

**RESIDENTIAL SEGREGATION AND INACCESSIBILITY
OF THE TRIBES OF KERALA - A STUDY
ON ISSUES AND IMPACTS**

*Thesis submitted to the
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 guidance of
Prof. (Dr.) D. Rajasenan



**DEPARTMENT OF APPLIED ECONOMICS
Cochin University of Science and Technology
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Ph.D. Thesis under the Faculty of Social Sciences

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Certificate

This is to certify that the Ph.D. thesis entitled “**Residential Segregation and inaccessibility of the Tribes of Kerala - A study on issues and impacts**” submitted by Mrs. Aparna P is a record of bonafide research work carried out by her under my supervision and guidance in the Department of Applied Economics in partial fulfilment of the requirements for the Degree of Doctor of Philosophy of Cochin University of Science and Technology. The thesis has not formed the basis for award of any degree, diploma, associateship, 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. I also certify that all the relevant corrections and modifications as suggested by the audience during the pre-synopsis seminar and recommended by the Doctoral Committee of the candidate have been incorporated in the thesis.

D. Rajasenan
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Declaration

I hereby declare that the dissertation entitled **“Residential Segregation and inaccessibility of the Tribes of Kerala: A study on issues and impacts** is a record of bona fide research work done by me under the guidance of Prof. (Dr.) D. Rajasenan, Department of Applied Economics, Cochin University of Science and Technology, and that it has not been previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other title of recognition.

Aparna P

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Abbreviations

ST	:	Scheduled Tribes
SC	:	Scheduled Caste
STDD	:	Scheduled Tribe Development Department
SCDD	:	Scheduled Caste Development Department
KILA	:	Kerala Institute for Local Administration
KIRTADS	:	Kerala Institute for Research Training and Development Studies of Scheduled Castes and Scheduled Tribes
ITDP	:	Integrated Tribal Development Programme
CSSEIP	:	Centre for the Study of Social Exclusion and Inclusive Policy
AHADS	:	Attappady Hill Area Development Society
PCI	:	Per Capita Income
PCE	:	Per Capita Expenditure
PVTG	:	Particularly Vulnerable Tribal Group
TSP	:	Tribal Sub Plan
NSSO	:	National Sample Survey Organisation
MGNREGS	:	Mahatma Gandhi National Rural Employment Guarantee Scheme
GoK	:	Government of Kerala
SLI	:	Standard of Living Index
ANOVA	:	Analysis of Variance
FGT	:	Foster- Greer- Thorbecke

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Chapter -1

INTRODUCTION

1.1 Background of the Study

Tribes mostly follow a pattern of segregated life whether they are from Kerala or in any parts of the country. But within the tribes itself they are segregated and this shows that each sub-tribal group has its own way of life, pattern and culture. In this sense each tribe follows a unique monolithic culture and hence mingling and inter-mingling between and among the tribes are rare but this system is getting ruptured recently owing to certain development-based displacements in the Kerala's tribal abodes. In spite of all these residential segregation makes major vulnerability in their life and this is more so in the case of very backward tribes like the Kattunaikkan and they mostly dwell in the segregated and unproductive part of the forest milieu very difficult to eke out their living. This shows that based on this nature of backwardness they face segregation in a dichotomous level, one from the mainframe of the society with limited accessibility to basic facilities and infrastructure for a basic sustenance and secondly from the tribes itself to the remote area of the forest without having any access to any facility and does not even have the productive land for bare minimum sustenance. Compared to other social groups in Kerala the tribes face two basic issues, through caste based residential segregation is visible among some castes in some places and regions, its intensity is big in tribal areas and in this sense it is total. Inaccessibility to basic facilities are meager in the Kerala mainframe society and even it is difficult to distinguish Kerala in an urban-rural divide but its magnitude is big in the tribal areas and hence has got titanic issues and impacts in the tribal economy.

These glaring inequalities and development issues have to be minimized. The benefits of development have not percolated to the underprivileged and the needy. To reduce these inequalities, the concept of "Inclusion of the excluded" was introduced for the first time in the eleventh plan document released by the Planning Commission. It aimed for direct income redistribution so as to augment the incomes of the excluded groups. The idea of inclusive growth has been brought in with the intention of creating productive economic opportunities for the vulnerable sections of our society like the Scheduled Tribes, Scheduled Caste, and other marginalized and vulnerable sections of our society. One of the most excluded sections in the development process in the Kerala society is the Scheduled Tribes.

Though, the issues of the tribes and lack of development are all pervasive as far as the tribes are concerned, the basic issues which need immediate attention is housing segregation and lack of economic opportunities owing to their settlement pattern, In this respect several household development activities have been implemented targeting the tribes to come out from the vicious nexus of poverty and livelihood issues. But in spite of all these policy measures the tragedy of the tribes continues unabated. In this respect the study focusing on these two basic issues makes it useful to highlight the major issues which may help to develop appropriate policy frameworks to reduce the impacts associated with these two and other issues addressing the tribes of Kerala.

1.2 The Tribes

The identification of a Scheduled tribe is based on the following criteria: - (a) Indications of primitive traits (b) Distinctive culture, (c) Geographical isolation, (d) Shyness of contact with the community at large, and (e) Backwardness. These features has been adopted from the 1931 Census, the reports

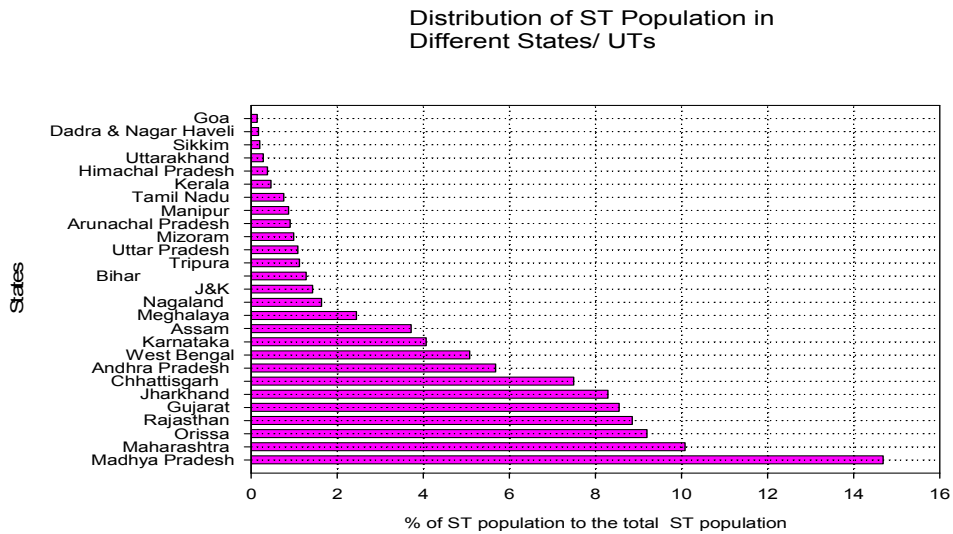
of the first Backward Classes Commission (Kalelkar, 1955), Advisory Committee on Revision of SC/ST lists (Lokur Committee, 1965) and Joint Committee of Parliament on the Scheduled Castes and Scheduled Tribes Orders Amendment Bill of 1967 (Chanda Committee, 1969) and the Ministry of Tribal Affairs, (Annual Report, 2015-16). The Indian Constitution has laid down rules and procedures for their conservation and development. But even after decades of development process, the Scheduled Tribes have been left out from reaping the benefits of economic development.

The Scheduled Tribes or Adivasis are those that carry with them a rich tradition of socio-economic and cultural identity. In India, even though STs are present in almost all States, Madhyapradesh, Bihar, Andhra Pradesh and Orissa enjoy the maximum number of ST population. The States of Nagaland and Meghalaya experiences 80 percent of ST population. As per 2011 census, the ST population of India is 10.4 crores (8.6 percent). Kerala is positioned on 11th position in terms of ST population. The socio-economic status of the tribes differs from place to place as their way of life solely depends on their dwelling place. They exist mostly in the rural areas or areas very close to the forest. The livelihood of tribes revolved around agriculture as their prime source of income. But the external interference in tribal areas lead to large scale displacement and exploitation. The tribes have been devoid of land which led to massive land alienation. This made tribes to lead a nomadic life and hence has begun a segregated life.

