.295	-.02357	.15072
	Uruli	-.036340	.036071	.795	-.13968	.06700
	Kurichyar	-.055125	.031087	.484	-.14419	.03394
	Paniyar	-.003987	.030505	.854	-.09138	.08341
	Irular	.098203*	.028776	.009	.01576	.18064
Irular	Malayarayar	-.034628	.025165	.741	-.10672	.03747
	Uruli	-.134543*	.031768	.000	-.22556	-.04353
	Kurichyar	-.153329*	.025971	.000	-.22773	-.07892
	Paniyar	-.102190*	.025272	.001	-.17459	-.02979
	Eravaller	-.098203*	.028776	.009	-.18064	-.01576

*. The mean difference is significant at the 0.05 level.

Source: Sample Survey Data

Table 6.10c depicted the test result of the Tukey Post Hoc Analysis. It explains the inter-community disparities in the financial assistance getting from the government. According to the Tukey Post Hoc Test, the pairs of some tribal communities revealed significant differences in the financial assistance receiving from the government like Malayarayar and Urali ($P = 0.034$), Malayarayar and Kurichyar ($P = 0.000$), Kurichyar and Irular ($P = 0.000$), Paniyar and Irular ($P = 0.001$) as well as Eravaller and Irular ($P = 0.009$). However, the pairs of most of the tribal communities held equality in the availability of financial assistance getting from the government such as Malayarayar and Paniyar ($P = 0.129$), Malayarayar and Eravaller ($P = 0.295$), Malayarayar and Irular ($P = 0.741$), Urali and Paniyar ($P = 0.827$), Urali and Eravaller ($P = 0.795$), Urali and Kurichyar ($P = 0.845$), Kurichyar and Paniyar ($P = 0.445$) as well as Kurichyar and Eravaller ($P = 0.484$).

Among six tribal communities, only some Kurichyar and Eravaller families received all financial support from the government, such as assistance for purchasing land, housing construction, livelihood assistance, skill development programme, and education. Simultaneously, some Malayarayar, Paniyar, Eravaller, and Irular families did not receive any benefit from the government. The field inferences reveal the institutional frameworks of the government failed to provide adequate assistance to the tribal communities in skill development and livelihood facilities, especially in the case of Paniyar and Eravaller communities. The major drawback was the government provided long-term livelihood support only to the agriculture landowners, and most of the families were progressive or moderate tribal groups. They did not give priority to the

deprived tribal families for their long-term livelihood assistance and financial security of the families.

6.4.2a. Inter-community and Intra-community disparities in the satisfaction level of beneficiaries in services getting from the government

The index value of the One-way ANOVA test was constructed based on the average of the average of various independent variables in the ordinal form. These variables were also categorised into the main and sub-divisions (See Appendix). The key variables are the level of satisfaction on the sources of information, the performance of the governing system, approaches of government functionaries, services getting from various government departments, and fund allocation and monitoring of tribal development programmes.

Table 6.11a Intra community disparities in the satisfaction level of beneficiaries

Descriptives							
Communities	N	Mean	S. D	Std. Error	Coefficient of variation	Min.	Max.
Malayarayar	69	2.326	.4213	.05071	0.181	1.050	3.650
Urali	34	2.395	.3111	.05336	0.130	1.867	2.900
Kurichyar	62	2.448	.2955	.03753	0.121	1.883	3.367
Paniyar	68	2.102	.3019	.03661	0.143	.800	2.683
Eravaller	45	1.503	.2652	.03953	0.176	.917	2.133
Irular	94	1.975	.3185	.03285	0.162	1.267	2.750
Total	372	2.123	.3189	.02260	0.150	.800	3.650

Source: Sample Survey Data

Table 6.11a elucidates the inter-community differences in the satisfaction level of tribal households towards the services getting from the government. The Coefficient of Variation of the Malayarayar community (M = 2.325, S. D = 0.421, C. V = 0.181) showed there were strong disparities between the families within the community in the satisfaction level of government services. But, the Kurichyar community expressed the lowest inequalities (M = 2.448, S. D = 0.295, C.V = 0.121) between the families within the community in the satisfaction level on the services getting from the government. The Kuichyar and Malayarayar communities are progressive tribal groups, but they showed opposite opinions in the analysis. Moreover, Eravaller (M = 1.503, S. D = 0.265, C.V = 0.176) and Irular (M= 1.975, S. D= 0.318, C.V = 0.162) communities in the Palakkad district were less satisfied in the government services.

Table 6.11b One-way ANOVA

ANOVA					
Satisfaction level of respondents					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1386.547	5	277.309	46.638	.000
Within Groups	2176.236	366	5.946		
Total	3562.782	371			

Source: Sample Survey Data

Table 6.11b indicates the result of the One-way ANOVA Test. It reveals there were statistically highly significant differences between tribal communities in the satisfaction level of services getting from the government at 5 per cent significance level when $F(5, 366) = 46.638$ at $P = 0.000$.

Table 6.11c Inter community disparities on the satisfaction level of tribal households

Multiple Comparisons						
Dependent Variable: Satisfaction level of respondents						
Tukey HSD						
(I) Community	(J) Community	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Malayarayar	Urali	-.069260	.068595	.875	-.26578	.12726
	Kurichyar	-.122273	.057287	.272	-.28639	.04185
	Paniyar	.224379*	.055940	.001	.06412	.38464
	Eravaller	.822891*	.062728	.000	.64318	1.00260
	Irular	.350840*	.051897	.000	.20216	.49952
Urali	Malayarayar	.069260	.068595	.875	-.12726	.26578
	Kurichyar	-.053013	.069862	.874	-.25316	.14713
	Paniyar	.293638*	.068762	.000	.09664	.49063
	Eravaller	.892150*	.074389	.000	.67903	1.10527
	Irular	.420099*	.065515	.000	.23241	.60779
Kurichyar	Malayarayar	.122273	.057287	.272	-.04185	.28639
	Urali	.053013	.069862	.874	-.14713	.25316
	Paniyar	.346652*	.057486	.000	.18196	.51134
	Eravaller	.945164*	.064111	.000	.76149	1.12883
	Irular	.473113*	.053560	.000	.31967	.62656
Paniyar	Malayarayar	-.224379*	.055940	.001	-.38464	-.06412
	Urali	-.293638*	.068762	.000	-.49063	-.09664
	Kurichyar	-.346652*	.057486	.000	-.51134	-.18196
	Eravaller	.598512*	.062910	.000	.41828	.77874
	Irular	.126461	.052117	.150	-.02285	.27577
Eravaller	Malayarayar	-.822891*	.062728	.000	-1.00260	-.64318
	Urali	-.892150*	.074389	.000	-1.10527	-.67903
	Kurichyar	-.945164*	.064111	.000	-1.12883	-.76149
	Paniyar	-.598512*	.062910	.000	-.77874	-.41828
	Irular	-.472051*	.059344	.000	-.64206	-.30204
Irular	Malayarayar	-.350840*	.051897	.000	-.49952	-.20216
	Urali	-.420099*	.065515	.000	-.60779	-.23241
	Kurichyar	-.473113*	.053560	.000	-.62656	-.31967
	Paniyar	-.126461	.052117	.150	-.27577	.02285
	Eravaller	.472051*	.059344	.000	.30204	.64206

*. The mean difference is significant at the 0.05 level.

Source: Sample Survey Data

The result of the Tukey Post-Hoc test elucidates in Table 6.11c. It revealed the pair of some tribal communities expressed significant differences in the level of satisfaction from the government services. They were Malayarayar and Paniyar ($P = 0.001$), Malayarayar and Eravaller ($P = 0.000$), Malayarayar and Irular ($P=0.000$), Urali and Paniyar ($P = 0.000$), Urali and Eravaller ($P = 0.000$), Urali and Irular ($P = 0.000$), Kurichyar and Paniyar ($P = 0.000$), Kurichyar and Eravaller ($P = 0.000$), Kurichyar and Irular ($P = 0.000$), Paniyar and Eravaller ($P = 0.000$). However, the pair of some tribal communities like Malayarayar and Urali ($P = 0.875$), Malayarayar and Kurichyar ($P = 0.272$), Urali and Kurichyar ($P = 0.874$) and Paniyar and Irular ($P = 0.15$) showed similar satisfaction level in the services getting from the government.

In detail, the majority of tribal families were less aware of various government schemes, and they were highly dissatisfied in the performance of sources of information. Most of the tribal families were dissatisfied in the poor performance of Oorukoottam due to failure in the decision-making process. In Palakkad, there was no Oorukoottam meeting among the Eravaller community due to the lack of initiatives of responsible authorities. The Irular community in Attappady conducted the Oorusamithi meeting under the National Rural Livelihood Mission instead of Oorukoottam. When half of the tribal families satisfied in the selection process of beneficiaries, the others were highly dissatisfied. Most of the tribal families, especially Kurichyar, Malayarayar, and Urali families, were satisfied in the approaches of the officials in various government departments. But, the Paniyar, Eravaller, and Irular families were dissatisfied in the approaches of government servants due to their

misbehaviours. Consequently, they have hesitated to go to government offices.

The field inferences showed the service network system in the tribal areas was dysfunctional, especially the performance of Oorukoottam and the services getting from promoters and ward members. The promoters carry out a vital role in the progressiveness of tribal families as an intermediary between various government departments and aboriginals. But most of the tribal families were highly dissatisfied in the official performance of the promoters and ward members. Except for Eravaller families, most of the tribal families were satisfied in the performance of the Tribal Development Department. Because of the borderland of Tamil Nadu and Kerala as well as the segregation of hamlets among the non-tribes, they did not get proper attention from the government. Presently, the department has opened a new TEO office in Muthalamada. The majority of Eravaller and Irular families were highly dissatisfied with the performance of the LSGIs. Because of the corruption in the selection process of beneficiaries as well as the over-involvement of political parties in the implementation process of various schemes under the Panchayath.

The majority of tribal families were highly satisfied with the performance of the Kerala State Electricity Board. But most of the tribal farmers were highly disappointed in the services getting from the Agriculture Department. Moreover, the majority of tribal families were highly dissatisfied with the amount of fund allocation and lack of proper monitoring and evaluation during the implementation period of various projects. The higher officials in the Administration Wing of the Tribal

Directorate informed every year they collect the expenditure details of TSP from the District Tribal Offices. Other than this, there was no district-wise follow-up or monitoring of project implementation under TSP plans. The Tribal Directorate and State Planning Board have no role in the formation of various schemes for tribal development programmes under LSGIs. The Working Committee Groups in Panchayath decides the schemes for tribal development. And also, there were no provisions for monitoring the programmes under LSGIs by the Tribal Directorate or the State Planning Board at the state level. Even though there is a provision for the District Tribal Officers for evaluating the effectiveness of the tribal development schemes under the LSGIs, in practice, it is not effective.

6.4.2b. Factors influencing the satisfaction level of tribal households in various tribal development programmes

The *Ordinal Logistic Regression Analysis* used for critically assessing the role of various factors influence the satisfaction level of tribal families in the services getting from the government. The econometric model was applied to predict an interaction between the ordinal dependent variable and other independent variables. We used the Cumulative Logit Model for analysing the variables due to the responses of the ordinal variables were more than three. In this model, “Level of satisfaction” represents the ordinal dependent variable and independent variables are types of tribal communities, educational status of the tribal members, job-status of the tribal household, membership in organisational activities, and party membership. The model explains how these independent variables influenced the level of satisfaction of tribal members in the services getting from the government.

Table 6.12a Result of Karl Pearson’s chi-square test

Goodness of Fit^a			
	Value	Df	Value/df
Deviance	188.509	408	.462
Scaled Deviance	188.509	408	
Pearson Chi-Square	2100.703	408	5.149
Scaled Pearson Chi-Square	2100.703	408	
Log Likelihood ^b	-132.999		
Akaike’s Information Criterion (AIC)	307.998		
Finite Sample Corrected AIC (AICC)	310.638		
Bayesian Information Criterion (BIC)	390.295		
Consistent AIC (CAIC)	411.295		

Dependent Variable: Level of satisfaction

Model: (Threshold), Community, Educational status of household, Job status of Household, Membership in organisational activities, Party membership

a. Information criteria are in smaller-is-better form.

b. The full log likelihood function is displayed and used in computing information criteria.

Source: Sample Survey Data

The goodness of fit explains how well the model fit for analysis. The value 5.149 of the Pearson’ Chi-square revealed the overdispersion of cases/subjects.

Table 6.12b Result of Parameter test

Omnibus Test^a		
Likelihood Ratio Chi-Square	df	Sig.
159.885	18	.000

a. Compares the fitted model against the thresholds-only model.

Source: Sample Survey Data

The Likelihood Ratio of the collective independent variables showed the P-value (P=.000) was highly significant at 5 per cent

significant level. Thus, the final model was statistically fit for analysis and able to give better predictions.

Table 6.12c Parameter Estimates of OLR Model

		Parameter Estimates			Hypothesis Test		
Parameter		B	Std. Error	Wald Chi-Square	df	Sig.	Exp (B)
Thres hold	Highly dissatisfied=1	-5.882	1.3833	18.082	1	.000	.003
	Somewhat dissatisfied=2	.628	1.2064	.271	1	.603	1.874
	Satisfied=3	6.227	1.2982	23.004	1	.000	506.06
Kurichyar =5		.979	.5101	3.681	1	.051	2.661
Paniyar =2		-.102	.5448	.035	1	.852	.903
Eravaller =1		-4.126	.7622	29.305	1	.000	.016
Irular =3		-2.058	.4216	23.830	1	.000	.128
Urali = 4		-.206	.5465	.142	1	.706	.814
Malayarayar = 6		0 ^a	.	.	.	.	1
High School =3		.755	.6720	1.262	1	.261	2.127
HSS/ Pre-Degree =4		.441	.7116	.383	1	.536	1.554
Post-Graduation = 7		1.065	1.3535	.619	1	.432	2.900
Degree=6		.836	.7697	1.180	1	.277	2.307
B.Tech/MBBS=8		-1.096	1.0866	1.017	1	.313	.334
ITI/Diploma= 5		.144	.8454	.029	1	.864	1.155
UPS= 2		-.056	.7325	.006	1	.939	.945
Illiterate=0		.985	.8285	1.415	1	.234	2.679
LPS=1		0 ^a	.	.	.	.	1
Cultivator = 3		.710	1.0183	.486	1	.486	2.033
Govt. Job =4		.639	1.0453	.374	1	.541	1.895
Labour=1		.749	1.0015	.559	1	.454	2.115
Self-Employment=2		0 ^a	.	.	.	.	1
Organisational member=1		1.020	.3718	7.519	1	.006	2.772
No Organisational member=0		0 ^a	.	.	.	.	1
Party membership=1		.212	.3977	.285	1	.594	1.236
No Party membership=0		0 ^a	.	.	.	.	1
(Scale)		1 ^b					

Dependent Variable: Level of satisfaction

Model: (Threshold), Community, Educational status of household, Job status of Household, Membership in organisational activities, Party membership

a. Set to zero because this parameter is redundant.

b. Fixed at the displayed value.

Source: Sample Survey Data

Table 6.12c represents the Parameter Estimates of the econometric model. It analysed how the independent variables influence the satisfaction level of tribal households in the services getting from the government. The dependent variable in the analysis represented "the satisfaction level of beneficiaries in the services getting from the government authorities". It also divided into five ordered categories such as 1= Highly Dissatisfied, 2= Somewhat dissatisfied, 3= Satisfied, 4= Somewhat satisfied, and 5= Highly satisfied. Likewise, the factors/intercepts in the model as (a) "Community" has six groups: 1= Eravaller, 2= Paniyar, 3= Irular, 4= Urali, 5= Kurichyar and 6= Malayarayar; (b) "Educational status of tribal household" has eight groups: 0=illiterate, 1= LPS, 2= UPS, 3= High school, 4= HSS/Pre-Degree, 5= ITI/Diploma, 6= Degree, 7= Post Graduation, 8= BTech/MBBS; (c) "Job-status of the tribal household" has four groups: 1= Labour, 2= Self-employment, 3=Cultivator, 4= Govt Job; (d) "Membership in Organisational activities" has two divisions: 1= Yes, 0= No; (e) "Membership in Political party" has two divisions: 1= Yes, 0= No.

The Wald Test described the statistical significance of the independent variables used in the Parameter Estimates. It explains that the Eravaller (P =.000) and Irular (P =.000) communities and membership in the organisational activities (P =.006) significantly added to the model at 5 per cent significance level. Similarly, the Kurichyar community (P=.051) marginally added to the model at 10 per cent significance level. However, the other communities like Urali (P = 0.222) and Paniyar (P = 0.706) rejected from the model at 5 per cent significance level. Likewise, the Educational status of tribal households, Job-status of tribal households, and Political party membership (P = 0.594) also rejected in the parameter

test at 5 per cent significance level. It means that only the membership in organisational activities has an influential power in the satisfaction level of tribal households in the government services than the other independent factors.

The Parameter Estimates showed that the tribal families who obtained membership in organisational activities were more satisfied in the government services than any other tribal families. Among six tribal communities, Malayarayar selected as the basis of the analysis. Furthermore, Urali and Paniyar communities excluded from the analysis, without satisfying the significant level of Wald Test. The test revealed the Kurichyar community was 2.661 times more likely to be satisfied than the Malayarayar community. But, the Eravaller ($B = -4.126$; $E(B) = 0.016$) and Irular ($B = -2.058$; $E(B) = 0.128$) communities were less satisfied with the government services than Malayarayar community. Moreover, the tribal families possessed organisational membership were 2.772 times more likely to be satisfied in government services than the families did not obtain organisational membership.

Test summary

The Ordinal Logistics Regression Analysis (Table 6.13) method helped for determining the influential role of internal forces in the satisfaction level of tribal households in government services. The internal forces were the community, educational status of the family members, job-status of tribal households, membership in organisational activities, and political party membership. The Omnibus Test showed the model was highly significant (Likelihood Ratio = 159.885 when $P = .000$)

at 5 per cent significance level. The odds of the Kurichyar community indicated they were 2.661 times more satisfied in government services than the Malayarayar community at 10 per cent significance level when the Wald Test $\chi^2(1) = 3.681$ when $p = 0.051$. When compared to the satisfaction level of Malayarayar, the deprived tribal groups like Eravaller was 0.128 time more satisfied with the services getting from the government at 5 per cent significance level, when $\chi^2(1) = 29.305$, $p = 0.000$. Moreover, the moderate tribal groups like Irular was 0.128 time more satisfied in the government services than the progressive communities like Malayarayar at 5 per cent significance level when $\chi^2(1) = 23.83$, $p = 0.000$. The Parameter Test also pointed out the tribal families engaged in organisational activities were 2.772 times more satisfied in the services getting from the government at 5 per cent significance level when $\chi^2(1) = 7.519$, $p = 0.006$.

According to the Ordinal Logistic Regression Analysis, only the organisational membership of the tribal families influenced the satisfaction level of the tribal households in government services. The institutional engagements were much higher in some tribal areas or among some tribal communities. Most of the tribal families in deprived groups like Paniyar and Eravaller communities were inactive in organisational activities like Kudumbasree. But, in the case of other tribal groups, the majority of tribal families engaged in Kudumbashree, MGNREGA, various JLG groups under farmers' committee, etc. In the case of Irular communities in Attappady, their institutional network is extremely strong, even though they belong to moderate tribal groups. They have received social exposure through various institutional activities

like NRLM, MGNREGA, Kudumbashree, etc. In short, tribal members need to promote their capabilities through institutional networks and associationism. It will lead to improving service delivery in the tribal areas.

Since 1974, the Union and State Ministries have been allocating huge amounts of funds for tribal development and welfare programmes in the state. However, when compared to the general population, the deprivation rate of the Scheduled Tribes is very high even though their number is too low. It indicates the functional inefficiency of the current institutional mechanism of tribal governance in the state. Thus, the inferences obtained from Chapter 6, is useful for highlighting the democratic engagements and institutional functioning of tribal development programmes in the state. The *Top to Bottom Level Approach* of the Tribal Development Department was not much effective in the tribal areas because of the unilateral nature of the decision-making process. Often, it did not give the expected results after the project execution due to not understanding the needs of the tribal population. Therefore, the *Bottom to Top Level Approach* is more effective in tribal development programmes. Although Oorukoottam has started based on this approach, it has not been more effective due to lack of interest of concerned authorities.

Oorukoottam is a traditional form of democracy among tribal communities and it has a higher potential of local democracy. Moreover, it promotes the democratic decision-making process and democratic culture among the tribal population. Hence it can strengthen the

citizenship and the engagements of tribal communities. Oorukoottam also acts as a negotiation forum for decision-making processes, implementation, and in selecting the list of beneficiaries for different schemes. However, the study found that the democratic platforms of the tribal communities were dysfunctional, and the concerned authorities did not take any initiative for strengthening it. The weakening of tribal democracy will adversely impact the negotiation potential of the tribal communities, and they will not get the services they deserve. Yet, any movements did not emerge from the tribal community to support the democratic process. It indicated *the lacunae in social capital as well as the lacunae in the cultural capital* of the tribal population. In short, the study pointed out the failure in the institutional networks of the governing system. It indicated the failure in the services of Oorukoottam, Tribal Promoters and, Ward Members that negatively affected the awareness of various schemes of tribal members. The information asymmetry was extremely high among the tribal communities, especially in deprived tribal groups. The lack of information and awareness about various schemes for tribal developments will adversely affect its effectiveness by the ways of the wrong selection of beneficiaries.

The One-way ANOVA test about the inter-community and inter-community disparities between the tribal communities in the awareness about education and health schemes and the governing institutions in the localities stated that the progressive and deprived tribal groups showed significant differences in the knowledge level. Moreover, the regression analysis showed that the educational status of family members, membership in organisational activities, and membership in political

parties possessed influential roles on tribal members in the awareness about various schemes. It could be observed in the disparities between the advanced and deprived tribal groups in educational status, social interactions of the community members, and availability of various government services. When compared to Kurichyar and Malayarayar communities the other communities, especially Paniyar and Eravallar, had weak negotiation potential and low influential power on decision-making in the Oorukoottam meeting. It is evident that the lacunae of social capital/inaccessibility of public exposure created huddles in the social transformation of these tribal communities. It will be generated two strata of socio-economic development within the tribal population. Briefly, the overall observations of the study highlighted that the knowledge and organisational capabilities have pertinent roles in the availability and awareness of various government schemes. Hence, it is the responsibility of the government to execute various strategies to bridge the gap in service deliveries through contextual interventions in issues among various tribal communities.

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FINDINGS, CONCLUSION AND POLICY SUGGESTIONS

- 7.1 *Major Findings*
- 7.2 *Conclusion*
- 7.3 *Policy Suggestions*
- 7.4 *Contribution of the Researcher*
- 7.5 *Areas for Future Research*

Chapter-7 outlines the key findings of the study with suggestions for improving the effectiveness of tribal development programmes in the state. The study on the "Tribal Sub Plan on Human Capability formation of Tribal Community in Kerala" sought to understand the inter-community disparities between the tribal communities in their human capabilities based on the development programmes under the Tribal Sub Plan. Hence, the six tribal communities were divided into three categories according to their socio-economic statuses, such as advanced, moderated and deprived groups for effective micro-level analysis.

Chapters 3-6, analysed various dimensions of tribal development programmes in the state. The demographic profile of the tribal communities has given an overall picture of the tribal households such as family size, marital status, etc. It revealed the inter-community disparities

about the demographic features of tribal families. The demographic data also helped to make a comparison between the population statistics, and the availability of infrastructure facilities in tribal houses and hamlets in the next Chapter-4. The study identified that there were strong contradictions between the population statistics of each tribal community and the availability of infrastructure facilities in their localities. Moreover, it has pointed out the inter-community and intra-community differences in the distributions of infrastructure facilities in the tribal houses and hamlets, especially between progressive and deprived tribal groups. It helped to understand the role of infrastructure facilities in the capability formation of the tribal population, especially in education and health. Thus, in the next Chapter - 5, we targeted to analyse the education, health, and livelihood attainments of tribal members based on the availability of infrastructure facilities. It revealed that the progressive communities held better education, health, and livelihood options than moderate and deprived tribal groups. Moreover, the study also indicated that the education, health, and economic status of deprived tribal groups were extremely poor. The lack of awareness about various schemes/projects of the government has impacted the socio-economic development of deprived tribal groups. Accordingly, in chapter-6, the study analysed the role of institutional networks of the governing system in tribal regions. It identified that the traditional demographic form of Oorukoottam was dysfunctional, and the majority of tribal households were dissatisfied in the service delivery of para-workers like tribal promoters and ward members. Finally, this chapter includes the key findings of the study, conclusion, suggestions, contribution of the researcher, and areas for subsequent research.

7.1 Major Findings

The study identified there were no remarkable differences between the sex ratios of the tribal communities. However, the population proportion of females in the age group 0-15 was less among the tribal communities, especially in the Malayarayar, Urali, and Paniyar communities. But the female population ratio was higher in the age group above 65 than the ratio of the male population. Moreover, there was a sudden fall in the male ratio in the age group 35-45 after a steady growth rate of the male population. It was the outcomes of the over-consumption of substances like tobacco, alcohol, etc. Also, it found that the ratio of widows was higher among the tribal communities, especially in the age group 26-45. Consequently, the number of women-headed families increased, particularly among Irular and Paniyar communities. Furthermore, it imposed more financial burdens on women in families and forced them to find new sources of income.

The majority of tribal families were lived in the nuclear family system, except some Kurichyar, Paniyar, and Eravaller families. It showed the '*reflection of the deprivation*' among the disadvantaged tribal communities while the Kurichyar showed the '*reflection of the tradition*'. Some Paniyar and Eravaller communities selected the joint-family system because of landlessness and poverty.

The deprived tribal communities like Paniyar indicated the largest family size when the progressive tribal groups like Malayarayar showed the smallest family size. The joint-family system led to an increase in the average family size of the Paniyar community. But, the decline in the

average family size of the Malayarayar community was the outcome of the migration of younger generations to townships to obtain more basic amenities and job opportunities.

The Paniyar community indicated the highest Total Dependency Ratio (TDR), while the Malayarayar showed the lowest TDR. The highest TDR indicated the economic instability and financial insecurities among Paniyar families because of the increases in the number of family members in the unproductive age groups. Moreover, the Malayarayar communities revealed the highest Aged Dependency Ratio (ADR) and the lowest Child Dependency Ratio (CDR). The highest ADR represents the reflection of the standard of living and wealth of the Malayarayar families. Nothing but, the lowest CDR pointed out the declining trend of the child population in the age group 0-14 among the Malayarayar community. The higher CDR of the Paniyar community was the result of illiteracy, poverty, unawareness about health measures, etc.

The majority of tribal families represented the BPL categories. It is worth mentioning that those tribal families who had merely less than 5 cents of lands and the families possessed more than one acre of lands with relatively better basic amenities were equally considered as BPL categories. It will cause a negative impact at the time of beneficiary selection of various schemes.

The data on landlessness indicated the absolute landlessness was comparatively rare among the tribal families. But, the joint-family system of the deprived tribal groups revealed the landlessness and house-lessness among them. Moreover, the majority of tribal families in the moderate

and progressive tribal groups had at least 50 cents to 4 acres of agriculture land. Additionally, the Gini coefficient and Lorenz Curve explained that there were significant inter-community and intra-community disparities between the tribal communities in the land distribution. Moreover, only the Malayarayar families had relatively equitable land distribution within the community when compared to other tribal communities. It was the outcome of the restriction of land encroachments of non-tribes through personal ownership of lands.

The majority of tribal families had only the possession certificate instead of the title deed even though they have been holding lands for many years, especially the Malayarayar and Urali families. The Forest Department objects to providing title deeds on tribal lands because of the lands placed in the forest areas. It is worth mentioning even the migrants received title deeds for their encroached-lands in the tribal areas through constant negotiations with the government. It revealed the absence of negotiation potential and the lack of political power of tribal communities in the state. Moreover, the lack of availability of title deeds negatively impacted on their economic freedom, livelihood options, financial securities, etc.

The majority of progressive and moderate tribal families inherited the lands from their ancestors. But, the deprived tribal groups like Paniyar and Eravaller families only received the assistance of 3-5 cents of housing-land from the Tribal Department, Forest Department, LSGIs, and Revenue Department. The disparities in the land distribution of tribal communities highlighted the nature of structural inequities existing

between diverse tribal communities. Moreover, the study underscores the fact that the land has an influential role in the inter-generational transformation and social mobility of progressive tribal communities. Also, it acts as a triggering factor in the capability formation of the tribal population by the ways of creating educational attainments, employment opportunities, etc.

Except for the deprived families like Eravaller and Paniyar, the majority of tribal families had received agriculture income from their lands. And most of them were cultivated cash-crops rather than traditional crops. The study revealed that the income from cash crop cultivation promoted the socio-economic, education, and health status of tribal communities, especially Malayarayar communities. In the case of Urali and Irular communities, the lack of quantity and quality of agriculture products adversely affected their agriculture income due to the geographical isolation and topography of lands. The majority of their agricultural lands were located in steep rugged terrain or near to the forest lands.

The Plan Outlay and Expenditure for the housing schemes under the TSP in the state during the period 1985-2017 showed that 611.78 crores allocated for plan outlay and spent 601.74 crores for housing construction in this period. During the period 1985 to 2008, the funds were distributed in a normal growth rate. Later, the Plan Outlay and Expenditure for housing construction have shown a sudden hike in the fund distribution up to 2017.

There were significant disparities between the tribal communities in the housing facilities. Except for Paniyar and Eravaller families, most of

the tribal families lived in pucca/semi pucca houses. The majority of Paniyar and Eravaller families stayed in dilapidated or liveable or semi-finished houses. The semi-finished houses were the consequence of the universal policy for allocating funds for housing construction without considering the geographical isolation and transportation difficulties. Moreover, cheating from intermediaries like contractors/agents, political influences in the selection of beneficiaries, particularly in LSGIs schemes, poverty, etc. also adversely affected the effectiveness of housing construction of tribal families.

The majority of tribal families received financial assistance from the Tribal Development Department or LSGIs for housing construction. Most of the tribal families concreted roofs of houses. But, some of them were dilapidated because of the poor quality of work or constructed many years back. The majority of tribal houses constructed the wall with cement bricks and used cement/cow dung for flooring. However, some Kurichyar families constructed traditional eco-friendly houses with natural materials getting from the localities. But, the government did not provide any financial assistance to them because of not satisfying the universal criteria of the housing construction.

The study found that there were significant differences between the tribal communities in the housing facilities and the availability of basic amenities in the houses. The study proved the mismatching of the family size and house size/number of rooms of tribal households, especially in the case of Eravaller and Paniyar communities. In some cases, more than 10 members lived in B2HK houses because of landlessness to build new

houses. Therefore, it is essential to mention that the average space for an individual within the house is an essential criterion of the quality of life. But, the current housing policies showed that the government did injustice to the tribal families in the fixation of housing size without considering the family size. It underscores the relevance of flexibility in the housing policies of the state, particularly in the case of tribal communities. The AHADS model of housing construction in Attappady, according to the family size of tribal communities, could be replicable in all over Kerala.

The majority of tribal families had toilets and electricity facilities, especially in Malayarayar, Urali, and Kurichyar houses. The tribal families depended on various water sources like well, streams, Jalanidhi projects, etc. However, most of the tribal families faced water scarcity during summer seasons, particularly in Paniyar, Eravaller, and Irular communities. In Attappady, because of water scarcity, some Irular families were depended on contaminated stream water for drinking purposes.

The data elucidated a promising picture of road accessibility and transportation facilities in the tribal localities. The majority of tribal hamlets had better road connectivity, except some steep, hilly areas of Urali families and the interior-remote areas of Malayarayar and Kurichyar families. It observed that even the families in the advanced tribal groups possessed a backward status only because of the geographical isolation of household lands. It also underscores that along with the social deprivation, the geographical isolation leads tribal communities to the deprivation. Hence, the government needs to include additional criteria

like geographical isolation for providing preference to the selection of beneficiaries in the tribal development programmes.

In Kerala, during the period 1985-2017, the Union and State ministries allocated 5513.57 crores as annual budget provisions for tribal development under the Tribal Sub Plan and spent 4657.36 crores. From 1985-1995, there was no significant difference in the disbursement of funds. But, it showed gradual increases in the budget allocation of the Tribal Sub Plan since 1995.

The educational schemes under the Tribal Sub Plan created revolutionary changes in tribal education in the state. It made remarkable transformations in the younger generations in the tribal communities. The Tribal Development Department mainly focused on school-level education than higher education. The functions of the Multi-Grade Learning Centres in remote tribal areas, Model Residential Schools, pre-matric hostels, stipends, etc. made prominent changes in the schooling of tribal students. It reduced the dropout rate and increase the enrolment ratio of the tribal students at the school level. However, the study proved the dropout rate of school-going students among the deprived communities was higher. Moreover, the dropout rate of tribal students, particularly among Paniyar and Eravaller communities was higher in HSS.

The study showed the stagnancy of educational mobility of tribal students after SSLC or Higher Secondary level. When compared to the participation rate of tribal students in the Higher Secondary courses, the number of students joined for the higher education courses was low. It

was the outcomes of the failure in higher secondary examinations or going for any jobs due to poverty. It is worth mentioning the participation rate of tribal students in technical and professional education was too low. The backwardness of tribal students in higher education was explicitly seen in the case of Paniyar and Eravaller communities.

The majority of tribal students studied in the government or aided schools in the nearest localities of tribal hamlets. However, some Paniyar and Eravaller students faced difficulties to reach the schools due to the lack of travelling facilities and long-distances. The Gothrasarathi facilities were extremely helpful for the school-going students who lived in isolated geographical locations. However, the dropouts among tribal students have increased because of language problems, negative approaches of teachers, misbehaviours from classmates, poverty, lack of responsibility of parents, etc., especially among the school going children of Paniyar and Eravaller communities.

The Union and State ministries allocated 1,304.8 crores and spent 1,078.75 crores for tribal education under the Tribal Sub Plan during the period 1985-2017. There was a steady growth rate in the fund allocation of tribal education since 1989. It is worth mentioning the TSP programme has succeeded to an extent in the universalisation of educational opportunities to tribal students from primary level to secondary level in the state. However, there were some gaps in tribal education schemes in shaping the capabilities of deprived tribal communities.

The majority of the tribal population depended on government health service system, particularly the Primary Health Centres for a

primary check-up. The tribal communities in Wayanad and Idukki districts mainly depended on neighbouring districts for the check-up of severe health issues due to lack of speciality hospitals in these districts. Therefore, it makes a lot of difficulties for the health protection of tribal members in isolated areas.

The PHCs regularly conducted monthly medical check-ups in the majority of the tribal areas and comparatively good numbers of tribal members doing a primary check-up. The services of para-medical workers in tribal areas such as Health workers and ASHA workers were comparatively better in the tribal areas, except among Eravaller and Irular communities in Palakkad district.

The services of Anganwadies in the tribal areas were comparatively good, except in a few areas. They provided services at the grass-root level in a distributive nature. Moreover, they collected the overall information of the tribal families living in the Anganwadi areas for various official purposes.

During the period 1985-2017, the Union and State ministries allocated 149.14 crores and spent 152.07 crores for the tribal health sector. From 1985-94, the government spent the same proportion of amount for health services in the tribal areas. Later, the government did not care about the health status of tribal communities. But, from the 12th Five-Year Plan onwards, they have started a lot of health schemes for tribal population in the state. However, because of the inefficiency of sources of information, the majority of tribal members were not aware of tribal health schemes.

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Generally, even though the nature of the workforce in Kerala has shifted from the agrarian to the non-agrarian sector, the majority of the tribal workforce depended on the agriculture sector for livelihood assistance. It is also worth mentioning that the inequality between the tribal communities in the work-nature in the agriculture sector due to landlessness. It indicated the deprived community members were agriculture labours when the other community members were farmers.

The MGNREGA performs a pivotal role in the livelihood options of the tribal communities in the state. Most of the tribal families depended on MGNREGA as a principal or subsidiary occupation. Because of the special package of 200 working days in Attappady, the majority of the Irular families depended on MGNREGA than other labouring works.

The study identified significant differences between the tribal areas in the wage rate of labouring works in the agriculture sector. When compared to other tribal communities, Eravaller community only received the lowest wage rate, in between 250-375 rupees in agriculture labour works. In the case of female labours received a maximum of 180 rupees

per day for six/seven hours jobs. Because of the lack of job opportunities, the fewer numbers of working days and the influx of immigrant labours they were forced to work on agriculture lands at cheap wage rates.

The numbers of permanent employees in the government services were comparatively low among the tribal communities, particularly in Paniyar and Urali families. The majority of government employees were progressive tribal communities, especially in the Malayarayar community. It indicates that the deprived tribal groups need more training programmes from the Tribal Development Department for obtaining jobs in government services.

The Oorukoottam is the traditional democratic form of tribal communities in the state, like a Grama Sabha for the general population. The majority of tribal families were highly dissatisfied in the performance of the Oorukoottam due to the failure of implementing Oorukoottam decisions in the project implementation process. Moreover, in some tribal areas, Oorukoottam was completely dysfunctional, especially among Eravaller communities. The weakening of Oorukoottam at the grass-root level will make negative implications on the democratic process in the decision-making and negotiation potential of tribal communities with the government.

Except in Wayanad, the services of tribal promoters in other districts were not much satisfactory because of lack of field visits, corruption, failure to exchange information at the right time, etc. It was the results of the poor selection process of tribal promoters, lack of

continuous orientation and training programmes, and the absence of systematic monitoring of tribal promoters.

The majority of tribal families were less aware of education and health schemes under the Tribal Sub Plan due to the asymmetry of information in the tribal areas. Also, there were inter-community and intra-community disparities in the awareness of various tribal schemes. Moreover, the Educational status of family members and Membership in political parties influenced tribal families in the knowledge about education and health schemes. The study found that the advanced communities were more knowledgeable about various schemes than the deprived tribal groups, and also, they maintained a better relation with political parties. Hence, it has made larger implications on the social mobility of progressive tribal groups like Malayarayar and Kurichyar communities.

Most of the tribal families were not much satisfied with the services getting from the government. Moreover, the tribal families had significant levels of inter-community and intra-community disparities in the satisfaction level of various services getting from the government. The Kurichyar families showed comparatively better satisfaction levels on government services, while Eravaller families expressed the highest dissatisfaction on government services. The study also found membership in organisational activities had an influential role in the satisfaction level of tribal families on various government services.