1.3 Demographic Profile of Scheduled Tribes

In India, Scheduled Tribe communities can be categorized into two in terms of difference in socio-economic status. One is the formal ST communities and the other is the PVTG (Particularly Vulnerable Tribal Group), earlier known

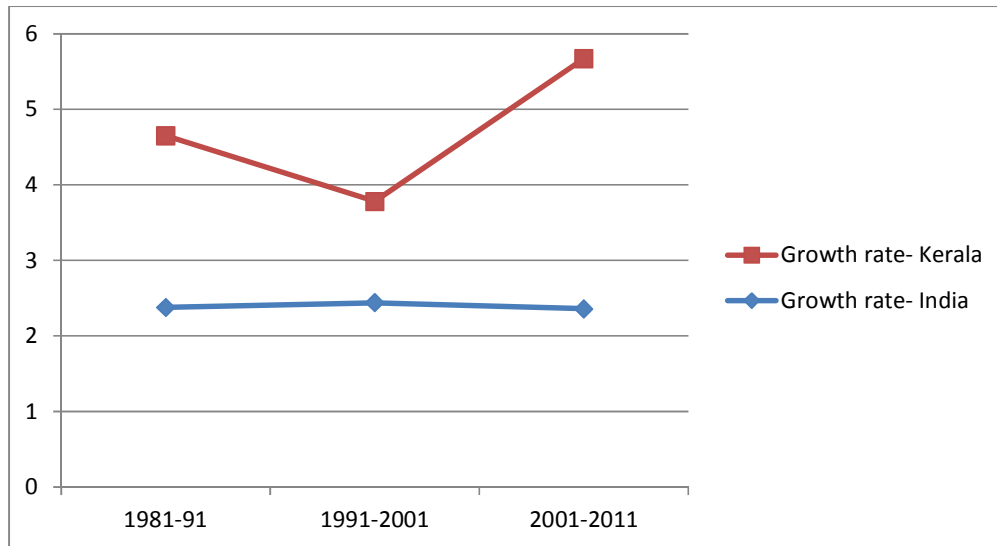
as the primitive tribes. The PVTG is characterized by: a) pre-agriculture level of technology b) stagnant or declining population c) low literacy and d) subsistence level of economy. The PVTG mostly live in inaccessible areas or areas in close proximity to dense forest. Among the Indian States, Madhya Pradesh ranks first in terms of ST population and Goa enjoys the least ST population (Figure 1.1).



Source: Ministry of Tribal Affairs, Annual Report 2015-16.

Figure 1.1 : Distribution of ST population in different States/UT in India.

A comparison of the decadal growth rates of tribal population in India and Kerala shows that there is no substantial increase in ST population on an all India basis. But the picture of Kerala is different. There is a quantum jump in ST population during 2011 compared to the 2001 census (Figure 1.2). It may be due to the inclusion of more communities to the tribal group.



Source: Computed from different census reports.

Figure 1.2 : Comparison of decadal growth rates of ST population in India and Kerala.

1.3.1 Profile of ST communities in Kerala

The 2011 Census has identified 37 tribal communities in Kerala which includes 5 PVTGs. *As per the Census (2011) Kerala has 484839 scheduled tribes which constitutes 1.45 percent of the total population in the State. As per the data, the decennial growth rate has come down to 0.63 percent which is less than the preceding decennial period's growth rate. With regard to the sex-ratio as well, the ratio is low compared to the Kerala figures. Western Ghats region of the state is the major parts in which the tribes are concentrated and hence we can classify tribes as highly segregated as well as rural based. Almost one-third (31.24 percent) of the tribes are settled in Wayanad district, followed by Idukki (11.51 percent), Palakkad with 10.10 percent and Kasaragod with 10.08 percent. These four districts together constitute 62.93 percent of the total tribal population in the State. Table 1.1 shows the detailed results of the district-wise tribal population in the state as well as other indicators.*

Table 1.1 : Tribal population in Kerala and its demographic characters

	Name	Number of House holds	Population	Sex Ratio	Percent share	Literacy rate	Main workers	Cultivators	Agricultural Laborers
	Kerala	119788	484839	1035	100	75.81	161408	10.09	40.59
1	Kasaragod	11508	48857	1040	10.1	73.02	16835	2.58	23.19
2	Kannur	9762	41371	1054	8.5	77.90	13206	3.10	40.49
3	Wayanad	33837	151443	1033	31.2	70.52	52378	8.17	60.47
4	Kozhikode	3754	15228	1050	3.1	85.32	3892	2.83	14.90
5	Malappuram	5716	22990	1040	4.7	76.28	5903	3.18	27.43
6	Palakkad	12858	48972	1014	10.1	61.48	18121	8.12	51.34
7	Thrissur	2364	9430	1162	1.9	83.57	2716	2.06	11.86
8	Ernakulam	4463	16559	983	3.4	85.44	5473	5.28	11.26
9	Idukki	15098	55815	994	11.5	76.62	21861	33.62	36.00
10	Kottayam	5775	21972	1002	4.5	94.34	6757	10.43	10.82
11	Alappuzha	1828	6574	1071	1.4	89.97	1919	3.07	4.85
12	Pathanamthitta	2303	8108	1054	1.7	89.64	2250	7.56	28.49
13	Kollam	2972	10761	1071	2.2	85.74	3129	5.56	27.90
14	Thiruvananthapuram	7550	26759	1120	5.5	89.22	6968	8.47	27.81

Source: Census, 2011

The tribal communities are categorized into seven zones on the basis of their dwelling place (Mathur, 1977). These are Kasaragod, Wayanad, Attappady, Nilambur, Parambikulam, Idukki and Thiruvananthapuram zones. Kannur, Kasaragod and Hosdurg areas are included in Kasaragod-zone which are inhabited by Koragas and Maratis. The entire district of Wayanad is classified as Wayanad-zone. The district is first in terms of tribal population in Kerala. Paniyar, Kurichiyar, Wayanad Kadar, Mullukurumar, Thachanandan, Adiyar, Kurumaban etc are some of the communities in Wayanad area. Attappady region included in the Mannarkad taluk of Palakkad district. Irula, Kurumbas and Mudugar are the prominent communities. Nilambur-zone is in Mancheri taluk of Malappuram district. Most of the PVTG communities exist in this zone such as Cholanaikans, Kattunayakkan and Kadar. Parambikkulam-zone includes the Kadar communities of Negrito origin lives in Chittoor taluk of Palakkad district. Thodupuzha, Devikulam, Peerumedu and Udumbenchola taluks included in Idukki region, of which Malaarayar, Uralan, Ulladar, Mannan, Paliyar, Kurumbapulayar etc are the communities that live in this zone. Thiruvananthapuram-zone includes Nedumangad, Neyyattinkara and certain regions of Pathanamthitta District and in this zone Kanikkar, Malavedar are the communities found here. In Kerala, the tribe's lives in segregated settlements far away from the urban areas (Table 1.2). They are mostly found in rural areas. Wayanad accounts for the majority tribal settlements in Kerala

Table 1.2 : Tribal Settlements in Kerala

Districts	Number	Percentage
Trivandrum	173	3.73
Kollam	26	0.56
Pathanamthitta	43	0.93
Alappuzha	34	0.73
Kottayam	77	1.66
Idukki	256	5.51
Ernakulam	61	1.31
Thrissur	59	1.27
Palakkad	426	9.17
Malappuram	229	4.93
Kozhikode	126	2.71
Wayanad	2167	46.66
Kannur	353	7.60
Kasargode	612	13.18
Total	4644	100

Earlier, Land was owned commonly by the tribal communities. The concept of private property was alien to them until the intruders took over it. This process of land alienation left them in abject poverty. The tribes were isolated physically which led to their social exclusion.

1.4 Residential Segregation

The problem of residential segregation is a hot global issue as it illumines the pathetic issues of the marginalised groups. An enquiry in this respect started

with the housing discrimination encountered by the Negroes in the US housing markets after the First World War and the associated reverberations that had generated with the increasing urbanization and sub-urbanization in the 1960s and 1980s. Studies like Massey, Condran, and Denton (1987); Massey and Denton (1987); Ihlanfeldt and Sjoquist (1989); Stoll, Holzer and Ihlanfeldt (2000); Anas (2004) are important in this respect citing issues relating to residential segregation in the Afro-American ghettos and its underlying issues of the Negroes and their socio economics. Subsequently the issue spread across different ethnic group levels in France, Africa and Latin America and these are well portrayed by the researchers like Gaschet and Le Gallo (2005); Farley and Frey (1996).

The inferences obtained from these helps to coin appropriate definitions and conceptual understanding of the meaning of residential segregation. Usages like social groups clustering in homogenous neighborhoods sharing common socio-cultural traditions or customs who have good feeling of comfort, sense of security, well-being, trust, and ease of social interaction are the results of the works of Suttles (1972); Clark (1991), Massey and Denton (1988) though give similar view in defining the concept but shows some more insight in to the concept as it explains ‘a group that is highly centralized, spatially concentrated, unevenly distributed, tightly clustered and minimally exposed to majority members’. Hence, the concept of residential segregation is embedded with five aspects like evenness, exposure, concentration, centralization and clustering, with an apiece to social and behavioural inferences, which in turn signifying vivid aspects of segregation. Though, specific social identity is a universal phenomenon in characterizing residential segregation, it is tagged differently as in its pattern, scale, form and extent and these are linked varying over temporally and spatially. The manifestation of these could be voluntary or involuntary, which again is patterned in the socio-economic, cultural and historical factors connected with the

area under evaluation like ethnicity factor in the US, professional status in France (Massey and Denton, 1987; Taeuber, 1988; Gaschet and Le Gallo, 2005).

1.4.1 Historical Development

Historical development of the concept of segregation goes to the Chicago School of Thought. In the first quarter of the 20th Century, the works of Park (1915 and 1926) and Burgess (1925) explained segregation as location change issues connected with the normal city life problems of urban growth and associated competitive cooperation. Subsequently Marx (1895), added racial, class and ethnicity concepts in segregation and hence became methodologically useful and theoretically robust concepts in segregation studies. Further, Lewis (1959) analysis of ‘culture of poverty’ in spite of the repeated anti-poverty policy schemes is basically segregation impacts based on individual characteristics of the poor. The analysis relating to physical aggregation impacts of the poor people with ‘neighborhood effects’ based on “where you live affects your life chances” has recently gained prominence.

1.4.2 Segregation in India

Segregation in India is part of the hoary history and is mostly connected to caste. It determines one’s occupation, residence, place to live and even the dress code. In this set up there is no choice and alternatives for those coming under the lower levels of the societal hierarchy. Mostly the disadvantaged groups of Scheduled Tribes form this part of the hierarchy. Industrialization and urbanization as part of the planning process of the independent India though helped in reducing the intricacies of the caste system in the large cities and towns. However, the residential pattern in the large cities took new shapes of housing segregation based on socio-economic status furthering with caste as happened in Mumbai, Kolkata and Delhi with high concentration of SCs and STs. The tribal

hamlets in the country are also classic expositions of segregated neighborhoods. Moreover, each tribal community in the country resides in geographically isolated hamlets, preserving their culture and practices. The SC case is slightly different as they reside in specific clusters or colonies of a shared socio-cultural background. They often lead a parallel life with the other sections of the society, many a time, attaching their social identity with their residential location.

1.4.3 STs of Kerala and their Residential Pattern

The STs are one of the groups in Kerala based on caste exhibit features of clear-cut housing segregation. STs are geographically concentrated and are primarily located in rural areas. But community-wise, the tribes in Kerala are largely heterogeneous based on traditions, customs, beliefs, rules and practices with visible housing segregation even among themselves. The residential pattern of the SCs is quite different as they reside in segregated hamlets but not isolated from the main stream society and hence co-exists with them. They not only choose to reside in cities but in village also in the form of clusters popularly known as the “Scheduled Caste colonies” or “Ambedkar colonies” with some kind of commonality in various parts of the state.

1.5 Review of Literature

Though, there exist plethora of literature focusing housing segregation of the marginalized social groups globally for a century or so, when it is related to India or to the study base of Kerala, the literature support is very scant. Scanning the literature for study and analysis it is obvious that it is mostly connected with residential segregation in the urban areas which shows that studies relating to the rural bases are not given due priority for research and analysis but presently both are coming to the fore. But studies relating to the specific ST residential segregation of Kerala are very scarce. Nonetheless, there are several studies

available linking the STs socio-economic aspects of Kerala *inter alia* their multifarious problems, which to a certain extent is acquiescent in developing this study. The literature in this respect is arranged in areas like socio-economic, education, health, livelihood, land issues, housing policies and residential segregation.

The Scheduled Tribes constitute the most historically deprived category of population. Their position is also at the lowest with respect to the national health and human development indicators . Tribes are often excluded from the general population. The ‘public park theory’ asserts that non-tribes are not be allowed in tribal dominated areas (Elwin, 1943). But Ghurye (1943) contests that tribes are backward caste Hindus and they are to be treated equally with the other Hindu communities. The issues confronting the tribal population are numerous. The process of rapid industrialisation since independence displace tribes as they lived in areas rich in natural resources (Sengupta, 1986). The interference of non-tribes into the tribal dominated areas force the tribes to leave their traditional values and indigenous technology which results in divergent social structure (Kattakayam, 1983). The two major determinants of social and economic exclusion in a rural society are identified as land and caste (Pankaj and Pandey, 2014).

1.5.1 Socio-Economic Status

A true picture of the tribal socio-economic condition explanation of Mathur (1977), depicting their occupation, education, extent and cause of land alienation and women’s status in the tribal society on the basis of sociological and anthropological outlook. In terms of living standard and quality of living, Rajasen et, al (2013) find a clear dichotomous framework as the Kurichiar and the Malayarayar are found to be the better off, while the Kattunaikan, the Adiyar and the Paniyar are worse off. Situating tribes as the outliers in the Kerala’s

development process Shyjan and Sunitha (2009) identify critical gap in educational attainment and deprivation of the community in various spheres. The funds utilized for the improvement of the socio-economic condition of the tribes have not reached to the tribes for their sustainable socio-economic improvement. Despande (2000) rightly elucidates high level of disparity even in an egalitarian state like Kerala and even among tribe's inter-caste disparity continues to underlie the overall disparity. While estimating the poverty and inequality situation of different Indian states, Panagaria and More (2013) identify that tribes are the poorest social category in Kerala. Though other social groups in Kerala have reduced their poverty levels in the last decade, the tribes' poverty levels show acceleration.

The tribes are often cut off from the mainstream society due to their geographical isolation. The development policies often elude the tribal society as their preferences were different. The disassociation of their preferences in the developmental policies led to their socio-economic exclusion (Trivedi, 1998). The most deprived section in our society is the tribal people. They face severe economic exclusion. The paper tries to interrogate the socio-economic changes that had occurred in the livelihood of the tribals. The law prevents them from access to the natural resources that they depend on. It accentuates their poverty and economic exclusion (Ranganatha, 2014). The article assesses the property rights of the indigenous communities that defines their socio-economic status. The changes in property rights can be traced back to the historical aspects. The socio-economic status of the indigenous people is determined by the changes that had taken place with regard to the property rights and subsequent changes in resource utilization (Kjosavik and Shanmugaratnam, 2007).

1.5.2 Livelihood Issues

Though, there exist several factors like land alienation, demise of the traditional tribal agriculture and lower wage rate etc. in the tribal area are the major reinforcing factors affecting their livelihood. In a historical perspective Kunhaman (1982) explains inter-regional differences in livelihoods of tribes in Kerala as the tribes in South Kerala are better than tribes in North Kerala. Kunhaman (1985) is of the view that abolition of bonded labour system has not helped the tribes to restore their livelihood problems; rather it increases exploitation due to the government failure in providing the essential safety nets. The Government of Kerala (1982) works as a testimony for the unequal representation of certain groups in enjoying benefits like reservation in Government jobs and recommends for certain corrective measures for this injustice. The problems of the tribal population differ in different parts of our Country. The basic skills of the tribal youth must be enhanced through appropriate training. The traditional agriculture must be practiced with proper financial support. The law must be benign to the tribal people so that they have access to the forest produce. These measures will try to improve the livelihood and reduce poverty among the tribes (Paltasingh and Paliwal, 2014).