7.2 Conclusion

The study showed that the evolution of tribal development programmes and the execution of the Tribal Sub Plan in the state induced spectacular changes in the lives of tribal communities in Kerala. Despite the recurring economic crisis in the state, the government has been able to formulate, implement, and manage various tribal development projects under the TSP without any interruption. Moreover, the centralized activities of the Tribal Sub Plan under the Tribal Development Department became more democratic after the inclusion of decentralisation. Furthermore, a portion of the TSP Fund of the State Government has been allocating to the Annual Budget of Local- Self Government Institutions according to the population proportion of tribal families in their jurisdiction for the tribal development activities. In such a situation, it is necessary to mention the role of LSGIs for remedying the local problems through the proposed area plan rather than focusing on the macro-level issues. It is worth mentioning the government departments implement the TSP schemes in a centralised manner when LSGIs follows a three-tier system in the implementation of TSP schemes under decentralisation. Besides, the institutional networks of various government departments like the Health Department, Social Security Department, Forest Department, etc. have contributed to making significant changes in the development scenario of tribal communities in Kerala.

The study found the tribal development programmes have made significant transformations in the education, housing, health, etc. of tribal communities in the state. It pointed out the housing status of tribal

families comparatively improved after implementing special housing schemes under TSP in the state, except some families. Moreover, tribal-centric education programmes succeeded in a limit in the universalisation of the educational opportunities till the secondary level. Also, the education-centric approaches of Multi-Grade Learning Centres started in the tribal education sector during the 90s, has helped to reduce the dropout rates of tribal students. Similarly, the Model Residential Schools under the Tribal Development Department have induced revolutionary changes in the academic attainments of tribal students. It is worth mentioning that a massive proportion of the education fund under the Tribal Sub Plan is utilised by the Tribal Department to provide grants and stipends, and for the maintenance and running of Model Residential Schools and Pre-matric and Post-matric hostels.

The data on the tribal health sector indicated the involvement of the state government to the medical services in the tribal areas improved at the grass-root level. The study revealed the majority of the tribal families, except Eravaller families, received better services from the paramedical workers of the Health Department. The services of the social security systems like PDS and Anganwadies were comparatively better in the tribal areas. However, in the case of the Eravaller community in Muthalamada Grama Panchayath, the Ration shop owners have done corruptions in the quality and quantities of serving food items. Because of fear, the majority of tribal people did not react to the unethical activities of the shop keeper.

The infrastructure facilities in the tribal regions were comparatively better except in geographically isolated and steep hilly areas. However, some families from the deprived tribal groups were homeless due to landlessness, and they lived in joint families. The absolute landlessness of tribal communities was only in a few deprived tribal families such as Paniyar and Eravaller. Moreover, it observed many semi-finished houses in tribal areas. It was the outcomes of poverty, cheating from contractors, etc. But, it worth mentioning that the housing program and policies under TSP have made tremendous changes in the housing status of tribal communities. The study highlighted a pleasing picture of the electrification and toilet facilities in the tribal areas. It is a fact that the Tribal Sub Plan has been performing an instrumental role in fulfilling the basic needs of the tribal population by assisting with education, health, housing, and infrastructure facilities. In this context, the recent projects of the Government of Kerala, such as the Life Mission for the housing sector, Ardrum Mission for the health sector, and Education Mission have developed significant improvements in the concerned sectors in the tribal areas, even if these are not special tribal programmes. It is noteworthy that the Life Mission programme improvised the housing status of tribal households, and the Ardrum Mission strengthened primary health care services and health systems in the tribal areas.

The achievements accomplished by the TSP in improving the lives of tribal communities in Kerala have appreciated despite there were many lacunae in the transformation of tribal communities. There were significant gaps between the advanced and deprived tribal communities in the socio-economic status and social capital formation. These disparities

were highly reflected in the land ownership, housing conditions, educational attainments, and occupational mobilities, etc. of deprived tribal communities when compared to progressive communities. The data showed that progressive communities like Malayarayar and Kurichyar attained the prime position in the development ladder when the deprived tribal families such as Eravaller and Paniyar reached the bottom position only. The moderate tribal groups such as Urali and Irular showed comparatively better development status than the deprived tribal communities. The study identified, because of the structural inequalities, the deprived tribal groups became failures to attain social mobility. It could be observed in the ownership of physical assets of deprived communities such as land ownership, housing, etc. The majority of Paniyar and Eravaller families held only less than 5 cents of nominal lands. In the case of deprived tribal communities, the lesser availability of lands created hindrance for income generation and extension of livelihoods. Consequently, it harmed their socio-economic mobility.

The study reveals the Tribal Sub Plan contributed a significant advancement in the capabilities of tribal communities through attainments in education and health. Nothing but, it failed to generate job opportunities and livelihood options for tribal members by introducing adequate changes in the traditional livelihood assistance, and employment plans. In most cases, these plans were typically prepared based on the universal approaches of mainstream societies rather than considering the traits, cultural context, and livelihood patterns of tribal communities. However, the livelihood options under the TSP have induced some changes in the lives of the progressive tribal groups, especially among

Malayarayar families. Furthermore, the livelihood programmes in the tribal regions indicated the majority of the schemes were either focusing on landowners or limited to the distribution of temporary consolations among tribal communities. The study revealed that the landholding tribal communities received long-term livelihood assistance in agriculture for sustainable development, while the deprived communities only got temporary assistance like cattle, fowl, etc. It indicated that the long-term sustainable livelihood approaches and programmes under the TSP have been unable to alleviate the landlessness of disadvantaged communities like Paniyar and Eravaller. Likewise, it is pertinent to mention that the virtues of progressive action such as the Forest Right Act, have not been percolating into the lives of deprived communities, due to landlessness. Hence, based on the tribal traits of each community and available resources in the localities, the government needed to formulate livelihood programmes to ensure sustainable income for tribal communities, particularly disadvantaged groups. Moreover, to reduce the inter-community disparities between in the socio-economic status of the tribal communities, the government has to be redefined the employment reservation system for tribal communities. The government should carry out appropriate decisions for providing more job opportunities in the government sectors to the deprived tribal communities in the state. It would ensure more participation of members from the deprived tribal communities in the government service.

The lacunae between the planning and implementation process of various schemes under the Tribal Sub Plan reflected in the study. After a survey conducted on the Socio-Economic status of Scheduled Tribes in

Kerala in 2008, the government did not organise any comprehensive surveys of tribal communities other than the Census 2011. It is a fact that even if the survey conducted by the Directorate of Scheduled Tribes with support of the Kerala Institute for Local Administration, the concerned authorities have been unused these comprehensive databases even in Panchayath levels as tools for planning of tribal development activities. It highlights the need for implementing the evidence-based planning system in tribal areas.

There were several limitations in the universal approach adopted by the Tribal Department of Kerala for the formulation and implementation of development and welfare schemes under the Tribal Sub Plan. The government needs to be taken distinctive approaches and policies for each tribal community by considering their status in physical assets and socio-economic attainments. However, this kind of approach is missing in the current planning process. The Tribal Development Department only divided the Scheduled Tribes in Kerala into three categories, such as deprived, moderate, and advanced based on certain criteria other than the Primitive Tribal Groups. The study points out that the progressive communities have been able to transform their standard of living from backward to advanced level with the support of their traditional empowerment and attainments from the government. But other communities are still lived in the backstages of progressiveness.

The study discloses that along with the landlessness and traditional socio-economic backwardness, geographical isolation is equally considered as a reason behind the lower socio-economic status of some tribal

communities. Hence, the policy-makers should consider the geographical isolation of house/hamlets as an indicator for giving more preferences to the distribution of financial assistance/selection of beneficiaries for various schemes. The issues faced by the tribes and their capabilities are different from individual to individual, community to community, and also region to region. Therefore, the concerned authorities need to formulate special approaches to execute the individual, household, and community wise programmes under the Tribal Sub Plan to enhance the capabilities of tribal communities. Moreover, with the help of household databases of tribal communities, the Tribal Development Department can develop an Individual Care Plan (ICP) for each family member and develop the Household Care Plan (HCP) from the Individual Care Plan. Correspondingly, the Hamlet Level Plan (HLP) and the Panchayath Level Plan (PLP) can develop from the Household Care Plan. From the Panchayath Level Plans, the government can formulate the District Level Plan (DLP) and State Level Plan (SLP). At the State and District level, the concerned authority should give more priority to the empowerment of deprived tribal communities based on their rate of poverty. Through this, the allotment of finance can be scientifically predesigned in a way that more financial assistance and schemes would give to the deprived communities. It will help the socio-economic transformation of the deprived tribal communities rather than existing non-scientific approaches.

There were notable differences between the tribal regions in the distribution of financial assistance and the services received from various government departments under the TSP. The tribal families lived in the tribal-centred regions received more benefits from the stakeholders than

the tribal households stayed in the segregated tribal lands along with the general population. In the case of Eravaller community, they comparatively received less assistance from the government when compared to the Irular community in Attappady in the upper part of the similar district. Because of the Eravaller communities lived in the bottom part of Palakkad district in the borderland of Kerala, especially in the segregated tribal lands with mixed habitations. Comparatively, the Irular community possessed better physical assets and educational status than the disadvantaged communities like Eravaller. However, government reports indicated that many tribal projects and programmes were implemented in Attappady than in Muthalamada. It indicates serious policy implications. Therefore, the findings of the study suggest the need for the implementation of special tribal development programmes to the segregated tribal communities living in the non-tribal majority areas. The study also points out the need for the opening of an extension office or special office in these regions. In the case of Muthalamada, a Tribal Extension Office started in 2016 for coordinating the tribal development activities. It has made notable changes in the lives of tribes in this region.

The study highlight that the tribal communities failed to become a political force or centre of negotiations with the state for acquiring their needs due to the terrible performance of the traditional democratic forums and lack of capabilities. It observed the Oorukoottam was dysfunctional in certain tribal areas or among some tribal communities, especially among deprived tribal groups like Paniyar, Eravaller, etc. It was the outcomes of the inter-community disparities in the formation and utilization of the social capital for the upward mobility of tribal members

and lack of awareness of tribal members about the functions of Oorukoottam. Hence, provisioning of powers to the traditional forums such as Oorukoottam is very relevant in the present context due to the absence of the implementation of PESA Act in Kerala. The legislative protections should be provided by the government for avoiding the violation of Oorukoottam decisions by various government departments and LSGIs.

The general findings of the study lead to the conclusion that the Tribal Sub Plan acts as an instrument for the transformation of the lives of tribal communities in the state. It significantly reflected in the attainments of educational qualifications, availability of infrastructure facilities, health achievements, etc. especially in the case of advanced tribal groups. However, these kinds of attainments have not been reflecting in employments and livelihood options of the tribal population other than progressive tribal groups like Malayarayar. The gap between the developed and the deprived tribal communities in the socio-economic status remained unresolved. Moreover, the Tribal Department implements the schemes and projects in the tribal areas only based on the primitive and non-primitive categories of tribal communities in the state rather than following the disaggregated approach based on the physical asset and capital holding capacities of tribal families. It is a major drawback of the policy formulation of tribal development programmes of the government. The structural inequities such as the fewer land ownership, low educational attainments, etc. have made negative implications on the capability formation and social mobility of deprived tribal communities. The geographical isolation of tribal areas also acts as a hurdle in the

socio-economic mobility and capability formation of members of certain tribal communities. Moreover, deprived tribal communities like Paniyar and Eravaller are traditionally living in miserable situations, and their socio-economic and cultural capital background was very vulnerable. While the government has been able to empower their basic needs to some extent, the existing projects and schemes have been unable to build their sustainable capability in terms of the capability frameworks. The absence of such a capability distribution based on long term sustainability has caused an increase in the deprivation rate among them. It to be done by promoting the asset capabilities of tribal communities through the distribution of lands. In this context, the findings of the study suggest that the strategies and approaches in the formation and implementation of the Tribal Sub Plan and other proposed schemes need to be redesigned based on the rate of economic deprivation, educational deprivation, health deprivation and geographical deprivation, and the contextual peculiarities of various tribal communities in Kerala. Moreover, the real empowerment among tribal communities merely happens when giving more importance to the development of households, and hamlets along with community development.

7.3 Policy Suggestions

The study proposes some recommendations to the government which relevant for the policy framework of various schemes, improve the tribal governance, and the extension of tribal development programmes in Kerala.

The Tribal Development Department and LSGIs should take the initiative for the preparation and updating of the Panchayath level E-data base of tribal communities in the state with the support of tribal promoters. It must include community and category of tribal households, demographic details of family members, occupation, other income sources, details about the availability of various schemes, details of infrastructure facilities, educational status and health details of family members, etc. The concerned authority should have to consolidate all these databases in a centralised manner under the control of an apex authority. Moreover, the government should ensure to provide the financial assistance of various schemes for each tribal community based on their developmental indicators of the recent E-data base at the Panchayath level.

The government needs to give more priority to the family size of tribal households, geographical isolation, and topography of the hamlets before distributing financial assistance to the tribal family for housing construction. It helps to reduce the number of semi-finished houses in the tribal regions. AHADS model of housing construction in Attappady can be replicable in all over Kerala.

The power of Oorukoottam should be reinforced in the hamlets with the support of educated youth along with the aged. The Tribal Department should take initiatives for reconstructing the traditional ruling method of the Scheduled Tribes as per the modern concepts. Moreover, the responsibilities in the tribal hamlets should be segregated to various sectors like education, health, infrastructure, livelihood, etc. and give

responsibilities of each sector to the members in hamlets. The TEOs or TDOs or Panchayath authorities should give freedom to these sectoral heads in the hamlets for contacting them for solving their hamlet issues. The authorities should ensure the participation of students in the associated activities for their capacity building. Additionally, the concerned authorities should seek support from external experts like academicians, professionals, officers, social activists, etc. for the formation of a mentoring committee for three or four hamlets. The learning by doing activities will support to enhance their social capabilities and public exposures, especially in the case of younger generations.

The government needs to change policy approaches from general to specific. The study suggests that before formulating a project, the concerned department should ensure whether the project is the household-based/hamlet-based/Panchayath level/the convergence of these three-tier developmental plans. The policy-makers can use the household database of tribal communities to develop an Individual Care Plan (ICP) for every family member. It also helps to formulate the Household Care Plan (HCP) by consolidating the Individual Care Plans. Similarly, they can also make the Hamlet Level Plan (HLP) and the Panchayath Level Plan (PLP) by consolidating the Household Care Plans. This method can implement up to the state-level. In the State and District level plans, the government should give more priority to the empowerment of deprived tribal communities based on their poverty level. Moreover, in the hamlet or Panchayath level planning process, the authorities should be additionally considered the specialities of the topology and geography of tribal

hamlets before preparing the criteria for the implementation of various schemes.

The inter-departmental convergence of various government offices and inter-agency convergence of several agencies in the tribal regions in the Unit level is essential for preventing the discrepancies between the departments in the execution of various schemes in the tribal regions. Moreover, the powers of all departments should be concentrated under the control of a single authority for implementing the schemes/projects cost-effectively without any time delay. Hence, the government should hire a unit level co-ordinator, for organising the projects and programmes in a time-bound manner. Moreover, the Tribal Department and Panchayath should seek technical supports from various academic and technical institutions in the tribal regions for assisting the Unit level Co-ordinator for the planning and implementation process of tribal schemes. There should be a coordination committee of TDO, TEOs, Panchayath President, Secretary and Working Group Convenors, tribal representatives, and technical experts.

Social Audit is one of the effective ways of measuring the impact of tribal welfare/developmental programmes/projects executed in the tribal regions. There should be established a social audit committee for evaluating tribal development programmes in the Panchayath level under the control of Oorukoottam representatives. Moreover, the committee should conduct social audits twice in a year with the presence of technical experts, government representatives, hamlet leaders, Panchayath President and ward members, civil society representatives, etc. Based on

the evaluation, the committee should submit the audit report to the Tribal Development Department, the Grama Panchayath and the Chairman of the District Planning Committee. Moreover, the Social Audit Committee report should be presented in all Oorukootoms and Panchayat' development seminars, and Grama Sabhas. Furthermore, it should be circulated through public media.

At least twice in a month, the TDO/TEO should evaluate the working reports and services of the tribal promoters under their jurisdiction. Otherwise, because of the lack of responsibility of tribal promoters, deserved tribal families will lose their benefits getting from the government. Moreover, it will lead to the wrong selection of beneficiaries in the distribution of financial assistance for various schemes. Hence, the government should have to give periodical training to the tribal promoters for enhancing their knowledge in various government rules and welfare schemes. Moreover, the Tribal Development Department should take initiatives for giving appreciation gifts/certificates to tribal promoters based on their performances in the state and district levels.

7.4 Contribution of the Researcher

The study which explains the various areas of the TSP, its knowledge about the community, scheme-wise implementations, availability of infrastructure facilities in the tribal areas, and its efficiency of implementation, for uplifting the tribal communities of Kerala has been executed with meticulous care. The study uses prolific primary data and inferences obtained from the field and also the opinion of the community

in general to articulate the inter-community vicissitudes in social capabilities for working out the inter-community socio-economic comparisons among the marginalized in the tribal groups of Kerala using Lorenz concentration, Gini and other modelling techniques. Among other things, it also helped to contribute in a novel way the inter-community disparity in the awareness of the various TSP schemes, and this would, in turn, help profusely for the policymakers the need for proper awareness whenever new schemes are implemented for the outlier's groups. These are, in fact, clear contributions on the part of the researcher in the area of the tribal community of Kerala.

7.5 Areas for Future Research

Though the study is all-pervasive as far as the TSP linked tribes in Kerala is concerned, it also gives new vistas for further study. Studies, such as human development indicators incorporating every activity of the life of the tribes in Kerala is an important area, another one quite useful to delineate is the forward-backwards dichotomy of tribes in various facets, this seems to be a useful one as it helps to target more TSP allocations to the backward group vis-à-vis the forward, yet another area is the exit and entry from poverty in an inter-generational dimension using poverty decomposition method, and also evaluation and governance of the TSP schemes in Kerala and thereby juxtaposing the community in social progress angle. These are not the only areas which require attention for the researchers, but several local specific issues in a social class-wise aspect also seem pertinent to be taken up for research and analyses.



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Appendices

Appendix-A

INTERVIEW SCHEDULE

TSP on the Human Capability formation of the Tribal Community in Kerala

Interviewer : Nishamol M.