The Human Development Report (2005) extensively explores the tribal situation in Kerala in the three major aspects such as income, education and health. Communities like Kattunaikan are still in the primitive stage of development earning their living by gathering forest produces. The Paniyar and the Adiyar are landless wage labourers who do not have a sustainable livelihood option. Some others still continue their status as cultivators like the Kurichiar and the Kurumar because of their better status in the community. The Malayarayars on the other hand are well educated tribal community and hence have less livelihood issues with high representation in the government jobs through reservation process entitled to the tribes.

1.5.3 Educational Backwardness

Ayyappan (1965) tries to situate the educational backwardness of tribal communities and highlights the social stigmas associated with the educational backwardness of tribal communities like the Kurichiar and the Paniyar. Gok (1965) and GoK (1970), as a policy framework to overcome the educational backwardness of the tribes, reservation to the tribes and improving educational infrastructure in tribal dominated regions have been considered important. Awareness about various schemes targeting education of the tribes is imperative in attaining the benefits associated with this. Some communities in the tribal group have reaped disproportionate gains as of the Malayaraya, the Kuruma and the Kurichya etc (Chathukulam et, al., 2013; Joseph, 2004). The current scenario of the tribal learning shows high levels of dropouts of the STs and to reduce the severity of this Ashram schools/residential schools were set up as per the recommendations of Dhebar Commission and the National Policy on Education (NPE) in many tribal regions of Kerala (George, 2007). In spite of all these efforts according to Kakkoth,(2012), dropout rate of 38.8, even in model residential schools percentages during 2006-11 is considerably higher than the average school level dropout rates. CSSEIP (2009) study identifies comparatively better educational status among the Malayarayar, the Kurichiar and the Kurumar, while the Paniyar, the Adiyar, the Irular and the Kattunaikar etc. show poor educational status in Kerala. In the Attapady region of Palakkad, the Irular community is in a better off position compared to the Mudugas or the Kurumbas in relation to the educational and other development levels (Kalathil, 2004).

1.5.4 Poor Health, Food and Nutritional Insecurity

Morbidity and mortality levels among the tribes in Kerala are incomparably high. Increasing social inequity (Haddad et, al., 2012), development of private health care system (Thresia, 2014), socio-cultural and

other difficulties in accessing healthcare (Levesque, et, al., 2013) and the deterioration in the quality of public healthcare sector are responsible for the poor health status among the tribes. (Rajaenan, 2010; Rajasenan and Sunitha, 2010) point towards the evidence of huge perception-reality gap in health status and hence it is difficult to assess their health status and healthcare needs. Kunhaman (1987) explains a close-knit link between disease burden and land alienation and also even dropouts in schools. Ignorance of the severity of many health issues including sickle-cell anemia and general anemic situation, several ill-health practices and problem of un-affordability to modern healthcare facilities expose the tribes to a situation of high vulnerability in their health situation. Ekbal (2013) highlights the fact of the combined impact of the loss of indigenous food, the unavailability of alternative nutritious food and the loss of employment opportunities led to widespread poverty and consequent health problems. Malnutrition and anemia among the pregnant women lead to low weight (average of 600 to 800 grams) at the time of delivery, which in turn is identified as the major cause for infant mortality in Attappady region (Suchitra, 2013; Prabhakaran, 2013).

1.5.5 Land Issues

Though land alienation is an all-pervasive issue to the tribes, its gravity is more in Kerala as the average land per individual is comparatively very less. Considering the severity of the issue the central Government appointed Dhebar Commission (1961) to look into this issue and the committee recommended for the restoration of tribal land alienated after 1950s. Concomitantly the Kerala Scheduled Tribes (Restriction of Transfer of Land and Restoration of Alienated Land) Act (1975) was passed. The government did not take any step until 1986 but had given retrospective effect from January 1982. The Kerala High Court had to interfere for the implementation of the law, but the state responded in a

different manner with amending the legislation favouring the settlers that all tribal land transactions up to 1986 were valid though most of the tribal land alienation happened before 1986. Even the interference of the Supreme Court in this respect is also of no avail and hence ignited fierce agitation on the part of the tribes for their lost land. The recent tribal history of Kerala is entwined with a series of struggles and agitation for the last three decades with the most recent one in 2015, which is known as the ‘stand up stir’ (Nilpusamaram) in front of the secretariat for restoration of their land right.

Elwin propounded that land alienation was the root cause of all evils of tribal population. He found that when there is no land, tribals lost their resistance power and was unable to sustain without any source of livelihood. The land of the tribals was pledged to finance their agricultural operations, which led to massive land alienation (Gopalarao, 1978). The root cause of land alienation is the increasing indebtedness problem of tribes which also resulted in bonded labour system. Majority of the land alienated is with the non-tribes. The Government should take appropriate measures to rehabilitate the tribes (Patel, 1998). Another opinion is that the officials ruthlessly snatched the livelihood of tribes (land) and left them in the darkness of poverty (Burman, 1982; Ayyappan, 1946). In order to relieve the tribes from the clutches of poverty, the Kerala Scheduled Tribes (Restriction on transfer of land and Restoration of alienated land) Act, 1975 was enacted. But the Act did not serve its purpose (Bijoy, 1999). The plight of the Adivasis has not been improved for years. They were alienated from their traditional habitat (Prakash, 2002).

Most of the tribes depend on non-agricultural income. Land alienation can happen in two different ways (i) permanent removal of title right through selling (ii) temporary transfer in the form of leasing. The most acute problem is that the

welfare programmes intended for tribes does not reach their hands (Velluva, 2006). The tribal livelihood revolves around land and when they are deprived of it, it leads to loss of identity. The insufficiency of forest produce results in ethnic conflicts (Fernandes, 2012). Haque (2012) suggests measures to protect land and forest rights of tribes which includes, (i) special drive by all concerned State governments to complete records of rights in all the scheduled and other areas in a time bound manner with active participation of Gram Panchayat and Gram Sabha. (ii) ban on transfer of tribe's land to non-tribes, through sale, lease or mortgage etc. (iii) complete ban on land acquisition in scheduled areas by government for private entities for industry, mining, real estate etc., (iv) special drive for the detection and restoration of land belonging to STs in a time bound manner. (v) Effective implementation of PESA, 1996 and Indian Forest Rights Act, 2006 for conferring real ownership and utilization of rights over forest resources by the tribes and other forest dwellers, for which massive legal aid and awareness building campaign among tribes would have to be initiated.

Suchitra (2013) writes that the influx of settlers to Attappady in Palakkad District started since 1950s. The original inhabitants gave their land to cultivation but the settlers took advantage of the fact that the tribes do not possess any legal documents. A Survey report by the ITDP, Attappady shows that the tribes lost 4064 ha between 1960 and 1977. The successive governments gifted the tribes a minor portion of their demand for land, but these lands were uninhabitable and not good for agriculture purposes also.

Chakravorty (2013) identifies that Kerala experiences the most fragmented small holdings. About 96 percentages of landholdings are marginal. Adivasis, who have the least private property (especially land), are the most heavily dependent on community resources. Common Property Resources forms the basis

of their livelihoods. Several Adivasi groups have developed systems of private ownership of land, but many have not, and use their land under common ownership.

The forest right of the Scheduled tribes in India needs to be realigned for effective forest management. The recent efforts of provision of more forest rights to the tribes resulted in more political control and new forms of exploitation leading to socio economic exclusion (Bose, 2012). The Forest Rights Act of 2006 fails miserably in the allotment of land to the tribes. The Act never serves the purpose of legitimising the land ownership rights which adversely affected the livelihood of the tribal people (Munster and Vishnu Das, 2012). The Adivasis hue and cry for land make them rebellious and were forced to demand autonomy. The failure of land rights can be traced back to the land tenure systems existed in India. Even after independence, the government failed to adequately represent the misfortunes of the tribal people (Gilbert, 2005). This paper attempts to revisit the historical perspectives of the evolution of land rights among the Adivasis of Kerala. The forest and revenue departments allot land as per the available written records. But these records failed to indicate the land allotted to the super natural elements which was the sole of ethnic identity of tribes. The land is allotted to the tribes only on the basis of historical written records rather than on actual practice (Moorkoth, 2012).