Name of Panchayath & Hamlet

Supervising Guide: Prof. D. Rajasenan

Name & Contact no. of interviewee

Institute : Dept. of Applied Economics, CUSAT Date of Interview

I. Family details

1a. Basic Profile

Name of Member	Gender	Age	Marital Status	Relation With respondent	Education Qualification	Family nature	No. of Dependents		Family status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)
							No.	Nature	

Getting pension	If No, Reason	If Yes, nature of pension	Income (11)				
			Individual (11.1)			Family (11.2)	
			Daily (avg.)	Weekly (avg.)	Monthly (avg.)	Calculated (avg.)	Official (Ration Card)
(10)	(10.1)	(10.2)	(11.1a)	(11.1b)	(11.1c)	(11.2a)	(11.2b)

II. Asset Details

2.1 Land

2.1a Basic Information

Nature of land (12)	If landless, Reason (12.1)	Nature of Property deed (13)	Ownership of property deed on different types of land (14)						
			Agriculture land (14.1)		Homestead land (14.2)		Community and Homestead land (14.3)		
			Single	Common	Single	Common	Single	Common	

If no personal deed, reasons (15)	Area of land holding (16)						Usage of agri. land (17)		
	Agriculture land (16.1)		Homestead land (16.2)		Homestead + Agriculture lands (16.3)		Cultivation (17.1)	Lease (17.2)	No use (17.3)
	Single	Joint	Single	Joint	Single	Joint			

2.2b. Whether land alienated from you or your ancestors? Yes/ No; If Yes,

Nature of land (18)	Area (19)		Year of alienated (20)	Mode of land alienation (21)	Reasons for alienation (22)	Alienated to whom (23)	Action on land alienation (24)
	Agriculture (19.1)	Home stead (19.2)					

2.2 Housing Facilities

2.2a Basic Information

Years of residing (25)	Owner Ship of house (26)	Nature of house (27)	No. of rooms (28)	Raw materials used for housing construction (29)			Avail Toilet facility (30)	If no, option (30.1)
				Roof (29.1)	Wall (29.2)	Floor (29.3)		

Avail Electricity (31)	If no, option (31.1)	Drinking water facility (32)		Other usage of water (33)	
		Source (32.1)	Distance (32.2)	Source (33.1)	Distance (33.2)

2.2b Possession of equipment

Radio (34)	T.V (35)	Mobile (36)	Refrigerator (37)	Computer (38)	Washing machine (39)

Owned Vehicle (40)	Specify vehicle (40.1)	No. of Table (41)	No. of Chair (42)	Almarah (43)	Gas Stove (44)

2.3 Savings and Indebtedness

2.3a Indebtedness- Yes/ No; If Yes;

Reasons for indebted (45)	Name of Creditor (46)	Period of loan (47)	Loan Amount (48)	Security provided (49)	Mode of Payment (50)	Current status of payment (51)	If pending, reasons (51.1)

2.3b Relation with financial institution

No. of Account holders (52)	Name of Account holder (53)	Type of Financial institution (54)	Relation with financial institute (55)

2.4 Social Capital

2.4a Whether family joined in any Club/ Society/ Union? Yes/ No

No. of (56)	Status of Family member (57)	Name of association (58)	Holding position (59)	Facing social discrimination (60)	Forms of discrimination (61)	Attitude towards activities (62)

2.4b If active in Political party;

Position in party (63)	Duration of taking party hip (64)	Involvement in (65)			Casting Vote (66)
		Routine party activities (65.1)	Party meeting (65.2)	Rally (65.3)	

Role of election campaign (67)	Relation with politician (68)		
	Ward member (68.1)	President (68.2)	MLA (68.3)

2.4c Are you interested in?

Reading newspaper (69)			Watching T.V (70)			Hearing Radio (71)		
Yes/ No (69.1)	When (69.2)	Avail from (69.3)	Yes/ No (70.1)	When (70.2)	Avail from (70.3)	Yes/ No (71.1)	When (71.2)	Avail from (71.3)

Reading Books (72)			Participating festival (73)		
Yes/ No (72.1)	When (72.2)	Avail (72.3)	Yes/ No (73.1)	When (73.2)	Nature (73.3)

III. Employment

3.1 Work Profile

3.1 Basic Information

Whether working (74)	If no, reason (74.1)	No. of earners (75)	Engaged in (76)	Nature of earning (77)	Sources of income (78)

3.1a Government Job

If government job, (79)				
Grade (79.1)	Nature of job (79.2)	Experience (79.3)	Relation with respondent (79.4)	Number of govt. employees (79.5)

3.1b Private Job

If private job, (80)					
Nature of job (80.1)	Working hrs. (80.2)	Salary (80.3)	Experience (80.4)	No. of employees (80.5)	Relation with respondent (80.6)

3.1c Cultivation

If cultivator, (81)							
Nature of farming (81.1)	Ownership of land (81.2)	Cash crops (81.3)	Traditional crops (81.4)	Non-traditional crops (81.5)	Asst. getting from (81.6)	Nature of assistance (81.7)	Farming Issues (81.8)

3.1d Labouring

If labour, (82)							
Place of work (82.1)	Nature of job (82.2)	Working hrs/day (82.3)	Working days/week (82.4)	Wage per day (82.5)	Facing Wage discrimination (82.6)	Mode of payment (82.7)	Work issues (82.8)

3.1e MGNREGA and Self-Employment

MGNREGA (83)					If, Self-employed (84)	
Member (83.1)	working days/month (83.2)	Source of information (83.3)	Regular payment (83.4)	If no, reason (83.4a)	Nature of job (84.1)	Availability of work (84.2)

3.1f Subsidiary Occupation

Engaged in other work (85)	If yes, Subsidiary occupations (86)		
	Subsidiary-1 (86.1)	Subsidiary-2 (86.2)	Subsidiary-3 (86.3)

IV. Infrastructure facilities

4.1 Basic Infrastructure facilities in Homestead and Agriculture Lands

Locality of land (87)		Avail transportation facilities (88)		Nature of road (89)		Size of road (90)	
Home (87.1)	Agri. (87.2)	Home (88.1)	Agri. (88.2)	Home (89.1)	Agri. (89.2)	Home (90.1)	Agri. (90.2)

Type of vehicle (91)		Distance from road side (92)		Availability of electricity (93)		Water facility (94)	
Home (91.1)	Agri. (91.2)	Home (92.1)	Agri. (92.2)	Home (93.1)	Agri. (93.2)	Home (94.1)	Agri. (94.2)

4.2 Distance between house and other public facilities

Sl. No	Distance from House to	Within 0.5KM	0.5KM – 1KM	1KM- 4M	4KM- 7KM	7KM- 10KM	10KM<
95.	Anganwadi						
96.	L.P School						
97.	U.P School						
98	High School						
99	Higher Secondary						
100	College						
101	Medical College						
102	PHC						
103	Police Station						
104	Ration shop						
105	Retail shop						
106	Market						
107	Post office						
108	Bank						
109	KSEB						
110	Bus Stop						
111	TEO office						
112.	TDO office						
113.	ITDP office						
114	Employment Exchange						
115	Grama panchayath						

V. Education

5.1 Basic Information: School level

Whether children Studying (116)	If yes, course (117)	If studying at school, (118)			If day scholar, (119)			
		Status (118.1)	Medium (118.2)	Staying at (118.3)	Travelled by (119.1)	Distance (119.2)	Special tuition (119.3)	Common study room (4)

If hostel mate, (120)					Attending PTA meeting (121)	Approaches of teachers (122)
Amt. of Hostel fee (120.1)	Fee Paid by (120.2)	Location of hostel (120.3)	Distance from home (120.4)	Reasons for staying (120.5)		

5.2 Details about Higher Education

Name of Higher education course (123)	Nature of Institute (124)	Year of studying (125)	Staying at (126)	If day scholar, (127)		
				Distance (127.1)	Travelling expense (127.2)	Avail Common study room (127.3)

5.3 Assistance getting from government

Assistance from govt. (128)	Avail regular financial asst. (129)	If no, Reasons (129.1)	Additional educational benefit (130)	Nature of benefits (130.1)	Taking loan (131)	loan Amount (132)

5.4 Information about Dropouts

No. of dropout age>20 (133)	Gender of dropout student (134)	Dropout reasons (135)	Dropout by the Respondent (136)	If Yes, reasons (137)	Class/course (138)

VI. Health

6.1 Basic health information

Preferred treatment	Reasons for preference	Nearest hospital	Taking treatment from pvt. hospital	If yes, reason
(139)	(139.1)	(140)	(141)	(141.1)

6.2 Basic health information

Additional health support getting	If AW, frequency of visiting	Nature of service	If HW, frequency of visiting	Nature of service they provide	Participating Medical Check-up	Source of information
(142)	(143)	(143.1)	(144)	(144.1)	(145)	(146)

6.3 Attitude of respondents on the services getting from hospitals

Sl. No	Process	Highly satisfied (5)	Somewhat satisfied (4)	Satisfied (3)	Somewhat dissatisfied (2)	Highly dissatisfied (1)
147.	Approaches of doctors					
148.	Approaches of nurses and other staffs					
149.	Availability of medicines					
150.	Availability of check-up facilities					
151.	Inpatient treatment facilities					
152.	Availability of infrastructure facilities					
153.	Availability of Ambulance					
154.	Treatment for chronic diseases					

HS- 1; SS- 2; S -3; SDS- 4; HDS- 5

II. Schemes availed

7.1 Awareness about the official system related to tribal development activities

Sl. No	Official System	Aware (1)	Visited (2)
155.	District Tribal Department		
156.	Tribal Extension Office		
157.	District Panchayath		
158.	Block Panchayath		
159.	Grama Panchayath		

7.2 Hamlet governance

7.2a Oorukoottam Performance

Decision makers on schemes (160)	If Oorukoottam, (161)					
	Hear about OK (161.1)	Conducted by (161.2)	Basis of formation (161.3)	Frequency/year (161.4)	Participating OK (161.5)	If no, reasons (161.6)

If Oorukoottam, (161) (continue...)					
Major role carried (161.7)	Conducting social audit (161.8)	Implementing OK decisions (161.9)	If no, reasons (161.10)	Satisfied on OK activities (161.11)	If no, reasons (161.12)

7.2b Performance of Promoters and Ward

More effective authority (162)	Reason of effectiveness (162.1)	Performance of tribal promoters & Ward Member (163)				
		Visiting house (163.1)	Frequency/Quarter (163.2)	Sharing information (163.3)	Facing discrimination (163.4)	hearing need (163.5)
		P				
		M				

7.3 Assistance from Government

7.3a Purchasing Land

Avail asst. from govt. (164)	Name of Govt. authority (165)	Name of Scheme (166)	Period/ Year of getting land (167)	Area (168)	
				Home (168.1)	Agri. (168.2)

Issues related to land availability (169)			Land selected by (170)	Distance from hamlet (171)	Land hand over to 3 rd parties (172)	If yes, reasons (172.1)
Personal (169.1)	Official (169.2)	General (169.3)				

7.3b Housing and Toilet Construction

Assistance from govt. (173)	If yes, asst. for (173.1)	Year (174)	Source of information (175)	Name of govt. authority (176)	Scheme of house /toilet (177)	Amt. of scheme (178)	Getting amount (179)
H:							
T:							

Stages of construction (180)	Constructed by (181)	If govt. agencies specify (181.1)	times of getting benefit (182)	Role of fixing H.plan (183)	Issues related to construction of house (184)		
					Personal (184.1)	Official (184.2)	General (184.3)

7.3c Livelihood Assistance

Getting asst from govt. (185)	Items availed (186)	Authority (187)	Scheme (188)	Nature of benefit (189)	Source of information (190)	Year (191)	Current status (192)

7.3d Assistance for Skill Development

Source of information (193)	Area of Training (194)	Name of Scheme (195)	Name of Course (196)	Name of Institute (197)	Avail placement Facility (198)

Getting job (199)	Evaluation of Student (200)	Benefits of training (201)	If no, reasons (201.1)	Registered your name at (202)	If no, reason (202.1)

7.4 Awareness about various government schemes

7.4a. Awareness about Educational Schemes

Incentive to brilliant students (203)	Ayyankali memorial talent search scholarship (204)	Assistance to study tour (205)	Supply of chair and table (206)	Supply of laptop (207)

MRS/ Ashram school (208)	Post/pre metric scholarship (209)	Vocational training course (210)	Free entrance coaching class (211)	Skill development programme (212)

7.4b. Awareness about Health Schemes

Assistance for sickle cell anaemia (213)	Janani Janma Raksha (214)	Assistance to traditional tribal healers (215)	Food support programme (216)	Health care package (217)

Cancer control programme (218)	Assistance to pvt. hospital (219)	State health insurance card (220)	Karunya schemes (221)

7.5 Functions of Social Security Measures

7.5a. Services from Public Distribution System

Basic information about the functions of PDS					
Purchasing from PDS (222)	If yes, items (222.1)	Whether it is need based? (223)	Quantity per card (224)	Quality of items (225)	Availability of items (226)

7.5b Services from Anganwadi

Basic information about the functions of Anganwadies					
Services getting from anganwadi (227)	Nature of services (228)	Quantity of food (229)	Quality of food (230)	Availability of food (231)	Using food for intake (232)

7.6 Attitude of respondents to the Tribal Development Activities (sector-wise)

Sl. No	Process	Land	Housing	Skill Devpt	Edu.	Health
I	All Sectors					
233.	Availability of Information					
234.	Selection process of beneficiaries					
235.	Attitude of functionaries					
236.	Evaluation process of higher authorities					
II.	Land + Housing					
237.	Amount of financial assistance					
238.	Payment mode					
239.	Selection of process of land					
240.	Handing over the documents					

241.	Available land/ house					
242.	Structure / plan of house					
III.	Skill Development + Education					
243.	Attitude of teaching staffs					
244.	Availability of infrastructure facilities					
245.	Evaluation process of classes					
IV.	Skill Development					
246.	Function of placement cell					
247.	Technical sessions					
248.	Present job					
V.	Education					
249.	Performance of institutions					
250.	Pre & Post-metric scholarships					
251.	Other assistance getting from govt.					
252.	Attendance of teachers					
VI.	Health					
253.	Functions of PDS system					
254.	Services getting from Anganwadies					
255.	Healthcare programmes					
256.	Financial assistance for chronic disease					
257.	Community Kitchen					
258.	Benefits getting from medical camp					

7.7 Attitude of beneficiaries to the approaches of government' tribal development programmes (overall evaluation)

Sl. No	Process	Highly satisfied (5)	Somewhat satisfied (4)	Satisfied (3)	Somewhat dissatisfied (2)	Highly dissatisfied (1)
259.	Awareness about schemes					
260.	Sources of information					
261.	Performance of Oorukoottam					
262.	Activities of tribal development dept.					
263.	Services from LSGIs					
264.	Services from Agriculture dept.					
265.	Services from KSEB					
266.	Approaches of functionaries					
267	Services of promoters					
267	Services of Panchayath Member					
268	Selection of Beneficiaries					
269	Fund Allocation					
270	Monitoring system					

CODED DATA

1a. Basic Profile

- Col (2): Gender: Male (1); Female (2); Transgender (3)
- Col (3): Age: 0-6(1); 7-15(2); 16-25(3); 26-35(4); 36-45(5); 46-55(6); 56-65(7); 65<(8)
- Col (4): Marital Status: Single (1); Married (2); Separated (3); Divorced (4); Widow (5) Single mother (6); widower (7)
- Col (5): Relation: Husband (1); Wife (2); Father (3); Mother (4); Son (5); Daughter (6); Grand Father (7); Grand Mother (8); Son in law (9); Daughter in law (10); Grandson (11); Granddaughter (12); Brother (13); Sister (14); Father in law (15); Mother in law (16); Others (17)
- Col (6): Qualification: illiterate (1); Nursery (2); 1-4(3); 5-7(4); 8-10(5); +2/pre-degree (6); Degree (7); P.G(8); Professional (9); ITI (10); Diploma (11); Others (12)
- Col (7): Nature of family: Joint (1); Nuclear (2); Extended (3)
- Col (8.1): No. of Dependents: 0(0); 1(1); 2(2); 3(3); 4(4)
- Col (8.2): Nature of Dependency: Children (1); Aged people (2); Disabled (3); Bed-ridden (4); Others (5)
- Col (9): Family Status: APL (1); BPL (2); BPL AAY (3); no ration card (4)
- Col (10): Getting pension: No (0); Yes (1); NA (2)
- Col (10.1): If No, reason: Not applied (1); Official issue (2); Application rejected (3); Don't Know (4)
- Col (10.2): Nature of pension: Old age (1); Widow (2); Labour welfare (3); Service pension (4); Others (5)
- Col (11.1a): Avg. Individual income- Daily :>200(1);201-350(2); 351-500(3); 501-650(4); 650<(5)
- Col. (11.1b): Weekly: >500 (1); 501-1000 (2); 1001- 1500 (3); 1501-2000 (4); 2001-2500 (5); 2501<(6)
- Col (11.1c): Monthly: >2500(1); 2501-5000 (2); 5001-7500 (3); 7501-10000 (4); 10001-12500 (5); 12501-15000 (6);15001<(7)
- Col (11.2a): Avg. Family income-calculated: >4000(1); 4001-7500(2); 7501-11000(3); 11001-13500(4); 13501-17000(5); 17001-20000 (6); 20000<(7)
- Col (11.2b): Income in Ration card: >500(1); 500-750(2); 751-1500(3); 1501-2250(4); 2251-3000(5); 3001<(6)

2.1 Land

- Col (12): Nature of land: Agriculture (1); Homestead (2); community land (3); 1&2(4); 1&3(5); landless(6)
- Col (12.1): if landless: Poverty (1); Natural calamities (2); others (3)
- Col (13): Nature of property deed: Title deed (1); Document of Possession (2); Both 1&2 (3); no deed (4)
- Col (14): Ownership of property deed: Title deed (1); Document of Possession (2); Both 1&2(3); no deed(4)
- Col (15): Reasons for no individual deed: Failure of administration (1); lost (2); Lack of land Partition (3); High registration charges (4); Other (5)
- Col (16): Total area: >0.05acre (1);0.06 - 0.1acre (2); 0.11 – 0.25acre (3); 0.26 – 0.5acre (4); 0.51 -1 acre (5); 1.01-2acre (6); 2.01-3acre (7); 3.01 -5 acre (8); 5.01-8 acre (9); 8.01 acre<(10)

Appendices

- Col (17): Usage of land: Full (1), Partially (2), Unusable (3) NA (4)
- Col (18): Nature of land: Agriculture (1); Homestead (2); Barren/ uncultivated (3); both 1 & 2 (4);
- Col (19): Area: >0.05acre (1);0.06 - 0.1acre (2); 0.11 – 0.25acre (3); 0.26 – 0.5acre (4); 0.51 -1 acre (5); 1.01-2acre (6); 2.01-3acre (7); 3.01 -5 acre (8); 5.01-8 acre (9); no details (10)
- Col (20): Year: before 1975 (1); 1975-1985(2); 1985-1995(3); 1995-2005 (4); 2005-2015 (5); 2016- (6)
- Col (21): Mode of alienation: Lease (1); Selling (2); Oral transfer of possession (3); Allowing to take free (4); Lack of ownership deed (5); interference of govt. authorities (6); Others (7)
- Col (22): Reasons for land alienation: land encroachment (1); indebtedness (2); Displacement for Developmental Activities (3); Natural calamities (4); Others (5)
- Col (23): Alienated to whom: Relatives (1); Same community member (2); Non tribes (3); Forest department (4); Others (5)
- Col (24): Action on land alienation: Complained (1); Case in court (2); Application rejected (3); Case not filed (4); No action (5); compromise(6); Court took favourable decisions, but land did not get (7)

2.2 Housing Facilities

- Col (25): Years of residing: >2 (1); 2-5 (2); 5-10 (3); 10-15(4); 15< (5)
- Col (26): Ownership of house: Own (1); Rent (2); Relatives' house (3); Others (4)
- Col (27): Nature of house: Dilapidated (1); liveable (2); Cutcha (3); Semi-pucca (4); Pucca (5); semi-finished (6); Both 1&6 (7); Both 2&6 (8)
- Col (28): No. of rooms: B1HK (1); B2HK (2); B3HK (3); 3BH (4); 2BH (5); 1BH (6); Other (7)
- Col (29.1): Roof: Thatch (1); Plastic sheets (2); Asbestos (3); Mud Tile (4); Concrete (5); Other (6)
- Col (29.2): Wall: Clay (1); Wood (2); Sand (3); Mud bricks (4); Cement Bricks (5); Others (6)
- Col (29.3): Floor: Sand (1); Cow-dung (2); Cement (3); Red oxide (4); Tile (5); Others (6)
- Col (30): Toilet facility: No (0); Yes (1)
- Col (30.1): Using: Personal (1); Neighbour (2); Common (3); Open-air (4); Other (5)
- Col (31): Availability of Electricity: Yes (1); No (0)
- Col (31.1): if no, Other sources: Solar (1); Kerosene (2); Other (3)
- Col (32.1,33.1): Sources: Pipe water (1); Well (2); Stream (3); Bore well (4) govt. scheme (5); Pond (6); Canal (7); Keni (8); River (9); Other (10)
- Col (34-44): Possession of equipment: Yes (1); No (0)
- Col (40.1): Vehicle: Cycle (1); Bike/Scooter (2); Auto rickshaw (3); Car (4); Jeep (5); Pickup van (6); 2&3 (7); 2&4 (8); 2&5 (9); 3&6 (10); Others (11)

2.3 Savings and Indebtedness

- Col (45): Reasons for indebtedness: Housing construction (1); Marriage (2); repayment of old debt (3); agriculture (4); Treatment of illness (5); expenses for ceremony (6); buying vehicle (7); Education (8); Others (9)
- Col (46): Creditors: Commercial banks (1); Co-operative bank (2); Pvt. bank (3); Local money lenders (4) Kudumbashree (5); Others (6)
- Col (47): Period: >1 year (1); 1-3 years (2); 3-5 years (3); 5years< (4)
- Col (48): Loan Amount:>10000(1); 10000-25000(2); 25001-50000(3); 50001-75000(4); 75001-1lakh (5); 1-3 lakh (6); above 3 lakh (7)
- Col (49): Security provided: No security (0); Land (1); House (2); Ornaments (3); Agriculture produces (4); Promissory note (5); MGNREGA payment (6); both 1&2(7); Others(8)
- Col (50): Payment mode: Weekly (1); Monthly (2); payment from MGNREGA wages (3); Others (4)
- Col (51): Status of payment: Regular (1); Irregular (2); Accumulated (3); Not paid (4); Write off (5)
- Col (51.1): Reasons of pending: no work (1); ill health (2); unexpected expenses (3); Accumulated interest (4); Others (5)
- Col (52): Account Holder: Yes (1); No (0)
- Col (54): Type of financial Institutions: Commercial Bank (1); Co-operative bank (2); co-operative society (3); Post office (4); Insurance company (5); Private bank (6); Local Money Lenders (7)
- Col (55): Relation with financial institute: Depositor (1); Loan (2); Pensioner(3); Salary(4); Insurance (5); Transaction (6); Others (7)

2.4 Social Capital

- Col (56): No. of Members: 1 (1); 2 (2); 3 (3); 4 (4); above 4
- Col (57): Status of Family Member: Respondent (1); Husband (2); Wife (3); Son (4); Daughter (5); Daughter-in-law (6); Father (7); Mother (8); Sister (9); Brother (10); Others (11)
- Col (58): Associations: Kudumbashree (1); Trade Union (2); Co-operative society (3); Political Party (4); Tribal association (5); welfare association (6); Library (7); Arts and Sports club (8); Festival Committee (9); Farmers' groups (10); Others (11)
- Col (59): Position: Member (1); President (2); Secretary (3); Treasurer (4); Office bearers (5); Others (6)
- Col (60): Facing Social Discrimination: Yes (1); No (0)
- Col (61): Forms of Discrimination: Status of Caste (1); Income (2); Education (3); Other (4)
- Col (62): Attitude towards activities: Highly Satisfied (1); Satisfied (2); Not satisfied (3)
- Col (63): Position in political party: Member (1); Active Member (2); office bearer (3); Others (4)
- Col (64): Duration of membership: >1year (1); 1-3Yrs (2); 3-5yrs (3); 5-7yrs (4); 7-10yrs (5); 10<yrs. (6)
- Col (65 & 66): Involvement in party programme: Always (1); Sometimes (2); Never (3)
- Col (67): Role of election campaign: No role (1); Not very much involved (2); Actively participated (3)
- Col (68): Relation: don't know (1); heard the name (2); know, but no personal relation (3); know very Well (4); having regular interactions (5)
- Col (69-73): Interest for participating: Yes (1); No (0)
- Col (69-73): When: Regularly (1); Occasionally (2); Rarely (3)
- Col (69-72): Owned (1); Neighbour (2); Teashop (3); Workplace (4); Library (5); Other (6)
- Col (73.3)-code: Nature of festival: Tribal festival (1); Onam (2); Temple festival (3); All (4); 1&3 (5); 2&3(6);others(7)

3.1 Work Profile

- Col (74): Whether working: Yes (1); No (0)
- Col (74.1): Reasons for not working: Ill health (1); Old age (2); Disabled (3); No job opportunity (4); Unskilled (5); Others (6)
- Col (75): Earners at home: no one (0); 1(1); 2 (2); 3 (3); 4(4); more than 4 (5)
- Col (76): Engaged in: Major Occupation (1); Subsidiary Occupations (2); Both (3)
- Col (76): Nature of earning: Monthly (1); Weekly (2); Daily (3); Seasonal (4); Others (5)
- Col (78): Source of income: Government job (1); Private Job (2); Cultivation (3); Labour (4); Self-employment (5); MGNREGA (6); Others (7)
- Col (79.1): Grade of Govt. job: Class-1(1); Class-2 (2); Class-3 (3); Class-4 (4)
- Col (79.2): Nature of job: Permanent (1); Temporary (2); Contract (3)
- Col (79.3): Experience: >3yrs (1); 3-5yrs (2); 5-10yrs (3); 10<yrs. (4)
- Col (79.4): Relation with respondent: Myself (1); Father (2); Mother (3); Husband (4); Wife (5); Son (6);Daughter (7); Others (8)
- Col (79.5): No. of government employees: 1 (1); 2 (2); 3 (3); 4 (4); 5 (5); 5< (6)
- Col (80.1): Job nature: Administration (1); Accountant (2); Teacher (3); Sales (4); Office assistant (5); Others (6)
- Col (80.2): Working hrs.: >3hrs. (1); 3-5hrs. (2); 5-8hrs (3); 8-10hrs (4); 10<hrs. (5); Specify.....
- Col (80.3): Salary: >2000(1); 2001-4000(2); 4001-6000(3); 6001-8000(4); 8001< (5); Specify.....
- Col (80.4): Experience: >3yrs (1); 3-5yrs (2); 5-7 yrs. (3); 7-10yrs. (4) 10yrs< (5)
- Col (80.5): No. of private sector employees: 1(1); 2 (2); 3 (3); 4 (4); 5 (5); 5< (6)
- Col (80.6): Relation with respondent: Myself (1); Father (2); Mother (3); Husband (4); Wife (5); Son (6);Daughter (7); Others (8)
- Col (81.1): Nature of farming: Cash crops (1); Traditional (2); Non-traditional (3); both 1&2 (4); both 1&3 (5); both 2&3 (6); all (7); others (8)
- Col (81.2): Nature of land: Owned (1); Lease (2); Share (3); both 1&2 (4); 1&3 (5); Others (6)
- Col (81.3): Cash crops: Rubber (1); Coffee (2); Pepper (3) Areca (4); Coconut (5); Coccoca (6); 1&6 (7); 2&3 (8); 4&5 (9); 1, 2&3 (10); 2, 3,4 &5 (11); All (12); 1,3 &6(13); 1,2 &6(14); 1,3,4&6(15); 1,4,5 &6 (16), 1,5&6(17); 3 &5(18); Others (19)
- Col (81.4): Traditional food crops: Rice (1); Dhal gram (2); Tubers (3); 1&5 (4); 2, 3 &4 (5); 2&3 (6); 3&6 (7); Others (8)
- Col (81.5): Non-traditional food crops: Banana (1); Tapioca (2); Vegetables (3); Pineapple (4); Cashew nut (5); 1&3 (6); 2&3 (7); 3 &4 (8);1&5 (9); 1,2 &3 (10); All (11); Others (12)
- Col (81.6): Asst. getting from: No assistance (0); Agriculture dept. (1); LSGI (2); Rubber board (3); NGOs(4); NABARD (5); 1&2 (6); 1&3 (7); 1&5 (8); 1,3&5 (9); 2,3&5 (10); 3,4&5 (11);
- Col (81.7): Nature of Assistance: Guidelines (1); Getting seeds and sapling (2); Fertilizers and pesticides (3); Agriculture loans (4); Subsidies (5); Collection of agricultural produces (6); 2&3 (7); 1,2 &3 (8); 1, 2 & 6 (9); 1,2,4&5 (10); All (11); Others (12)

- Col (81.8): Farming Issues: Water Scarcity (1); High labour charge(2); lack of transportation facilities (3); lack of interest from functionaries (4); Corruption (5); Threats from animals (6); Non availability of loan from financial institutions (7); 1&2 (8); 1&3 (9); 1&4 (10); 1&5 (11); 1&6 (12); 2&4 (13); 3&4 (14); 3&5 (15); 3&6 (16); 4&6 (17); 5&6 (18); 1, 2&3 (19); 1,2 & 4 (20); 1,3&4(21); 3,4&6(22); 1,2,3,4 &6(23); 1,4 &6 (24);1, 3 & 6 (25);
- Col (82.1): Work place: Plantation (1); Construction (2); Agriculture (3); land lord (4); Others (5)
- Col (82.2): Nature of job: Permanent (1); Contract (2); Daily wages (3)
- Col (82.3): Working hrs./ day: >3hrs (1); 3-5hrs (2); 5-8hrs (3); 8-10hrs (4); 10<hrs (5); Specify..
- Col (82.4): Avg. working days/ week: >3 days (1); 3 days (2); 4days (3); 5days (4); 6days (5); 7days (6)
- Col (82.5): Wage/day: >200 (1); 201-300 (2); 301-400 (3); 401- 500 (4); 501-600 (5); 600< (6); specify...
- Col (82.6): Facing Wage discrimination: Yes (1); No (0)
- Col (82.7): Mode of Payment: Daily (1); Weekly (2); Monthly (3); Others (4)
- Col (82.8): Issues from work place: No issue (0); Low wages (1); Overtime duty (2); No security measures (3); both 1&3 (4); Others (5)
- Col (83.1): Member of MGNREGA: Yes (1); No (0)
- Col (83.2): No. of working days/ month: 8-12days (1); 13- 18 days (2); 19-24days (3); depends (4);
- Col (83.3): Source of information: Ward Member (1); Mate (2); Kudumbasree member (3); Others (4)
- Col (83.4): Getting payment regularly: Yes (1); No (0)
- Col (83.4a): if no, Reasons: lack of fund (1); inefficiency of authorities (2); not-aware (3); Others (4)
- Col (84.1): Nature of Job: Cattle rearing (1); Shop keeper (2); Driver (3); Goat farming (4); Tribal healer (5); Others (6)
- Col (84.2): Availability of work: Permanent (1); Seasonal (2); Temporary (3); Others (4)
- Col (85): Engaged in other work: Yes (1); No (0)
- Col (86): Subsidiary Occupations: Collecting forest produces (1); Collection of medicinal plants (2); Agriculture labour (3); Others (4)

4. Infrastructure facilities

- Col (87): Locality: Steep hill slope (1); Road side (2); Far from road side (3); Forest areas (4); Others (5)
- Col (88): Availability of transportation facility: Yes (1); No (0)
- Col (89): Nature of road: Tarred (1); Metal (2); Concrete (3); Red Sand (4); Mud (5); Others (6)
- Col (90): Size: Walk way (1); Small vehicle (2); Medium vehicle (3); Large vehicle (4); Others (5)
- Col (91): Vehicle: No vehicle (0); Two-wheeler (1); Auto (2); Jeep (3); Tipper (4); Bus (5); Others (6)
- Col (92): Distance from main road: 0- 0.25KM (1); 0.25-0.5KM (2); 0.5-1KM (3); 1-5KM (4); 5KM< (5)
- Col (93): Availability of Electricity: Yes (1); No (0)
- Col (94): Availability of Water facility: Yes (1); No (0)
- Col (95-115): Distance between house and other public facilities: within 0.5km (1); 0.5-1km (2); 1km-4km (3); 4-7km (4); 7-10km (5); above 10km (6)

5. Education

- Col (116): Whether children studying at home: Yes (1); No (0)
- Col (117): Course: School (1); H.S.S (2); Degree (3); P.G (4); Diploma (5); professional (6); Others (7)
- Col (118.1): Status of school: Government (1); Aided (2); Self-finance (3); MRS (4); Others (5)
- Col (118.2): Medium of teaching: Malayalam (1); English (2); Tamil (3);
- Col (118.3): Staying at: Home (1); Hostel (2); Others (3)
- Col (119.1): Travelled by: School bus (1); Bus (2); Jeep (3); Walking (4); Auto (5); Others (6)
- Col (119.2): Distance: >1KM (1); 1-3 KM (2); 3-5 KM (3); 5KM-10KM (4); 10KM< (5)
- Col (119.3&.4): Special tuition class and common study room at hamlet: Yes (1); No (0)
- Col (120.1): Hostel fee: >1000 (1); 1000-1500 (2); 1500-2000 (3); 2000< (4); No fee (5); don't know (6)
- Col (120.2): Fee Paid by: Tribal dept. (1); Well-wisher (2); NGOs (3); Others (4)
- Col (120.3): Location of hostel: Within the district (1); Outside district (2); Other state (3)
- Col (120.4): Distance from home: >10KM (1); 10-25KM (2); 25-50 KM (3); 50-75KM (3); 75KM-100KM (4); 100KM<
- Col (120.5): Reasons for sending hostel: Poverty (1); Better education (2); No nearest school (3); No travelling facility (4); All (5); both 1&2 (6); 1,3&4 (7); 1&4 (8); 1,2 &4 (9)
- Col (121): Attending PTA meeting: Yes (1); No (0)
- Col (122): Teachers' attitude: Lovable (1); Friendly (2); Irritating (3); Angry (4); Other (5)
- Col (123): Name of higher education course: Degree (1); P.G (2); Diploma (3); professional (4); others(5)
- Col (124): Nature of institute: Government (1); Aided (2); Self-finance (3); Others (4)
- Col (125): Year of studying: 1st year (1); 2nd year (2); 3rd year (3) 4th year (4)
- Col (126): Staying at: Home (1); Hostel (2); Others (3)
- Col (127.1): Distance from home: >5KM (1); 5-15KM (2); 15-25KM (3); 25KM< (4)
- Col (127.2): Travelling Expense/ day (Rs.): >10 (1); 10-20 (2); 21-30 (3); 31-40 (4); 40< (5)
- Col (127.3): Common study room at hamlet: Yes (1); No (0)
- Col (128): Assistance from Govt.: No (0); Financial assistance (1); free accommodation (2); food (3); books (4); All (5);1&2 (6);1,3&4 (7);1&3 (8); 1,2 &3 (9);1&4 (10); Others (11)
- Col (129): Financial assistance getting regularly: Yes (1); No (0)
- Col (129.1): If No, Reasons: Official problem (1); Lack of fund (2); Failure in submission of certificate (3); Other (4)
- Col (130): Getting additional education benefit: Yes (1); No (0)
- Col (130.1): Nature of Benefits: No benefit (0); Prize money for top mark (1); lap top (2); Bharat Darshan Tour (3); Gothra sarathy (4); Table &Chair (5); Cycle (6); School bags (7); Tuition classes (8); 1&2 (9); 4&5 (10); 4&8 (11); 4,6&8 (12); Others (13)
- Col (131): Taking loan: Yes (1); No (0)
- Col (132): Amount of loan (Rs.): >25000 (1); 25000-50000 (2); 50000-75000 (3); 75000-1lakh (4); 1lakh < (5)
- Col (133): No. of drop-outs age >20: No (0); 1 (1); 2 (2); 3 (3); above 3 (4)

- Col (134): Gender of dropout student: Male (1); Female (2); Transgender (3)
- Col (135): Reasons for dropout: Not interested (1); Poverty (2); Teachers' attitude (3); Lack of travelling Facility (4); Language problem (5); Parents attitude (6); No nearest school (7); illness (8); Failure in exams (9); both 1&5(10); both 2&4 (11); Others (13); 4, 5 & 7 (12)
- Col (136): Drop-out by the respondent: No (0); Yes (1); NA (2)
- Col (137): Reasons for drop-out: Financial problem (1); Failure in exams (2); Lack of nearest schools (3); Lack of proper guidance (4); No travelling facilities (5); Not interested (6); 1&3 (7); 1 & 4 (8); 2&4 (9); 1, 3 & 5 (10); Others (11);
- Col (138): Drop-out Class/ Course: LPS (1); UPS (2); HS (3); HSS (4); Degree (5); P.G (6); Diploma (7); Others (8)

6. Health

- Col (139): Preferred Treatment: Traditional (1); Allopathic (2); Ayurveda (3); Homeo (4); Both 1&2 (5); both 2&4 (6); 1,2&3 (7); 1,2 & 4 (8); 2,3 & 4 (9); 2&3 (10)
- Col (139.1): Reasons: Easy accessibility (1); Low cost (2); Believes (3); Financial assistance (4); doctors availability (5); 1&2 (6); 1&3 (7); 1&4 (8); 2&5 (9); 3&5 (10); 1,2&3 (11); 1,2&5 (12); 1,3&5 (13); 1,4 & 5 (14); 1,2 & 4 (15); 1&5 (16)
- Col (140): Nearest govt. hospital: PHC (1); Taluk (2); District (3); Other (4)
- Col (141): Taking treatment from private hospital: Yes (1); No (0)
- Col (141.1): If Yes; Reason: Nearest hospital (1); Treatment facilities (2); need based (3); Preference to Tribes (4); Fee reduction (5); Govt. scheme (6); 1&2 (7); 2&3 (8); 1, 2&3 (9); 2,3&4 (10); 2,4&5 (11); 2,3,4 & 5 (12); 1, 2,3,4&5 (13)
- Col (142): Additional health support getting from government: No additional support (0); Asha worker (1); health workers (2); Medical camps (3); All (4); Others (5)
- Col (143&144): Frequency of visiting: No visit (0); Need based (1); once/month(2); Official purpose only
- Col (143.1): Nature of AW services: Palliative care (1); Distribution of Medicine (2); Pregnancy care (3); conducting Health awareness classes (4); Taking vaccination (5); Passing information (6); All (7); 2&6 (8); 1,2 & 6 (9); 2, 3,4,5&6 (10); Others (11)
- Col (144.1): Nature of HW services: Palliative care (1); Distribution of Medicine (2); Pregnancy care (3); conducting Health awareness classes (4); Taking vaccination (5); Passing information (6); All (7); 1&2 (8); 2&4 (9); 2&5 (10); 2&6 (11); 2,4&5 (12); 2, 3,4,5&6 (13); Others (14)
- Col (145): Participating medical check- up? Yes (1); No (0)
- Col (146): Source of information: Promoters (1); Ward member (2); PHC (3); Asha workers (4); Anganawadi teacher (5); 1&4 (6); 1&5 (7); 4&5 (8); 3&5 (9); Others (10); Not aware (11)
- Col (147-154): Attitude of the respondents on the services getting from the hospital: Highly Dissatisfied (1); Somewhat Dissatisfied (2); Satisfied (3); Somewhat satisfied (4); Highly satisfied (5)