The process of land alienation increases the number of peasants in the society. The Judicial rights conferred on the 'janmis' led to eviction of poor from their land due to stringent land tenure systems. The caste system also contributes to this menace which led to the economic ruin of the impoverished class. The indebtedness of the poor families leads to the emergence of new social class known as the "money lenders" which ultimately converted the poor into

agricultural casual labourers (Karat, 1973). The author questions the tribal identities represent by the different tribal organizations in their quest for land. The different tribal movements have not adequately represented the tribal hues and cries rather they belonged to political ideologies. The tribal anxieties are not properly represented and addressed (Steur, 2010).

The land reforms of Kerala experience deficiencies. These intensified the inequities in land distribution. The land that has been allotted to large plantations must be revised and re allotted to the landless poor people among the tribes. This helps in uplifting the socio-economic status of the tribals (Rammohan, 2008). The transfer of land from a tribal to a non-tribal was due to indebtedness of the tribal population. The size of the land cannot be viewed as a single factor contributing to the peasantry in the economy. But the economic factors such as availability of funds, the economic status of the household also contributes to the failure of land relations (Jyotishi, 2002). Land is seen as a source of exploitation which has created greater inequalities among the tribes. The structural changes leading to greater industrialization and development of the economy induce the tribes to move to the denser forest areas (Rupavath, 2009).

1.5.6 Studies on Housing Policies-Scheduled Tribes

Mohanty (2006) categorizes the major problems faced by the tribes of Kerala. The problems were 1) indebtedness 2) access to the forest land produce 3) agriculture 4) housing 5) education 6) land alienation and 7) alcoholism. He suggests three major approaches such as segregation, assimilation and integration. He describes the pathetic condition of ST houses. Most of the houses have only one room with no proper drainage and lavatory facilities. It is very difficult to get raw materials for the construction and repair of their houses. He recommends for interest free loan for house construction. Ajitha (2014) propounds that the

availability of basic amenities is very low in tribal colonies. 55.74 percent of the total tribal households of the State do not avail drinking water facility within the premises. The government programmes have not been beneficial to the tribes. Remoteness, regional differences and existing ethnic issues are some of the reasons for deprivation.

Mishra (2012) observes that residential segregation is a matter of serious concern when it considers a low-income social group. The influence of such a group will be immense and will impair city governance. The local governments should take the initiative in tackling such a phenomenon and should be seriously considered in urban planning. Pradeep and Abraham (2015) claim that 73.71 percent of TSP expenditure is on housing schemes. The most important objectives of TSP are to build houses, maintenance and repair of ST houses, colony development, IAY contribution etc. There should be proper training to identify empowerment programmes in TSP.

1.5.7 Studies on Residential segregation.

“A group that is highly centralized, spatially concentrated, unevenly distributed, tightly clustered and minimally exposed to majority members is said to be residentially segregated” (Massey and Denton, 1988). Residential segregation includes five dimensions of measurement corresponding to different spatial variations such as evenness, exposure, concentration, centralization and clustering, each of which have different social and behavioural implications symbolizing different facets of segregation (Massey and Denton, 1988).

Ever since the publication of the pioneering work by Earnest Burgess (1925), the issue of residential segregation in the urban areas begins to draw attention from social scientists around the world. Majority of the subsequent works dealt the issue of residential segregation, of the Afro-Americans and their

ghettoisation in the North American cities and mainly focused either on mapping and measuring segregation scale or examining the forces responsible for or its effects experienced by the Anglo-American cities (Holloway, 2000). However, it is interesting to note that the residential segregation studies are largely confined to urban studies, and almost ignored the phenomenon of segregation on the countryside.

Traditionally, Indian society has been very stringent with the rules of the group they belong to. These groups are not their voluntary choice but prescribed at birth, called 'caste'. The importance of caste in a man's life in traditional south Indian Society has well been quoted by Thurston (1913), "A man's caste affects his life from its beginning to its end. It frequently determines his occupation, and it often fixes his residence for him, most villages being divided into caste quarters. The social position and the limits within which he may marry are decided by his caste, and so is his name, and even sometimes the clothes which he and his womankind wear".

The study examines the dismal picture of land relations and its subsequent results in housing segregation among the tribes of Kerala. The policies of the government failure miserably in creating a niche for the landless tribal people. It identifies the housing and settlement patterns of the tribes in Kerala (Rajasanen, 2015). When such a system exists, individuals have little choice to make, he is already been placed at a particular position in the societal hierarchy before he is born. The people belonging to same social stratum tend to live segregated from other sections of the population. In this scenario, the most disadvantaged is the ones that find themselves at the very bottom of the hierarchy, in Indian case; it is the people who are belonging to the untouchable castes or today's SC and ST. They are often forced to live in the outskirts of the villages and were engaged in

unhealthy and ‘impure’ jobs like cremating dead bodies, tanning and scavenging. Even the mere presence of them is considered impure by the upper caste people. With industrialization and urbanization gaining strength in India, the strongholds of caste hierarchy and related norms starts to thin down; at least in the large cities and towns of the country. The more relevant question here is whether this has actually led to desegregation of ST population and any changes in their socio-economic lives.

The residential pattern of Indian metros point towards the existence of segregation based on socio-economic status of the individuals correlated with caste based segregation. For instance, Mumbai, the largest metropolitan city in Indian as well as with the largest slum in South-Asia house majority of the SC and ST population in the city (Vithayathil and Singh, 2012). The case of Kolkata is also not different. Even today, there is high level of residential segregation based on caste (ethnic) and class in the city; the prosperous Rajasthan entrepreneurs occupy the Burrabazar or Park street area, professional Bengalis and South Indians reside in the South Calcutta and around the Lakes respectively (Clark and Landes, 2010). The study explored the human choices that are leading to live a segregated life. The economic opportunities and the ethnic identities push them to segregation. The highly skilled or educated people among the ethnic groups exhibit lower tendencies to lead a segregated life (Borjas, 1998).

Although our country has a long history of segregation, empirical evidences substantiating the continuance of caste based residential segregation in its villages, towns as well as metropolitan cities, the urban studies literature on residential segregation in India is at its infancy (Vithayathil and Singh, 2012; Dupont, 2004; D’Souza, 1978). Apart from few studies focusing on the measurement of residential segregation in Indian cities and towns (Dupont, 2004;

D'Souza, 1978; Mehta, 1969), its various dimensions and intricacies associated are hardly explored.

1.5.8 Development Issues

The discussion paper recommends significant changes in the direction of development policies. The development policies must be inclusive and it should reflect the traditional and ethnic mode of life of tribals. The voice of the tribals must be heard and it should be the focus of the developmental policies (Kalathil, 2004). The fifty years development history of Kerala is ubiquitous with diverse inequalities. The marginalised population is often cited very low in the development trajectory of our State. The land reforms are biased resulting in unequal distribution of land among the marginalised population. As a financial instrument, the Budget fails to achieve the objectives of equity. The policy framework of the government needs a substantial renovation to be more inclusive (Oommen, 2014).