7. Tribal governance and Schemes availed

- Col (155-159): Awareness about official system: Yes (1); No (0)
- Col (160): Decision makers on schemes: Oorukoottam (1); LSGIs (2); Tribal department (3); both 2&3 (4); All (5); Others (6)
- Col (161.1): Hear about Oorukoottam: Yes (1); No (2)
- Col (161.2): Oorukoottam Conducted by: Hamlet leaders (1); Panchayath (2); Tribal dept. (3); 2 &3 (4); Others (5)
- Col (161.3): Basis of formation: Ward wise (1); Community wise (2); hamlet wise (3); Others (4)
- Col (161.4): Frequency/ year: No (0); 1time (1); 2 times (2); 3times (3); 4times (4); don't know (5)
- Col (161.5): Participating Oorukoottam meeting: Regularly (1); Sometimes (2); Rarely (3); No (0)
- Col (161.6): Reasons: Not interested (1); negotiation of dominated community (2); functionaries' attitude (3); Not aware about oorukoottam meeting (4); others (5)
- Col (161.7): Major role: Hamlet leader (1); Ward member (2); Promoter (3); 2&3 (4); Others (5)
- Col (161.8): Conducting social audit: Yes (1); No (0)
- Col (161.9): Whether authorities implement OK decisions: Always (1); Sometimes (2); Rarely (3); No (0)
- Col (161.10): If no, Reasons: Corruption (1); involvement of middlemen (2); lack of negotiation (3); others (4); 1&2 (5)
- Col (161.11): Are you satisfied on Oorukoottam activities? Yes (1); No (0)
- Col (161.12): If no, Reasons: Negotiation of dominated community (1); Functionaries' attitude (2); decisions will not implement (3); Protecting the interest of middlemen (4); both 2&3 (5); Others (6)
- Col (162): Effective authority: Not effective (0); Tribal dept. (1); Panchayat (2); Both 1&2 (3)
- Col (162.1): Reasons of effectiveness: Easy to approach (1); no time lagging (2); good administrative support (3); approach of functionaries (4); availability of information (5); both 1&3 (6);
- Col. (162.2): If not effective, reasons: Time lagging (1); -ve approach of functionaries (2); Corruption (3); No support (4); lack of information (5); All (6); 1&2 (7); 2&3 (8); 2,3,4&5 (9); Others (10)
- Col (163.1): Whether promoter /ward member visits your house? No (0); Regular (1); Sometimes (2); Rarely (3)
- Col (163.2): Frequency/ Quarter: No visit (0); 1time (1); 2 times (2); 3times (3); 4times (4); more than 4 times (5);
- Col (163.3): Are they shared information? Regularly (1); Sometimes (2); Rarely (3); No (0)
- Col (163.4): Are they showing any caste/ community discrimination? Yes (1); No (0)
- Col (163.5): Are they willing to hear your need? Regularly (1); Sometimes (2); Rarely (3); No (0)

- Col (164): Avail assistance from government: Yes (1); No (0)
- Col (165): Name of govt. authority: Tribal Department (1); TRDM (2); LSGIs (3); Revenue Department (4); Forest department (5); Others (6)
- Col (166): Name of schemes:
- Col (167): Period: before 1975 (1); 1975-1985 (2); 1985-1995 (3); 1995-2005 (4); 2005-2015 (5); 2016- (6)
- Col (168): Area of land: >0.05 acre (1); 0.05 - 0.1 acre (2); 0.1 - 0.25 acre (3); 0.25 - 0.5 acre (4); 0.5 - 1 acre (5); 1-2 acre (6); 2-3 acre (7); 3 - 5 acre (8); 5-8 acre (9); 8 acre < (10)
- Col (169.1): Personal: Information about schemes (1); Getting documents (2); lack of transportation facilities (3); 1&2 (4); 2&3 (5); Others (6)
- Col (169.2): Official: finding of land (1); acquiring of land (2); fixation of land value (3); division of land (4); Negotiation of govt. (5); Time lagging (6); 1&6 (7); 1,2,3&6 (8); All (9)
- Col (169.3): General: influence of middle men (1); Negative attitude of public (2); Attack from animals (3); Infertility of land (4); Water scarcity (5); 1&2 (6); 1&5 (7); 3&4 (8); 3&5 (9); 3,4&5 (10); 2&5 (11); 1, 3& 5 (12)
- Col (170): Land selected by: beneficiaries (1); functionaries (2); third parties (3); others (4)
- Col (171): Distance from hamlet: 0- 0.25KM (1); 0.25-0.5KM (2); 0.5-1KM (3); 1-5KM (4); 5KM < (5)
- Col (172): Whether land getting from govt. schemes handover to 3rd parties? Yes (1); No (0)
- Col (172.1): Reasons for land handover: indebtedness (1); water scarcity (2); attack from animals (3); Encroachment (4); treatment for illness (5); others (6)
- Col (173): Assistance from govt. for housing or toilet construction: Yes (1); No (0)
- Col (173.1): Assistance for: House +Toilet (1); House only (2); Toilet only (3); House repair (4); 1&4 (5) 2&3 (6)
- Col (174): Year: before 1975 (1); 1976-1985 (2); 1986-1995 (3); 1996-2005 (4); 2006-2015 (5); 2016 onwards (6)
- Col (175): Source of information: Promoters (1); Ward Member (2); Oorukoottam (3); News board (4); both 1&2 (5); 1, 2 & 3 (6); others (7)
- Col (176): Authority: TRDM (1); Tribal dept. (2); Block Panchayat (3); Grama Panchayat (4); AHADS (5); Others (6)
- Col (177): Schemes: IAY (1); EMS (2); TO (3); Special package (4); NGO (5); ODF (6)
- Col (178): Amount: House: >25000 (1); 25001-50000 (2); 50001-100000 (3); 100001-150000 (4); 150001-200000 (5); 200001-250000 (6); 250001-300000 (7); 300001-350000 (8)
: Amount: Toilet: >2500 (1); 2501-5000 (2); 5001-10000 (3); 10001-15000 (4); 15000 < (5)
- Col (179): Getting amount: fully availed (1); not fully availed (2); partially availed (3); not availed (4);
- Col (179.1): Reasons: Commission (1); Middle men's interference (2); Dues from functionaries (3) Blocked after initial investments (4); Lapsation of fund (5); House not completed (6); 3&5 (7); 1,3 & 5 (8); 1&7 (9); Others (10);
- Col (180): Stages of housing construction: Finished (1), Semi- finished (2); base level (3); not started (4); pending final work (5)

Appendices

- Col (181): House constructed by: Beneficiary (1); Contractors (2); Govt. agencies (3); Others (4)
- Col (181.1): Agencies: COSTFORD (1); Nirmithi Kendra (2); Habitat (3); AHADS (4);
- Col (182): Times of getting housing benefit: First time (1); Second Time (2); More than two (3)
- Col (183): Fixing housing plan: Beneficiary (1); Common housing plan (2); Functionary's opinion (3)
- Col (184.1): Personal: Lack of fund (1); Purchasing raw materials (2); High labor charge (3); Getting Documents (4); Small room size (5); Less no. of rooms (6); Conversion of cash to other purpose (7); no ventilator & windows (8); All (9); 1&3 (10); 2&3 (11); 1,2&3 (12); 2,3&4 (13); 1,2,3&4 (14); 3, 4,5 &6 (15); 1,2,3,4 &7 (16)
- Col (184.2): Official: Housing plan (1), Time lagging (2); Corruption (3), Functionaries approach (4); Selection of beneficiaries (5); Inaccuracy of measurement (6); All (7); 1&2 (8); 2&4 (9); 2&6 (10); 1, 4&6 (11); 2,4&6 (12); 1,2,4&6 (13); Others (14)
- Col (184.3): General: attack from animals (1); water scarcity (2); infertile land (3); no electricity (4); lack of transportation facilities (5); 1&2 (6); 2&4 (7); 2&5 (8); 4&5 (9); 1,2&5 (10); 2,4&5 (11); All (12); Others (13)
- Col (185): Getting livelihood assistance from government: Yes (1); No (0)
- Col (186): Items availed: Cattle (1); Domestic fowl (2); Sapling (3); Vehicle (4); Machineries (5); others
- Col (187): Authority: Tribal department (1); Agriculture department (2); LSGIs (3); NABARD (4); Rubber Board (5); NGO (6); All (7); Others (8)
- Col (188): Name of Schemes: WAADI (1); scheme of Tribal Dept. (2); Scheme of LSGI (3); TDF programme (4); Scheme of agri. Dept (5); All (6); Others (7)
- Col (189): Nature of benefit: financial assistance (1); free supply (2); beneficiary contribution (3); others
- Col (190): Sources of information: Ward Member (1); Promoters (2); Oorukoottam (3); Activist (4); Direct meeting (5); Others (6)
- Col (191): Year of getting benefit: Before 1995 (1); 1995-2000 (2); 2001-2005 (3); 2006-2010 (4); 2011-2015 (5); 2016- (6)
- Col (192): Current status: Survived (1); Not survived (2); Partially survived (3); Sold (4); Not functioned (5) Not getting (6)
- Col (193): Sources of information: Ward Member (1); Tribal Department (2); Oorukoottam (3); Notice Board (4); Others (5)
- Col (194): Area of training: Agriculture (1); Manufacture (2); Service (3); Health (4); Others (5)
- Col (195): Scheme: TO scheme (1); LSGI scheme (2); Central govt. scheme (3); Others (4)
- Col (196): Course: Electrical (1); Driving (2); Traditional treatment (3); Others (4)
- Col (197): Institute: Vocational Training Institute (1); KELTRON (2); KGTE (3); KIRTADS (4); Others
- Col (198): Functioning of Placement cell: Yes (1); No (0)
- Col (199): Getting job based on training? Yes (1); No (0)
- Col (200): Doing evaluation on students' performance: Yes (1); No (0)
- Col (201): Is training benefited: Yes (1); No (0)
- Col (201.1): Reasons: Medium of instruction (1); Attitude of faculties (2); No practical session (3); not Covered entire syllabus (4); no placement cell (5); others (6)
- Col (202): Registered your name at: Employment Exchange (1); PSC (2); Both (3)
- Col (202.1): Reasons: Lack of knowledge in internet (1); non availability of internet (2); lack of interest (3); lack of education (4); lack of confidence (5); fear of exams (6); not necessary (7); others (8)

- Col (203-212): Awareness about educational schemes: Yes (1); No (0)
- Col (213-221): Awareness about health schemes: Yes (1); No (0)
- Col (222): Are you purchasing food items from PDS? Yes (1); No (0)
- Col (222.1): Items: Rice (1); Atta (2); Sugar (3); Kerosene (4); All (5); 1,2&3 (6); 1,2&4 (7); 1,3&4 (8); 2,3&4 (9)
- Col (223): Getting need based items: Yes (1); No (0)
- Col (224): Quantity/ card: Based on family members (1); Fixed by authorities (2); Others (3)
- Col (225): Quality of food items: Good quality & edible (1); Low quality, but using (2); Low quality & not edible (3); good quality, not using (4);
- Col (226): Availability of items: Regularly (1); Occasionally (2); Rarely (3); Not getting (4)
- Col (227): Services getting from anganwadi? Yes (1); No (0)
- Col (228): If yes, Nature of Services: Passing information (1); Nutritious food (2); Asst. to pregnant ladies (3); Distribution of medicine (4); health awareness classes (5); Medical check-up (6); 1&2 (7); 1&6 (8); 1,2&5 (9); 1,2&6 (10); 1,5&6 (11); 1,2,3&6 (12); 1,2,5,&6 (13); All (14);
- Col (229): Quantity: Based on age (1); Fixed quantity (2); based on availability of food items (3); Other
- Col (230): Quality of food: Good quality & edible (1); Low quality & not edible (2); good quality, not using (3); low Quality but using (4) others (5)
- Col (231): Availability of food: Regularly (1); Occasionally (2); Rarely (3); not getting (4)
- Col (232): Using these food items for intake? Yes (1); No (0)
- Col (233-258): Attitude of the respondents on the tribal development activities: Highly Dissatisfied (1); Somewhat Dissatisfied (2); Satisfied (3); Somewhat satisfied (4); Highly satisfied (5)
- Col (259-270): Attitude of the respondents on the services getting from the governing institutions: Highly Dissatisfied (1); Somewhat Dissatisfied (2); Satisfied (3); Somewhat satisfied (4); Highly satisfied (5)

APPENDIX- B: VARIOUS INDEX USED FOR ONE-WAY ANOVA TEST

I. Socio economic Index

1. Profile of household

1. Status of community	Deprived (0)	Not deprived (1)
2. Family type	BPL (0)	APL (1)
3. Nature of family	Joint/Extended (0)	Nuclear (1)

2. Work Profile

4. Nature of employment	Labour/MGNREGA (0)	Government/Cultivation/ self-employment (1)
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3. Asset holding: land

5. Land	Land less (0)	Owned land (1)
6. Land size	≤ 25 cents (0)	Others (1)
7. Land alienated	Yes (0)	No (1)
8. Location of land	Isolated (0)	Road side (1)

4. Asset holding capacities: house

9. Ownership of house	Not owned (0)	Owned (1)
10. Status of house	Semi-finished (0)	Finished (1)
11. House type	Dilapidated (0)	Others (1)
12. Rooms	B1HK, B1H (0)	Others (1)
13. Roof	Others (0)	Concrete (1)
14. Wall	Others (0)	Bricks (1)
15. Floor	Others (0)	Cement, RO, Tiles (1)

5. Infrastructure facilities available at home

16. Toilet facilities	No-0	Yes-1
17. Electricity	No-0	Yes-1
18. Drinking water facility	No-0	Yes-1
19. Distance to water source	Others-0	Premises-1
20. Other water usage facility	No-0	Yes-1
21. Distance to other water source	Others-0	Premises-1

6. Relation with financial institutions

22. Bank account	No-0	Yes-1
23. Affecting indebtedness	No-0	Yes-1

7. Possession of gadgets and animals

24. Owned Mobile	No (0)	Yes (1)
25. Gas stove	No (0)	Yes (1)
26. Owned Vehicle	No (0)	Yes (1)
27. Owned Television	No (0)	Yes (1)
28. Owned cattle	No (0)	Yes (1)

II. Social Capital Index

1. Profile of household

1. Educational status of HH	Below +2 (0)	+2/above +2(1)
2. Status of community	Deprived (0)	Not deprived (1)
3. Location of hamlet	Others (0)	Road side (1)
4. Nature of employment	Labour/MGNREGA (0)	Government/Cultivation/ self-employment (1)

2. Organisational affiliation and involvement of respondents

5. Organisational relationship	No-0	Yes-1
6. Facing discrimination	Yes-0	No-1
7. Political party relationship	No-0	Yes-1

3. Exposure towards media and community festivals

8. Newspaper reading	No-0	Yes-1
9. TV watching	No-0	Yes-1
10. Hearing radio	No-0	Yes-1
11. Reading books	No-0	Yes-1
12. Using mobile	No-0	Yes-1
13. Participating festivals	No-0	Yes-1

III. Distance Index (based on house)

Sl. No	Distance from House to	Within 0.5KM (6)	0.5KM – 1KM (5)	1KM- 4M (4)	4KM- 7KM (3)	7KM- 10KM (2)	10KM< (1)
1.	Anganwadi						
2.	L.P School						
3.	U.P School						
4.	High School						
5.	Higher Secondary						
6.	College						
7.	Medical College						

Appendices

8.	PHC						
9.	Police Station						
10.	Ration shop						
11.	Retail shop						
12.	Market						
13.	Post office						
14.	Bank						
15.	KSEB						
16.	Bus Stop						
17.	TEO office						
18.	TDO office						
19.	ITDP office						
20.	Employment Exchange						
21.	Grama panchayath						

IV. Awareness about educational schemes

1.	Aware about incentives	No (0)	Yes (1)
2.	Ayyankali memorial scholarship	No (0)	Yes (1)
3.	Aware about study tour	No (0)	Yes (1)
4.	Aware about supply of chair	No (0)	Yes (1)
5.	Aware about supply of lap top	No (0)	Yes (1)
6.	Aware about MRS school	No (0)	Yes (1)
7.	Aware about pre/post metric scholarship	No (0)	Yes (1)
8.	Aware of Vocational training course	No (0)	Yes (1)
9.	Aware of Free entrance coaching	No (0)	Yes (1)
10.	Aware of skill development programme	No (0)	Yes (1)

V. Awareness about health schemes

1.	Aware about asst. for sickle cell anaemia	No (0)	Yes (1)
2.	Aware of Janani Janma Raksha	No (0)	Yes (1)
3.	Aware of asst. to traditional tribal healers	No (0)	Yes (1)
4.	Aware of food support programme	No (0)	Yes (1)
5.	Aware of healthcare package	No (0)	Yes (1)
6.	Aware of cancer control programme	No (0)	Yes (1)
7.	Assistance for treatment in private hospital	No (0)	Yes (1)
8.	Aware of State insurance card	No (0)	Yes (1)

VI. Awareness about governing system

1. District Tribal Department	Not aware (0)	Aware (1)
2. Tribal Extension Office	Not aware (0)	Aware (1)
3. District Panchayath	Not aware (0)	Aware (1)
4. Block Panchayath	Not aware (0)	Aware (1)
5. Grama Panchayath	Not aware (0)	Aware (1)

VII. Benefits availed to the HH through different schemes

1. Assistance getting for land	No (0)	Yes (1)
2. Assistance for housing construction	No (0)	Yes (1)
3. Livelihood assistance	No (0)	Yes (1)
4. Assistance to education	No (0)	Yes (1)
5. Assistance to skill development	No (0)	Yes (1)

APPENDIX-C: TABLES

Table 1: Nature of households

Nature of family	Community						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Joint	2 (0.5)	5(1.3)	11(3)	13(3.5)	9(2.4)	6(1.6)	46(12.4)
Nuclear	67(18)	29(7.8)	51 13.7)	53(14.2)	36 (9.7)	88 23.7)	324 (87.1)
Extended	0	0	0	2 (0.5)	0	0	2 (0.5)
Total	69(18.5)	34(9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 2: Details about the widower and widows among tribal communities based on age

Communities	Individual status	Age group					Total
		26-35	36-45	46-55	56-65	65<	
Malayarayar	Widow	0	1 (0.91)	4 (3.64)	4 (3.64)	10(9.09)	19 (17.27)
	Widower	0	0	1 (.91)	0	3 (2.73)	4 (3.64)
Urali	Widow	0	2 (1.82)	1 (.91)	4 (3.64)	1 (.91)	8 (7.27)
Kurichyar	Widow	0	0	2 (1.82)	3 (2.73)	5 (4.55)	10 (9.09)
Paniyar	Widow	1 (.91)	4 (3.64)	3 (2.73)	6 (5.46)	7 (6.36)	21 (19.08)
	Widower	1 (.91)	0	0	0	0	1 (.91)
Eravaller	Widow	1 (.91)	0	3 (2.73)	1(.91)	5 (4.55)	10 (9.09)
	Widower	0	0	0	1 (.91)	1 (.91)	2 (1.82)
Irular	Widow	3 (2.73)	13(11.82)	8 (7.27)	2 (1.82)	5 (4.55)	31 (28.18)
	Widower	0	0	0	2 (1.82)	2 (1.82)	4 (3.64)
Total	Widow	5 (4.55)	20(18.18)	21(19.08)	20(18.18)	33 (30)	99 (90)
	Widower	1 (.91)	0	1 (.91)	3 (2.73)	6 (5.46)	11 (10)