1.6 Theoretical Framework

Housing segregation framework originated from the self-segregation of the Blacks from the Whites as the Blacks prefer to stay in Black's majority neighbourhoods (Boustan, 2013). This hypothesis according to Thernstrom and Thernstrom (1997) is seemed to be all pervasive irrespective of community or regions and hence becomes the theoretical bases for housing segregation studies. Akin to this form of housing segregation, other form like state induced segregation is prominent in Kerala as of STs and SCs. In this case it is a form of rehabilitation of the houseless under different rehabilitation schemes by the government. Soon it becomes a colony and based on the rehabilitation schemes the people coming there are from particular communities like the SCs and the STs hence it becomes 'SC colonies' or 'ST Colonies'. Implications associated with

this kind of colony formation are manifold as the areas connected to it become poor in economic, social and service amenities. Hence these affect on the economic outcome of the people living in the segregated houses more than others and it is quite often suggested as the ‘casual effect’ of segregation. Analysing the impact in terms of its degree it is different across regions. But extreme in the case of colonies with adverse spill-overs, generating a general environment of underperformance of individuals in education and labour markets which in turn will become breeding grounds of anti-social activities. Besides, residential segregation has negative influence on perception. Based on the perception postulates Ogbu (1998) espouses the limitations in occupational opportunities in explaining the gap in school performance, which is also supported by Ainsworth et, al. (1993) in regard to the oppressed individual’s antagonism towards the dominant group. Based on spatial-mismatch hypothesis Cutler and Glaeser (1997) explain the detrimental impacts on the educational attainment, employment, and welfare participation of households living in those neighbourhoods are likely to be stronger and have a strong trade-off.

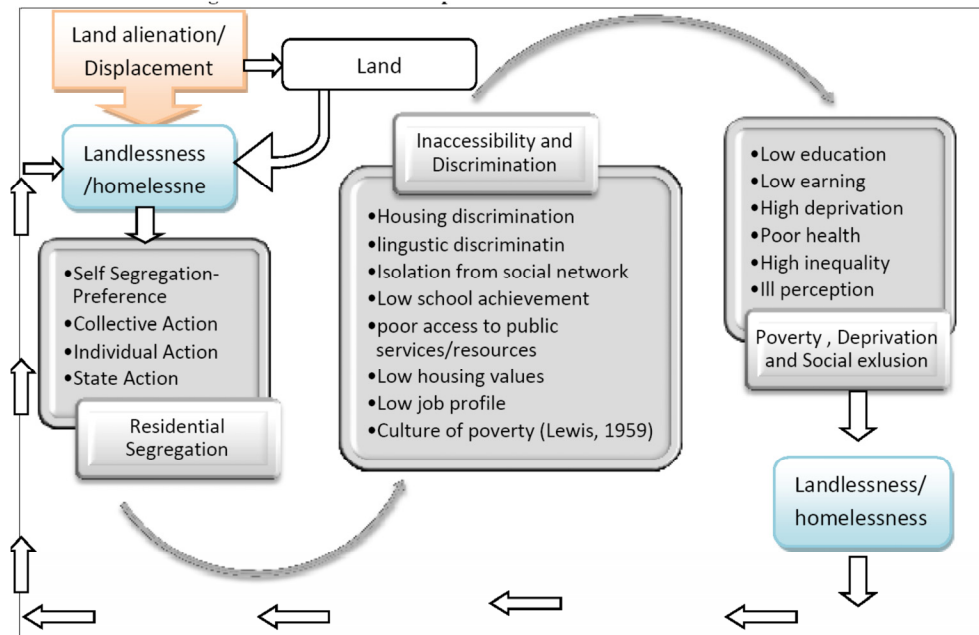


Figure 1.3 : The schematic representation of the theoretical framework

Land alienation of the STs works in many levels such as, non-tribe settlers in the tribal areas, the Forest Conservation Act and development related. SCs land alienation is primarily connected to developmental displacements as they live mostly in the city periphery. Legislations like the Kerala Land Reform Act (1963), Kerala Prevention of Eviction Act (1966) Kannam Tenancy Abolition Act (1936), Land Reform Act (1969), Kerala Arable Forest Land Assignment Rules, (1970), Kerala Land Assignment Rule (1964) etc have not been effective in restoring the land to the landless SCs and STs. Hence, they move from one place to another for settlement. There are situations of individual preference, collective preferences and deliberate actions on the part of the government in such segregations. Here begins the vicious nexus of segregation with myriad issues of sharing limited and poor resources by many followed by inaccessibility and low-quality infrastructure. The contributing effect is the continuation of the culture of poverty (Lewis, 1959)

with low material attainment incapable of escaping from the vicious circle of poverty, deprivation and social exclusion. This route finally puts them as landless and homeless with its full strength as illustrated in Figure 1.3.

1.7 The Research Problem

The caste-based segregation and the colonization makes the STs to develop a specific pattern in their dwelling, as is seen in the global spheres of the poor a new pattern of residential segregation has emerged in the abodes of the tribes with the adage “Residential Segregation”. As the pattern is emerged for the poor the inaccessibility and associated problems create havoc in their life. This is visible not in one aspect of their life but it is entwined with the life and livelihood and even in the socio-cultural spheres. This is the reason for their low income; low social mobility, low cultural integration, low level of education, high dropouts, and low asset base which altogether results in poverty trap and social exclusion. All these make problems of survivability and incapability to develop a decent way of life.

Though issues are many, land alienation occupies the first position among the diverse forms of alienation. Many of the historical factors are responsible for land alienation. The Colonial society took hold of their lands by way of different land settlement systems. The oppressed class was unable to own the land but they were tied to the land as labourers. The large influx of migrants as settlers to the forest areas also forced the tribal community to write off their lands. The settlers used forged documents to keep these tribal population off from their own land. Land reforms only partially satisfied the aspirations of the oppressed class for need of land. The livelihood of the tribal population revolves around land as the only tangible productive asset. Their society is an agrarian society. The loss of land pushed them into the clutches of poverty. The tribal population mostly lives

in settlements, known as Ooru, away from the general population. They reside segregated from the mainstream society. This type of segregation makes them devoid of the vices and virtues of the outside world. The illiteracy of the tribes is also another limiting factor in their integration with the general population.

Though land alienation and education backwardness prevent them from doing the economic activities and thereby the asset generation for their survivability and sustainability, the inaccessibility to most of the basic activities and poor infrastructure makes their quality of life very poor pitiable. This is because most of the tribal abodes in Kerala are in the remote forest which lacks basic facilities like roads, hospitals, drinking water, schools and government-oriented service centers. Huge allocations are made by the central and state governments for these activities, but lack of governance make these useful to the STs for their upliftment. This study is an attempt to unravel the dismal picture of residential segregation and its associated dynamics in the life and livelihood of the tribe's o Kerala. It is also tried to develop appropriate policy suggestions to make the tribes to live in confidence with other social groups in a progressive stat like Kerala.

1.8 Objectives

The objective of the research work is to examine the problems of residential segregation and inaccessibility focusing on the socio-economic status and thereby the issues and impacts of these in a social class framework of the tribes of Kerala cornering the tribal hubs of Wayanad, Palakkad and Idukki districts.

The specific objectives of this study are: -

1. To study the residential segregation in inter-community mirror among the tribal communities in the tribal predominated districts of Wayanad, Palakkad and Idukki.
2. To analyse the impact of residential segregation and the concomitant social exclusion of the tribal community of Kerala in various socio-economic determinants.
3. To analyse the reinforcing factors that are leading to residential segregation and land alienation.
4. To explore the inter-regional differences, in a forward-backward dichotomy, of residential segregation patterns of the tribes and its impact on their socio-economic milieu.

1.9 Hypotheses

The study is based on the following hypotheses: -

- 1) There are considerable inter-tribal differences in the socio-economic levels.
- 2) Housing segregation and poverty are interrelated.
- 3) Housing segregation and inaccessibility lead to social exclusion.
- 4) Tribes poorly perceived about their development and inclusion.

1.10 Data and Methodology

The research study uses both primary and secondary data. The primary data are collected from the three tribal predominant districts of Wayanad, Palakkad and Idukki districts with the help of a structured interview schedule. For eliciting qualitative information Participatory Rural Appraisal (PRA) is also made use of. The total sample size of the study is 300. Multi-Stage Stratified Proportionate Random Sampling Technique is used to select the sample household in the four strata at district, taluk, settlement and community levels. The first stage selection is based on the district having high ST concentration. Accordingly, Wayanad, Palakkad and Idukki were selected. Community sub-group dominance and its percentages in the total community is considered as the proportion basis for choosing the ST communities samples. A detailed sampling framework is shown in Figure 1.4.