Source: Sample Survey Data

Table 3: Land holding capacity of the households based on the nature of lands

Nature of land	Land holding of tribal households (in acre)											Total
	landless	below 0.05	0.06-0.1	0.11-0.25	0.26-0.5	0.51-1	1.01-2	2.01-3	3.01-5	5.01-8	Above 10	
Homestead	0	1(0.3)	2 (0.5)	0	0	0	0	0	0	0	0	3 (0.8)
Agri & Home	0	0	1 (0.3)	1 (0.3)	10 (2.7)	10 (2.7)	25(6.7)	11 (3)	6(1.6)	2(0.5)	0	66 (17.7)
Malayarayar	0	1 (0.3)	3 (0.8)	1 (0.3)	10 (2.7)	10 (2.7)	25(6.7)	11 (3)	6(1.6)	2(0.5)	0	69 (18.5)
Homestead	0	1 (0.3)	1 (0.3)	0	0	0	0	0	0	0	0	2 (0.6)
Agri & Home	0	0	3 (0.8)	0	13 (3.5)	3 (0.8)	9 (2.4)	2(0.5)	0	1(0.3)	1(0.3)	32 (8.5)
Urali	0	1 (0.3)	4 (1.1)	0	13 (3.5)	3 (0.8)	9 (2.4)	2(0.5)	0	1(0.3)	1(0.3)	34 (9.1)
Homestead	0	2(0.5)	2 (0.5)	0	0	0	0	0	0	0	0	4 (1.0)
Agri&Home	0	0	1 (0.3)	3 (0.8)	7 (1.9)	21 (5.7)	9 (2.4)	12(3.2)	4(1.1)	0	1(0.3)	58 (15.7)
Kurichyar	0	2(0.5)	3 (0.8)	3 (0.8)	7 (1.9)	21 (5.7)	9 (2.4)	12(3.2)	4(1.1)	0	1(0.3)	62 (16.7)
Homestead	0	11 (3.0)	10 (2.7)	10 (2.7)	0	0	0	0	0	0	0	31 (8.3)
Comm land	0	17 (4.6)	7 (1.9)	4 (1.0)	1 (0.3)	0	0	0	0	0	0	29 (7.8)
Agri& Home	0	0	0	1 (0.3)	2 (0.5)	1 (0.3)	0	0	0	0	0	4 (1.1)
Agri & Com	0	0	0	1 (0.3)	0	1 (0.3)	1 (0.3)	0	0	0	0	3 (0.8)
Landless	1(0.3)	0	0	0	0	0	0	0	0	0	0	1 (0.3)
Paniyar	1(0.3)	28 (7.6)	17 (4.6)	16 (4.3)	3 (0.8)	2 (0.6)	1 (0.3)	0	0	0	0	68 (18.3)
Homestead	0	32 (8.5)	9 (2.4)	1 (0.3)	0	0	0	0	0	0	0	42 (11.3)
Agri & Home	0	0	0	0	0	1 (0.3)	1 (0.3)	0	0	0	0	2 (0.5)
Landless	1(0.3)	0	0	0	0	0	0	0	0	0	0	1 (0.3)
Eravaller	1(0.3)	32 (8.5)	9 (2.4)	1 (0.3)	0	1 (0.3)	1 (0.3)	0	0	0	0	45 (12.1)
Homestead	0	4 (1.0)	0	0	1 (0.3)	0	0	0	0	0	0	5 (1.3)
Comm land	0	12 (3.2)	2 (0.5)	0	0	0	0	0	0	0	0	14 (3.8)
Agri & Home	0	0	0	0	0	5 (1.3)	6 (1.6)	5 (1.3)	3(0.8)	1(0.3)	0	20 (5.4)
Agri & Commu_ land	0	0	0	1 (0.3)	3 (0.8)	16 (4.2)	8 (2.1)	9 (2.4)	14 (3.8)	0	1 (0.3)	52 (14.0)
Landless	3 (08)	0	0	0	0	0	0	0	0	0	0	3 (0.8)
Irular	3 (08)	16 (4.2)	2 (0.5)	1 (0.3)	4 (1.1)	21(5.5)	14 (3.7)	14 (3.7)	17 (4.6)	1 (0.3)	1 (0.3)	94 (25.3)
Homestead	0	51 (13.7)	24(6.45)	11 (3)	1 (0.3)	0	0	0	0	0	0	87 (23.4)
Comm land	0	29 (7.8)	9 (2.4)	4 (1.1)	1 (0.3)	0	0	0	0	0	0	43 (11.6)
Agri and Homestead	0	0	5 (1.3)	5 (1.3)	32 (8.6)	41 (11)	50(13.4)	30 (8.1)	13 (3.5)	4 (1.1)	2 (0.5)	182(48.9)
Agri and Co_ land	0	0	0	2 (0.5)	3 (0.8)	17 (4.6)	9 (2.4)	9 (2.4)	14 (3.8)	0	1 (0.3)	55 (14.8)
Landless	5(1.3)	0	0	0	0	0	0	0	0	0	0	5 (1.3)
All HH	5 (1.3)	80 (21.5)	38 (10.2)	22 (5.9)	37 (9.9)	58 (15.6)	59 (15.9)	39 (10.5)	27 (7.3)	4 (1.1)	3 (0.8)	372 (100)

Source: Primary Data

Table 4: Hamlet wise data on land holding capacity of the tribal households

Nature of land	Land holding of tribal households (in acre)											Total
	landless	below 0.05	0.06-0.1	0.11-0.25	0.26-0.5	0.51-1	1.01-2	2.01-3	3.01-5	5.01-8	Above 10	
Edathana	0	0	2 (0.5)	0	3 (0.8)	3 (0.8)	1 (0.3)	9 (2.4)	1 (0.3)	0	1 (0.3)	20 (5.4)
Kavilppadam	0	2 (0.5)	0	1 (0.3)	1 (0.3)	4 (1.1)	2 (0.5)	2 (0.5)	1 (0.3)	0	0	13 (3.5)
Thalappuzha	0	0	0	2 (0.5)	3 (0.8)	6 (1.6)	2 (0.5)	1 (0.3)	2 (0.5)	0	0	16 (4.3)
Godavari	0	0	1 (0.3)	0	0	8 (2.2)	4 (1.1)	0	0	0	0	13 (3.5)
Kurichyar	0	2(0.5)	3 (0.8)	3 (0.8)	7 (1.9)	21 (5.7)	9 (2.4)	12 (3.2)	4 (1.1)	0	1 (0.3)	62(16.7)
Mathothpoyil	1 (0.3)	2 (0.5)	3 (0.8)	2 (0.5)	0	1 (0.3)	1 (0.3)	0	0	0	0	10 (2.7)
Parakkunipoyil	0	9 (2.4)	2 (0.5)	1 (0.3)	0	0	0	0	0	0	0	12 (3.2)
Pathiriyambam	0	1 (0.3)	6 (1.6)	3 (0.8)	2 (0.5)	0	0	0	0	0	0	12 (3.2)
Naduvil veedu	0	3 (0.8)	2 (0.5)	3 (0.8)	0	0	0	0	0	0	0	8 (2.2)
Puthoorkunnu	0	6 (1.6)	1 (0.3)	1 (0.3)	0	0	0	0	0	0	0	8 (2.2)
Mele Kappukunnu	0	2 (0.5)	2 (0.5)	5 (1.3)	0	1 (0.3)	0	0	0	0	0	10 (2.7)
Nedumbalakunnu	0	5 (1.3)	1 (0.3)	1 (0.3)	1 (0.3)	0	0	0	0	0	0	8 (2.2)
Paniyar	1(0.3)	28 (7.6)	17(4.6)	16 (4.3)	3 (0.8)	2 (0.6)	1 (0.3)	0	0	0	0	68 (18.3)
Chappakkad	0	6 (1.6)	3 (0.8)	0	0	0	0	0	0	0	0	9 (2.4)
Vellaram Kadav	0	3 (0.8)	3 (0.8)	0	0	0	0	0	0	0	0	6 (1.6)
Ambedkar Colony	0	14 (3.8)	1 (0.3)	0	0	0	0	0	0	0	0	15 (4)
Naripparachella	1(0.3)	6 (1.6)	1 (0.3)	0	0	0	1 (0.3)	0	0	0	0	9 (2.4)
Mamarath	0	3 (0.8)	1 (0.3)	1 (0.3)	0	1 (0.3)	0	0	0	0	0	6 (1.6)
Eravaller	1 (0.3)	32(8.6)	9 (2.5)	1 (0.3)	0	1 (0.3)	1 (0.3)	0	0	0	0	45 (12)
Paloor	0	3 (0.8)	0	0	3 (0.8)	3 (0.8)	0	3 (0.8)	5 (1.3)	1 (0.3)	0	18 (4.8)
Bommiyampadi	1 (0.3)	5 (1.3)	0	0	0	1 (0.3)	0	1 (0.3)	1 (0.3)	0	0	9 (2.5)
Kolappadika	1 (0.3)	3 (0.8)	0	1 (0.3)	1 (0.3)	6 (1.6)	7 (1.9)	4 (1.1)	3 (0.8)	0	0	26 (7)
Padavayal	1 (0.3)	0	0	0	0	3 (0.8)	4 (1.1)	5 (1.3)	4 (1.1)	0	0	17 (4.6)
Cheerakkadav	0	5 (1.3)	2 (0.5)	0	0	8 (2.2)	3 (0.8)	1 (0.3)	4 (1.1)	0	1 (0.3)	24 (6.5)
Irular	3 (0.9)	16(4.3)	2 (0.5)	1 (0.3)	4 (1.1)	21 (5.7)	14 (3.8)	14 (3.8)	17(4.6)	1(0.3)	1 (0.3)	94 (25.4)
Thadiyanal	0	0	0	0	10 (2.7)	1 (0.3)	1 (0.3)	1 (0.3)	0	0	0	13 (3.5)
Methotti	0	1 (0.3)	4 (1.1)	0	3 (0.8)	2 (0.5)	8 (2.2)	1 (0.3)	0	1 (0.3)	1 (0.3)	21 (5.6)
Urali	0	1 (0.3)	4 (1.1)	0	13 (3.5)	3 (0.8)	9 (2.5)	2 (0.6)	0	1 (0.3)	1 (0.3)	34 (9.1)
Poomala	0	1 (0.3)	2 (0.5)	0	2 (0.5)	4 (1.1)	18(4.8)	10 (2.7)	2 (0.5)	2 (0.5)	0	41 (11)
Naliyani	0	0	1 (0.3)	1 (0.3)	8 (2.2)	6 (1.6)	7 (1.9)	1 (0.3)	4 (1.1)	0	0	28 (7.5)
Malayarayar	0	1 (0.3)	3 (0.8)	1 (0.3)	10 (2.7)	10 (2.7)	25 (6.7)	11 (3.0)	6 (1.6)	2 (0.5)	0	69 (18.5)
Total	5(1.3)	80 (21.5)	38 (10.2)	22(5.9)	37(9.9)	58(15.6)	59 (15.9)	39 (10.5)	27 (7.3)	4(1.1)	3(0.8)	372(100)

Source: Primary Data

Table 5: Year of getting assistance for purchasing land

Hamlets	Year of getting land					Total
	No assist.	1975-1985	1995-2005	2005-2015	2016 onwards	
Edathana	20 (5.4)	0	0	0	0	20 (5.4)
Kavilppadam	10 (2.7)	0	2 (0.5)	0	1 (0.3)	13 (3.5)
Thalappuzha	9 (2.4)	0	1 (0.3)	6 (1.6)	0	16 (4.3)
Godavari	0	0	13 (3.5)	0	0	13 (3.5)
Kurichyar	39 (10.5)	0	16 (4.3)	6 (1.6)	1 (0.3)	62 (16.7)
Mathothpoyil	10 (2.7)	0	0	0	0	10 (2.7)
Parakkunipoyil	10 (2.7)	0	2 (0.5)	0	0	12 (3.2)
Pathiriyambam	11 (3)	0	1 (0.3)	0	0	12 (3.2)
Naduvil veedu	8 (2.2)	0	0	0	0	8 (2.2)
Puthoorkunnu	0	0	0	8 (2.2)	0	8 (2.2)
Mele Kappukunnu	10 (2.7)	0	0	0	0	10 (2.7)
Nedumbalakkunnu	8 (2.2)	0	0	0	0	8 (2.2)
Paniyar	57 (15.3)	0	3 (0.8)	8 (2.2)	0	68 (18.3)
Chappakkad	2 (0.5)	0	1 (0.3)	6 (1.6)	0	9 (2.4)
Vellaram Kadav	4 (1.1)	1 (0.3)	1 (0.3)	0	0	6 (1.6)
Ambedkar Colony	3 (0.8)	6 (1.6)	6 (1.6)	0	0	15 (4)
Naripparachella	1 (0.3)	0	5 (1.3)	3 (0.8)	0	9 (2.4)
Mamarath	3 (0.8)	0	3 (0.8)	0	0	6 (1.6)
Eravaller	13 (3.5)	7 (1.9)	16 (4.3)	9 (2.4)	0	45 (12.1)
Paloor	16 (4.3)	0	0	2 (0.5)	0	18 (4.8)
Bommiyampadi	8 (2.2)	0	0	1 (0.3)	0	9 (2.4)
Kolappadika	21 (5.6)	0	1 (0.3)	4 (1.1)	0	26 (7)
Padavayal	16 (4.3)	0	0	1 (0.3)	0	17 (4.6)
Cheerakkadav	16 (4.3)	0	0	6 (1.6)	2 (0.5)	24 (6.5)
Irular	77 (20.7)	0	1 (0.3)	14 (3.8)	2 (0.5)	94 (25.3)
Thadiyanal	13 (3.5)	0	0	0	0	13 (3.5)
Methotti	21 (5.6)	0	0	0	0	21 (5.6)
Urali	34 (9.1)	0	0	0	0	34 (9.1)
Poomala	41 (11)	0	0	0	0	41 (11)
Naliyani	28 (7.5)	0	0	0	0	28 (7.5)
Malayarayar	69 (18.5)	0	0	0	0	69 (18.5)
Total	289(77.7)	7 (1.9)	36(9.7)	37(9.9)	3 (0.8)	372 (100)

Source: Sample Survey Data

Table 6: Nature of alienated land

Nature of alienated land	Communities						Total
	Malayara yar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
No alienation	67(18)	33 (8.9)	55 (14.8)	67 (18)	32 (8.6)	60 (16.1)	314 (84.4)
Agriculture (A)	2 (0.5)	0	7 (1.9)	1 (0.3)	7 (1.9)	33 (8.9)	50 (13.4)
Homestead (H)	0	1 (0.3)	0	0	0	0	1 (0.3)
A & H	0	0	0	0	6 (1.6)	1 (0.3)	7 (1.9)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 7: Reasons for land alienation

Reasons for land alienation	Nature of land alienated				Total
	No alienation	Agriculture	Homestead	Agriculture and Homestead	
No alienation	314(84.4)	0	0	0	314 (84.4)
Land encroachment	0	31 (8.3)	0	1 (0.3)	32 (8.6)
Indebtedness	0	2 (0.5)	1 (0.3)	1 (0.3)	4 (1.1)
Displacement for devptl. activities	0	2 (0.5)	0	0	2 (0.5)
Natural calamities	0	2 (0.5)	0	5 (1.3)	7 (1.9)
Others	0	13 (3.5)	0	0	13 (3.5)
Total	314 (84.4)	50 (13.4)	1 (0.3)	7(1.9)	372 (100)

Source: Sample Survey Data

Table 8: Materials of roof

Communities	Materials of roof						Total
	Thatch	Plastic sheets	Asbestosos	Mud tile	Concrete	Others	
Malayarayar	1 (0.3)	1 (0.3)	2(0.5)	9 (2.4)	56 (15.1)	0	69 (18.5)
Urali	1 (0.3)	1 (0.3)	9 (2.4)	2(0.5)	21 (5.6)	0	34 (9.1)
Kurichyar	1 (0.3)	5 (1.3)	13(3.5)	22(5.9)	20 (5.4)	1 (0.3)	62 (16.7)
Paniyar	0	6 (1.6)	2 (0.5)	20 (5.4)	40 (10.8)	0	68 (18.3)
Eravaller	10 (2.7)	0	1 (0.3)	24 (6.5)	10 (2.7)	0	45 (12.1)
Irular	1 (0.3)	1 (0.3)	2 (0.5)	38 (10.2)	52 (14)	0	94 (25.3)
Total	14 (3.8)	14 (3.8)	29 (7.8)	115 (30.9)	199 (53.5)	1 (0.3)	372 (100)

Source: Primary data

Table 9: Materials of Wall

Communities	Materials of wall						Total
	Clay	Wood	Sand	Mud Tile	Concrete	Others	
Malayarayar	1 (0.3)	0	0	5 (1.3)	62 (16.7)	1 (0.3)	69 (18.5)
Urali	0	0	1 (0.3)	4 (1.1)	27 (7.3)	2 (0.5)	34 (9.1)
Kurichiyar	4 (1.1)	0	10 (2.7)	28 (7.5)	19 (5.1)	1 (0.3)	62 (16.7)
Paniyar	1 (0.3)	0	1 (0.3)	26 (7)	33 (8.9)	7 (1.9)	68 (18.3)
Eravaller	2 (0.5)	0	5 (1.3)	11 (3)	23 (6.2)	4 (1.1)	45 (12.1)
Irular	1(0.3)	2 (0.5)	0	18 (4.8)	70 (18.8)	3 (0.8)	94 (25.3)
Total	9 (2.4)	2 (0.5)	17 (4.6)	92 (24.7)	234 (62.9)	18 (4.8)	372 (100)

Source: Primary data

Table 10: Materials of floor

Communities	Material of floor					Total
	Sand	Cow dung	Cement	Red oxide	Tile	
Malayarayar	1 (0.3)	1 (0.3)	26 (7)	15 (4)	26 (7)	69 (18.5)
Urali	1 (0.3)	7 (1.9)	21(5.6)	2 (0.5)	3 (0.8)	34 (9.1)
Kurichiyar	0	25 (6.7)	18 (4.8)	14 (3.8)	5 (1.3)	62 (16.7)
Paniyar	0	36 (9.7)	15 (4)	12 (3.2)	5 (1.3)	68 (18.3)
Eravaller	4 (1.1)	13 (3.5)	25 (6.7)	3 (0.8)	0	45 (12.1)
Irular	0	15 (4)	39 (10.5)	36 (9.7)	4 (1.1)	94 (25.3)
Total	6 (1.6)	97 (26.1)	144(38.7)	82 (22)	43(11.6)	372 (100)

Source: Primary data

Table 11: Time period of Assistance for housing or toilet construction

Year	Communities						Total
	Malayarayar	Urali	Kurichiyar	Paniyar	Eravaller	Irular	
No assistance	20 (5.4)	0	13(3.5)	6 (1.6)	4 (1.1)	4(1.1)	47 (12.6)
Before 1975	0	0	0	0	0	1(0.3)	1(0.3)
1976-1985	0	0	1(0.3)	0	0	0	1(0.3)
1986-1995	7 (1.9)	2 (0.5)	3(0.8)	0	6 (1.6)	0	18 (4.8)
1996-2005	9 (2.4)	11(3)	12 (3.2)	14 (3.8)	11 (3)	6 (1.6)	63 (16.9)
2006-2015	27 (7.3)	16 (4.3)	25 (6.7)	33 (8.9)	23 (6.2)	57 (15.3)	181 (48.7)
Up to March 2017	6(1.6)	5 (1.3)	8 (2.2)	15 (4)	1 (0.3)	26(7)	61 (16.4)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Sample Survey Data