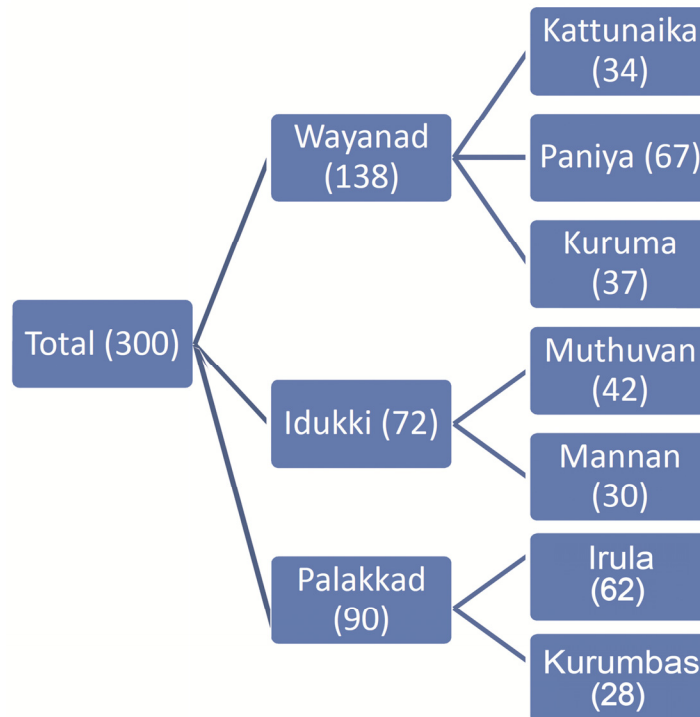


Figure 1.4 : Schematic form of the Sampling Framework

Figure 1.4 and Table 1.3 depicts the sampling frame of the community and the district with which the samples are selected for the study.

Table 1.3 : Sampling Frame

Name of the District	Communities Selected
Wayanad	Kattunaikan, Paniya, Kurumar
Palakkad	Kurumbas, Irula
Idukki	Muthuvan

In addition to the primary data, secondary data are also collected from the government agencies such as Scheduled Tribe department, KILA, ITDP offices and KIRTADS etc. The demographic data have been obtained from different census reports, economic reviews and annual reports of Ministry of Tribal Affairs, Government of India.

1.11 Data Analysis

Data are analyzed using appropriate statistical tools such as segregation index for understanding the degree of residential segregation among the tribal communities, correspondence analysis is used to understand the dynamics of socio-economic differences between the forward and backward tribes and its relation to the residential segregation pattern and factor analysis to identify the perception of tribes towards residential segregation. Radar charts are also used to depict various socio-economic indicators. Index of Dissimilarity has been calculated using the Census data.

1.12 Study/Area Profile

1.12.1 Palakkad District

Palakkad is a part of the erstwhile Malabar district of Madras Presidency. The district accounts for about 11.5 percent of the total land area of the state of Kerala, with the share of population is 8.20 percent. The literacy rate of the district is lower than the state average. Palakkad district is situated in the South West Coast of India. The district is bounded on the North by Malappuram District, in the East by Coimbatore district of Tamilnadu, in the south by Trichur district and in the west by Trichur and Malappuram districts. The total Geographical Area of Palakkad district is 4480 sq.k.ms, representing 11.53 percent of the State's Geographical area. The important Scheduled Tribes are Irular, Mudugar, Kurumbar and Muthuvans. They are inhabited in Attappady and Parambikulam areas. The basic socio-economic data of the district is shown in Table 1.4.

Table 1.4 : Basic Socio Economic Data-Palakkad District

Total Population	Male	Female
2,809,934	1,359,478	1,450,456
Total ST Population	Rural	Urban
48972	47023	1949
Total SC Population	Rural	Urban
403833	322951	80882
Density	627 people per sq.km	
Literacy rate	88.51 %	
Sex Ratio	1067 females per 1000males	
	SC	ST
Percentage of Unemployment	6.1	4.5
Dropout Rate (%)	1.56	3.3
Percentage of Population deprived of basic necessities	52.9	65.3
Rank – Incidence of Deprivation	12	

Source: Panchayat level Statistics, 2011 and STDD data

In Palakkad District, Females outnumber males. Both Scheduled caste and Scheduled tribe population is highest in rural areas. A higher SC population remains unemployed than the tribal population. Dropout rate is more among the tribal population. About 65.3 percent of tribal population is deprived of basic necessities. Homelessness among the STs is 16.76 percent.

1.12.2 Idukki District

The district's name, 'Idukki' is supposed to be derived from the Malayalam word 'Idukku' which means a narrow gorge. This District has the agro-climatic conditions suitable for the cultivation of plantation crops like tea, coffee, rubber, coconut, cardamom, pepper, etc. Land Holding Pattern of the total area of 5,10,522 Ha., 2,17,005 Ha are under cultivation. Non food crops occupies about 90,000 Ha. The per capita availability of the land in Idukki district is 0.24 Ha. The District having an area of 436345 Sq. Km is the second largest in Kerala. The District lies in two physiographical divisions i.e., high land and midland. According to 2011 census Idukki District has a population of 1108974. The density of population is 255 per Sq. Km. Table 1.5 provides an overview of the socio-economic profile of the district.

Table 1.5 : Basic Socio Economic Data- Idukki District

Total Population	Male	Female
1,108,974	552,808	556,166
Total ST Population	Rural	Urban
55815	55243	572
Total SC Population	Rural	Urban
145486	143340	2146
Density	255 people per sq.km	
Literacy rate	91.99%	
Sex Ratio	1006 females per 1000males	
	SC	ST
Percentage of Unemployment	2.0	17.3
Dropout Rate (%)	2.99	4.06
Percentage of Population deprived of basic necessities	40.8	65.3
Rank – Incidence of Deprivation	13	

Source: Panchayat level Statistics, 2011 and STDD data

The demographic profile of Idukki district follows the similar pattern of Palakkad district as the majority SC and ST population lives in rural areas. The tribal population is the worst hit in terms of unemployment in Idukki district. The situation is also pathetic in the case of dropout rate also. In Idukki District, 7.09 percent of tribal families are houseless.

1.12.3 Wayanad District

Wayanad is a district in the north-east of Kerala state, India with headquarters at the town of Kalpetta. Wayanad is the only district in Kerala that borders both the neighboring states Karnataka and Tamil Nadu. According to the 2011 census Wayanad district had a population of 816,558. As witnessed in the

other districts also, the majority SC and ST population lives in rural areas. About 26.1 percent of tribal population remains unemployed. The dropout rate is highest. The majority of the tribal population is deprived of basic necessities. Table 1.6 depicts the socio-economic profile of the district.

Table 1.6 : Basic Socio-Economic Data- Wayanad District

Total Population	Male	Female
817420	401684	415736
Total ST Population	Rural	Urban
151443	148215	3228
Total SC Population	Rural	Urban
32578	30378	2200
Density	383 people per sq.km	
Literacy rate	89.32%	
Sex Ratio	1035 females per 1000males	
	SC	ST
Percentage of Unemployment	0.7	26.1
Dropout Rate (%)	4.57	4.19
Percentage of Population deprived of basic necessities	51.5	66
Rank – Incidence of Deprivation	14	

Source: Panchayat level Statistics, 2011 and SCDD data

The existence of humans in Wayanad district dates back to the stone age with prehistoric rock carvings found in the Edakkal caves shedding light into the fact that the human civilization existed in the district almost 5000 years ago. It is believed that the ancient Wayanad was ruled by the Vedar tribes which later came under the rule of the Pazhassi Raja of the Kottayam Royal Dynasty. The hegemony of the Kottayam leaders declined with the invasion of the Mysore rulers in the 18th century. Further, the region came under the British rule in the 19th century; opening up the region for the cultivation of tea and other cash crops. This resulted in the large scale migration, further influencing the demographic pattern as well as the cropping and agricultural pattern of the region.