Table 12: Number of rooms and family members of various tribal communities

No. of mebrs.	Number of rooms							Total
	B1HK	B2HK	B3HK	3BH	2BH	BH	Others	
1 or 2	0	5 (1.3)	9 (2.4)	0	0	1 (0.3)	0	15 (4)
3-4	0	8 (2.1)	27(7.3)	0	0	0	0	35 (9.4)
5-6	1(0.3)	2 (0.5)	15 (4)	0	0	0	0	18 (4.8)
7-8	0	0	1 (0.3)	0	0	0	0	1 (0.3)
Malayara	1(0.3)	15 (4)	52(13.7)	0	0	1 (0.3)	0	69(18.5)
1 or 2	0	1 (0.3)	0	0	0	1 (0.3)	0	2 (0.6)
3-4	1(0.3)	10 (2.7)	6 (1.6)	0	1 (0.3)	2 (0.5)	0	20 (5.4)
5-6	0	6 (1.6)	3 (0.8)	0	1 (0.3)	0	0	10 (2.7)
7-8	0	2 (0.5)	0	0	0	0	0	2 (0.5)
Urali	1(0.3)	19 (5.1)	9 (2.4)	0	2 (0.5)	3 (0.8)	0	34 (9.2)
1 or 2	0	0	3 (0.8)	0	0	2 (0.5)	0	5 (1.3)
3-4	3(0.8)	9 (2.4)	8 (2.1)	0	2 (0.5)	0	0	22 (5.9)
5-6	1(0.3)	2 (0.5)	17 (4.6)	1(0.3)	4 (1)	1 (0.3)	1(0.3)	27 (7.2)
7-8	1(0.3)	2 (0.5)	3 (0.8)	0	0	0	0	6 (1.6)
9-10	0	0	1 (0.3)	0	0	0	0	1 (0.3)
above 10	0	0	1 (0.3)	0	0	0	0	1 (0.3)
Kurichya	5(1.3)	13 (3.5)	33(8.9)	1(0.3)	6 (1.6)	3 (0.8)	1(0.3)	62(16.7)
1 or 2	0	2 (0.5)	0	0	0	0	0	2 (0.5)
3-4	2(0.5)	10 (2.7)	5 (1.3)	0	2 (0.5)	4 (1)	0	23 (6.2)
5-6	2(0.5)	13 (3.5)	6 (1.6)	0	1 (0.3)	4 (1)	1(0.3)	27 (7.2)
7-8	1(0.3)	5 (1.3)	2 (0.5)	0	0	1 (0.3)	0	9 (2.4)
9-10	0	2 (0.5)	0	1(0.3)	1 (0.3)	0	0	4 (1)
above 10	0	2 (0.5)	1 (0.3)	0	0	0	0	3 (0.8)
Paniyar	5(1.3)	34 (9.2)	14(3.8)	1(0.3)	4 (1)	9 (2.4)	1(0.3)	68(18.3)
1 or 2	1(0.3)	4 (1)	0	0	1 (0.3)	1 (0.3)	0	7 (1.9)
3-4	1(0.3)	14 (3.8)	0	0	2 (0.5)	3 (0.8)	0	20 (5.4)
5-6	0	6 (1.6)	1 (0.3)	0	2 (0.5)	2 (0.5)	0	11 (3)
7-8	0	4 (1)	0	0	0	1 (0.3)	0	5 (1.3)
9-10	0	0	0	0	1 (0.3)	0	0	1 (0.3)
above 10	0	0	0	0	0	1 (0.3)	0	1 (0.3)
Eravaller	2(0.5)	28 (7.5)	1 (0.3)	0	6 (1.6)	8 (2.1)	0	45(12.1)
1 or 2	2(0.5)	7 (1.9)	1 (0.3)	0	1 (0.3)	1 (0.3)	0	12 (3.2)
3-4	6(1.6)	28 (7.5)	5 (1.3)	2(0.5)	2 (0.5)	1 (0.3)	0	44(11.9)
5-6	1(0.3)	22 (5.9)	9 (2.4)	2(0.5)	0	2 (0.5)	0	36 (9.7)
7-8	0	1 (0.3)	1 (0.3)	0	0	0	0	2 (0.5)
Irular	9(2.4)	58(15.6)	16(4.3)	4 (1)	3 (0.8)	4 (1)	0	94(25.3)
All	23 (6.2)	167 (45)	125 (33.6)	6 (1.6)	21 (5.6)	28 (7.5)	2 (0.5)	372 (100)

Table 13: Financial Assistance for housing or toilet construction

Amt of housing construction	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
Below 25000	7 (2.4)	1 (0.3)	7 (2.4)	0	7 (2.4)	0	22 (6.8)
25001- 50000	4 (1.4)	6 (2)	8 (2.7)	4 (1.4)	9 (3.1)	2 (0.7)	33 (11.2)
50001- 100000	10 (3.4)	10 (3.4)	7 (2.4)	4 (1.4)	11 (3.7)	7 (2.4)	49 (16.6)
100001- 150000	4 (1.4)	4 (1.4)	6 (2)	19 (6.4)	4 (1.4)	17 (5.8)	54 (18.3)
150001- 200000	0	0	0	3 (1)	0	1 (0.3)	4 (1.4)
200001- 250000	15 (5.1)	6 (2)	10 (3.4)	15 (5.1)	9 (3.1)	10 (3.4)	65 (22)
250001- 300000	3 (1)	2 (0.7)	1 (0.3)	1 (0.3)	0	1 (0.3)	8 (2.7)
300001- 350000	6 (2)	5 (1.7)	10 (3.4)	16 (5.4)	1 (0.3)	24 (8.1)	62 (21)
Total	49 (16.5)	34 (11.4)	49 (16.5)	62 (20.9)	41 (13.8)	62(20.9)	297 (100)

Source: Sample Survey Data

Table 14: Sources of drinking water and its distance from house

Sources of drinking water	Distance from house to drinking water sources (mtr.)				Total
	Premises	15-100	101-250	250 -500	
Pipe water	1 (0.3)	2 (0.6)	0	0	3 (0.8)
Well	89 (23.9)	37 (9.9)	12 (3.2)	0	138 (37.1)
Stream	54 (14.5)	3 (0.8)	5 (1.3)	1 (0.3)	63 (16.9)
Bore well	3 (0.8)	0	0	0	3 (0.8)
Govt scheme	135 (36.3)	4 (1.1)	0	0	139 (37.4)
Keni	7 (1.9)	18 (4.7)	1 (0.3)	0	26 (7)
Total	289 (77.7)	64 (17.2)	18 (4.8)	1 (0.3)	372 (100)

Source: Sample Survey Data

Table 15: Nature of road at homestead land

Communities	Nature of road at homeland				Total
	Tarred	Metal	Concrete	Sand	
Malayarayar	37 (9.9)	0	3 (0.8)	29 (7.8)	69 (18.5)
Urali	2 (0.5)	1 (0.3)	0	31 (8.3)	34 (9.1)
Kurichyar	7 (1.9)	0	2 (0.5)	53 (14.2)	62 (16.7)
Paniyar	19 (5.1)	5 (1.3)	9 (2.4)	35 (9.4)	68 (18.3)
Eravaller	20 (5.4)	11 (3)	2 (0.5)	12 (3.2)	45 (12.1)
Irular	47 (12.6)	21 (5.6)	0	26 (7)	94 (25.3)
Total	132 (35.5)	38 (10.2)	16 (4.3)	186 (50)	372 (100)

Source: Sample Survey Data

Table 16: Medium of School

Languages	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
Malayalam	14 (4.7)	28 (9.4)	36 (12)	58 (19.4)	17 (5.7)	59 (19.7)	212 (70.9)
Eng.	14(4.7)	6 (2)	16(5.4)	7 (2.3)	7 (2.3)	22 (7.4)	72(24.1)
Tamil	0	0	0	0	15 (5)	0	15 (5)
Total	28 (9.4)	34 (11.4)	52 (17.4)	65 (21.7)	39 (13)	81 (27.1)	299 (100)

Source: Sample Survey Data

Table 17: Facilities for travelling

Facilities	Communities						Total
	Malayarayar	Urali	Kurichyar	Paniyar	Eravaller	Irular	
School bus	9 (3.9)	5 (2.1)	7 (3)	2 (0.9)	13 (5.6)	3 (1.3)	39 (16.7)
Private bus	9 (3.9)	14 (6)	6 (2.6)	12 (5.2)	25 (10.7)	10 (4.3)	76 (32.6)
Jeep	0	2 (0.9)	17 (7.3)	5 (2.1)	0	2 (0.9)	26 (11.2)
Walking	7 (3)	1 (0.4)	16 (6.9)	30 (12.9)	0	13 (5.6)	67 (28.8)
Auto	3 (1.3)	3 (1.3)	3 (1.3)	8 (3.4)	0	8 (3.4)	25 (10.7)
Total	28 (12)	25 (10.7)	49 (21)	57 (24.5)	38 (16.3)	36 (15.5)	233 (100)

Source: Primary data

Table 18: Travelling distance of college going students from house

Distance (KM)	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
Below 5	1(3.4)	0	0	0	0	0	1 (3.4)
5- 15	0	0	6(20.7)	0	0	1 (3.4)	7 (24.1)
15- 25	4 (13.8)	1 (3.4)	2 (6.9)	1 (3.4)	1 (3.4)	3 (10.3)	12 (41.4)
Above 25	7 (24.1)	0	1 (3.4)	0	0	1 (3.4)	9 (31)
Total	12 (41.4)	1(3.4)	9(31)	1(3.4)	1(3.4)	5(17.2)	29 (100)

Source: Primary data

Table 19: Nature of additional benefits

Additional Benefits	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
No benefit (A)	38 (11)	25 (7.3)	44 (12.8)	50 (14.5)	40 (11.6)	82 (23.8)	279 (81.1)
Cash prize for top mark (B)	2 (0.6)	1 (0.3)	2 (0.6)	0	0	0	5 (1.5)
Gothra sarathy (C)	0	3 (0.9)	8 (2.3)	13 (3.8)	0	0	24 (7)
Table and chair (D)	3 (0.9)	4 (1.2)	4 (1.2)	0	0	0	11 (3.2)
Bicycle (E)	0	0	3(0.9)	0	0	0	3 (0.9)
School bag(F)	0	0	0	3(0.9)	0	3(0.9)	6 (1.7)
Tuition class(g)	1(0.3)	0	1(0.3)	0	0	2(0.6)	4 (1.2)
B and lap top	1 (0.3)	0	0	0	0	0	1 (0.3)
C & D	0	0	1(0.3)	0	0	0	1 (0.3)
C & G	0	0	1(0.3)	0	0	3	4 (1.2)
C,E & G	0	0	1(0.3)	0	0	0	1 (0.3)
Others	0	3(0.9)	0	0	2 (0.6)	0	5 (1.5)
Total	45 (13.1)	36 (10.5)	65 (18.9)	66 (19.2)	42 (12.2)	90 (26.2)	344 (100)

Source: Primary Data

Table 20: Reasons for dropout of children under age below 20

Reasons for dropout	Communities					Total
	Urali	Kurichiyar	Paniyar	Eravaller	Irular	
Not interested	1 (1.1)	0	20 (22)	2 (2.2)	5 (5.5)	28 (30.8)
Poverty	0	1 (1.1)	1 (1.1)	1 (1.1)	4 (4.4)	7 (7.7)
Language problem	0	0	6 (6.6)	3 (3.3)	0	9 (9.9)
No nearest school	0	0	0	0	1 (1.1)	1 (1.1)
Illness	1 (1.1)	1 (1.1)	1 (1.1)	1 (1.1)	1 (1.1)	5 (5.5)
Failure in exams	2 (2.2)	0	12(13.2)	1 (1.1)	3 (3.3)	18 (19.8)
Not interested and language problem	0	0	5 (5.5)	1 (1.1)	0	6 (6.6)
Poverty and lack of travelling facility	0	0	1 (1.1)	1 (1.1)	0	2 (2.2)
Lack of travelling facility, Language problem and no nearest school	3 (3.3)	0	5 (5.5)	2 (2.2)	2 (2.2)	12 (13.2)
Others	0	0	0	1 (1.1)	2 (2.2)	3 (3.3)
Total	7 (7.7)	2(2.2)	51 (56)	13(14.3)	18(19.8)	91(100)

Source: Primary Survey

Table 21: Distance between PHC and Hamlets

Location of PHC (Km)	Communities						Total
	Malayarayan	Urali	Kurichiyar	Paniyar	Eravaller	Irular	
> 0.5	27 (7.3)	0	2 (0.5)	0	0	22 (5.9)	51 (13.7)
0.5- 1	25 (6.7)	0	14(3.8)	0	0	0	39 (10.5)
1 - 4	17 (4.6)	23(6.2)	30 (8)	48(13)	9 (2.4)	2 (0.5)	129(34.7)
4 - 7	0	11 (3)	16(4.3)	8 (2.2)	5 (1.3)	26 (7)	66 (17.7)
7 -10	0	0	0	12(3.2)	29(7.8)	44(11.8)	85 (22.8)
10 <	0	0	0	0	2 (0.5)	0	2 (0.5)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Primary Survey

Table 22: Visits of Asha Workers

AW's visits	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
No visit	13 (3.5)	12 (3.2)	9 (2.4)	1 (0.3)	1 (0.3)	29 (7.8)	65 (17.5)
Need based	0	0	13 (3.5)	59 (15.9)	3 (0.8)	62 (16.7)	137 (36.8)
Once per month	1 (0.3)	6 (1.6)	19 (5.1)	2 (0.5)	1 (0.3)	0	29 (7.8)
Official purpose only	55 (14.8)	16 (4.3)	21 (5.6)	6 (1.6)	16 (4.3)	1 (0.3)	115 (30.9)
Not respond	0	0	0	0	24 (6.5)	2 (0.5)	26 (7)
Total	69 (18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Primary Survey

Table 23: Visits of Health Workers

HW's visits	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
No visit	14 (3.8)	5 (1.3)	24 (6.5)	3 (0.8)	13 (3.5)	4 (1.1)	63 (16.9)
Need based	0	0	3 (0.8)	0	1 (0.3)	0	4 (1.1)
Once per month	1 (0.3)	0	0	47 (12.6)	0	0	48 (12.9)
Official purpose only	54(14.5)	29 (7.8)	35 (9.4)	18 (4.8)	9 (2.4)	90 (24.2)	235 (63.2)
Not respond	0	0	0	0	22 (5.9)	0	22(5.9)
Total	69(18.5)	34 (9.1)	62 (16.7)	68 (18.3)	45 (12.1)	94 (25.3)	372 (100)

Source: Primary Survey

Table 24: Types of cash crops cultivated by various communities

Types of cash crops	Communities					Total
	Malayarayar	Urali	Kurichyar	Paniyar	Irular	
Rubber (a)	5 (2.7)	1 (0.5)	0	1 (0.5)	0	7 (3.7)
Pepper (b)	0	0	1(0.5)	0	0	1 (0.5)
Coconut (c)	0	0	0	0	3 (1.6)	3 (1.6)
Rubber and Coccoca	34 (18.1)	19 (10.1)	0	0	0	53 (28.2)
Coffee and Pepper	1 (0.5)	0	35 (18.6)	2 (1.1)	0	38 (20.2)
Areca and Coconut	0	0	0	0	27 (14.4)	27 (14.4)
Rubber, Coffee and Pepper	1 (0.5)	1 (0.5)	10 (5.3)	0	0	12 (6.4)
Coffee, Pepper, Areca &Coconut	0	0	8 (4.3)	0	1 (0.5)	9 (4.8)
Rubber, Pepper and Coccoca	3 (1.6)	0	0	0	0	3 (1.6)
Rubber, Coffee and Coccoca	3 (1.6)	2 (1.1)	0	0	0	5 (2.7)
Rubber, Pepper, Areca & Coccoca	1 (0.5)	1(0.5)	0	0	0	2 (1.1)
Rubber, Coconut Areca & Coccoca	7 (3.7)	1 (0.5)	0	0	0	8 (4.3)
Rubber, Coconut and Coccoca	7 (3.7)	0	0	0	0	7 (3.7)
Pepper and Areca	0	0	0	0	3 (1.6)	3 (1.6)
All	2 (1.1)	3 (1.6)	5 (2.7)	0	0	10 (5.3)
Total	64 (34)	28 (14.9)	59 (31.4)	3 (1.6)	34 (18.1)	188 (100)

Source: Primary Survey

Table 25: Types of traditional crops cultivated by various communities

Traditional crops	Communities					Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Irular	
Rice (a)	1 (1.4)	0	8 (11.1)	4 (5.6)	0	13 (18.1)
Food grass (b)	0	0	0	0	2 (2.8)	2 (2.8)
Dhal gram (c)	0	0	1 (1.4)	1 (1.4)	20 (27.8)	22 (30.6)
Tubers (d)	0	3 (4.2)	8 (11.1)	0	0	11 (15.3)
(a) and (d)	1 (1.4)	0	16 (22.2)	0	0	17 (23.6)
(b) and (c)	0	0	0	0	1 (1.4)	1 (1.4)
(c) and Millet	0	0	0	0	3 (4.2)	3 (4.2)
Others	0	0	0	0	3 (4.2)	3 (4.2)
Total	2 (2.8)	3 (4.2)	33 (45.8)	5 (6.9)	29 (40.3)	72 (100)

Source: Primary Survey

Table 26: Types of non-traditional crops cultivated by various communities

Non-traditional crops	Communities						Total
	Malayarayar	Uruli	Kurichyar	Paniyar	Eravaller	Irular	
Banana	2 (2.1)	1 (1)	8(8.2)	1 (1)	0	21(21.6)	33(34)
Tapioca	2 (2.1)	2 (2.1)	0	0	0	3 (3.1)	7(7.2)
Vegetables	4 (4.1)	1 (1)	9(9.3)	1 (1)	0	1 (1)	16(16.5)
Cashew nut	0	1 (1)	0	0	0	3 (3.1)	4 (4.1)
Banana and Vegetables	1 (1)	0	15 (15.5)	1 (1)	0	7 (7.2)	24 (24.7)
Tapioca and Vegetables	0	0	1 (1)	1 (1)	0	1 (1)	3 (3.1)
Vegetables &Pineapple	0	2 (2.1)	0	0	0	0	2 (2.1)
Banana and Cashew nut	0	0	0	0	0	2 (2.1)	2 (2.1)
Banana, Tapioca and Vegetables	0	0	1 (1)	0	0	0	1 (1)
All	0	0	0	1 (1)	0	0	1 (1)
Others	0	0	0	0	1 (1)	3 (3.1)	4 (4.1)
Total	9 (9.3)	7 (7.2)	34 (35.1)	5 (5.2)	1 (1)	41 (42.3)	97 (100)

Source: Primary Survey

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||| List of Publications |||

- [1] *Reproduction of marginality through Developmentalism: The case of Tribal Population in Attappady, Kerala*; in South Asian Journal of Socio-Political Studies (SAJOSPS), January-June 2020, Vol. XX, No.2, along with Dr. Rajesh. K
- [2] Published one article in Inclusive Development: International Journal of Social Sciences and Humanities, 2017-2018, Vol. 4 and 5, Nos. 1 and 2, CSSEIP, Cochin University of Science and Technology. Title: *Changes in the Population Dynamics of the Tribal Communities in Kerala: An Analysis*.
- [3] *Re-examining Tribal Sub Plan (TSP) in the context of continuing the sustenance of tribal deprivation in Kerala*; Article Volume of 4th International Congress on Kerala Studies (Sector-wise Seminar: Caste-Tribes Development), Published by A.K.G Centre for Research and Studies, Thiruvananthapuram on 29th March 2015.
- [4] Published one article in Sasthragathi, Nov 2014, Vol.49 (1), No.5, Kerala Sasthra Sahithya Parishath. Title of the article is “*പട്ടികവർഗ്ഗ ഉപപദ്ധതിയും ആദിവാസി അതിജീവനവും*” (Tribal Sub Plan and the lives of Tribes).

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