As per the Census 2011, about 151443 (18.5 percent) of the total population in the district are tribes. Paniyan-45.11 percent, Mullu Kuruman-13.7 percent, Kurichian-16.5 percent, Kattunaikkan-11.13 percent, Adiyar-7.31 percent and Urali Kuruman-4.22 percent are the major tribes in the district based on population (STDD, 2012). In terms of occupational pattern, one can classify the tribes into three viz. marginal farmers, workers/labourers in the agricultural sector and forest dependents. Paniya, Adiyar and Urali Kuruma work as agricultural labourers. Traditionally, Paniya and Adiya were bonded labourers and Urali Kuruman were artisans. The three communities constitute 55 percent of the total tribal population in the district. Kattunaikka, classified as the primitive tribal groups as per the government records is a forest dependent community working as forest labourers or engaged in collection of forest produce. The community constitutes 11 percent of the total tribal population in the Wayanad district. The marginal farmers groups include two tribal sub groups, viz. Kurichian and Mullu Kuruman who constitutes 35 percent of the total tribes in the district. The high land holding pattern and better socio-economic and livelihood situation of these tribal communities have made them better off compared to the vulnerable tribal

sub groups like the Adiyar, Paniyan, Kattunaickan Urali and Kuruman (Rajaseenan, 2010; Rajaseenan, 2015).

1.13 An overview about the ST community in the sample Districts and Community Profile

1.13.1 Tribes of Wayanad

Kattunaika, Paniya and Kuruma are the three tribal sub groups surveyed as part of the study.

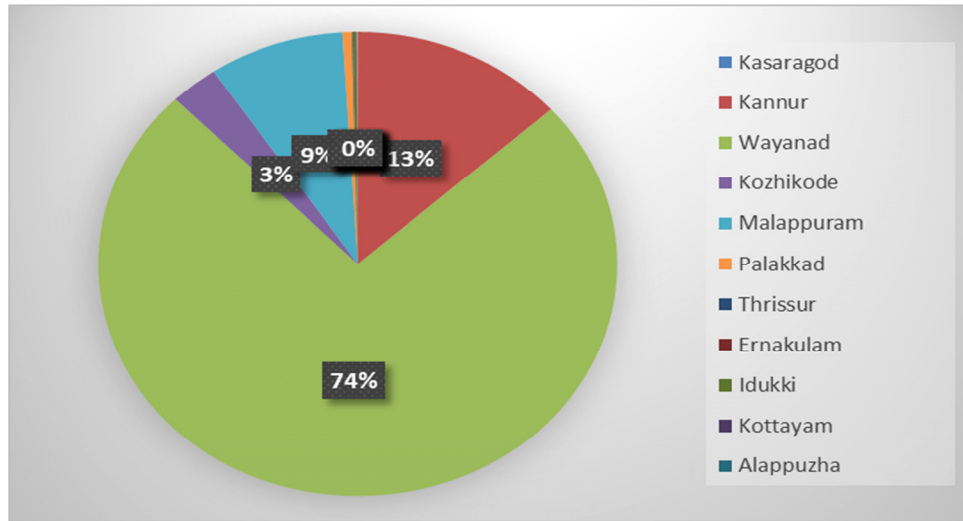
1.13.1.1 Paniya

Paniya are the largest tribal sub group of Kerala constituting 21.8 percent of the total ST population in the State. The word Paniya came from the Malayalam word ‘pani’ meaning work. This is because majority of the community members are labourers. Historically, they are believed to be brought to work on the fields of landlords of Malabar. In fact, it is told that they were traded like commodities which took place at the Valliyoorkav temple during festival times. They worked at the paddy fields and either lived in the hill slopes and paddy field adjacent to the land belonging to the landlords. It is believed that along with the land, the landlords also sold them to the next land owner. The practice of dependence on the landlords was continuing even after the abolition of bonded labour. By the 19th century, a lot of coffee plantations were set up in the district and the Paniya community members were used as workers to clear forest for developing land for plantations.

Table 1.7 : District wise distribution of Paniya population

Paniyan	Number
Kasaragod	13
Kannur	14600
Wayanad	80989
Kozhikode	3309
Malappuram	9199
Palakkad	630
Thrissur	45
Ernakulam	27
Idukki	234
Kottayam	25
Alappuzha	12
Pathanamthitta	8
Kollam	8
Thiruvananthapuram	47
Total	109147

Source: Calculated from STDD data



Source: Calculated from STDD data

Figure 1.5 : District-wise percentage share of Paniya community in Kerala

With regard to the concentration of the community, the group is spread in all the three blocks of the districts as well as in adjacent areas of Kozhikode, Malappuram and Kannur districts. They are also found in the Gudallur thaluk of Nilgiri district. Despite the fact that this tribal sub group is the largest in terms of population, the representation in the local bodies, leadership positions in the political parties is very less. Despite the reservation in jobs, it is a rarity to find them in government jobs. Table 1.7 shows the district-wise population of the Paniya community in Kerala and the percentage share of the community in each district is depicted in Figure 1.5.

1.13.1.2 Kuruman (Mullu Kuruman)

Kuruman, one of the most dominant tribal sub groups in the district was traditionally engaged in wood cutting and collection of minor forest produce. Kurumas have different subdivisions: Mullu Kuruma, (Mullu means bamboo) who collects bamboo from forest. Then Kuruma (Who collects honey from forest) are also known as Cholanaikans. Urali Kuruma also Known as Bettu. Kuruma (principally wood cutters and fish hunters). Their present occupation is cultivation.

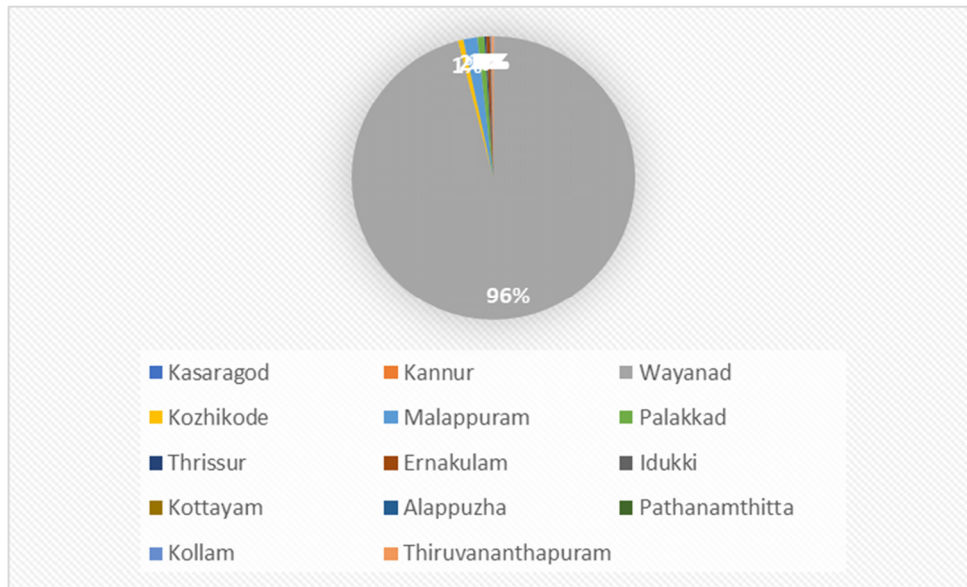
The concentration of Kuruma community is mostly in the Sulthan Bathery block of the district. The percentage share of this community in the total tribal population of Wayanad is 13.7 percent. The community is also found in adjoining areas of Gudallur Taluk of Nilgiri District of Tamil Nadu. Traditionally they were settled agriculturists, as they worked as agricultural labours and marginal farmers. Presently the community has benefitted a great deal from the tribal development programmes in the state with community members actively engaged in political and public life in the district. They are having jobs in government services and even have representation in the Legislative Assembly of Kerala. The community

has accepted modernity to a great extent and has detribalized fairly. The population of Kuruma community in Kerala for the 14 districts of Kerala is shown in Table 1.8. The district wise population share of the community is depicted in Figure 1.6.

Table 1.8 : District wise distribution of Kuruman population

Kurumans	Number
Kasaragod	0
Kannur	25
Wayanad	23556
Kozhikode	148
Malappuram	393
Palakkad	197
Thrissur	49
Ernakulam	98
Idukki	25
Kottayam	0
Alappuzha	0
Pathanamthitta	0
Kollam	25
Thiruvananthapuram	49
Total	24589

Source: Calculated from STDD data



Source: Calculated from STDD data

Figure 1.6 : District-wise percentage share of Kuruman community in Kerala

1.13.1.3 Kattunaikan

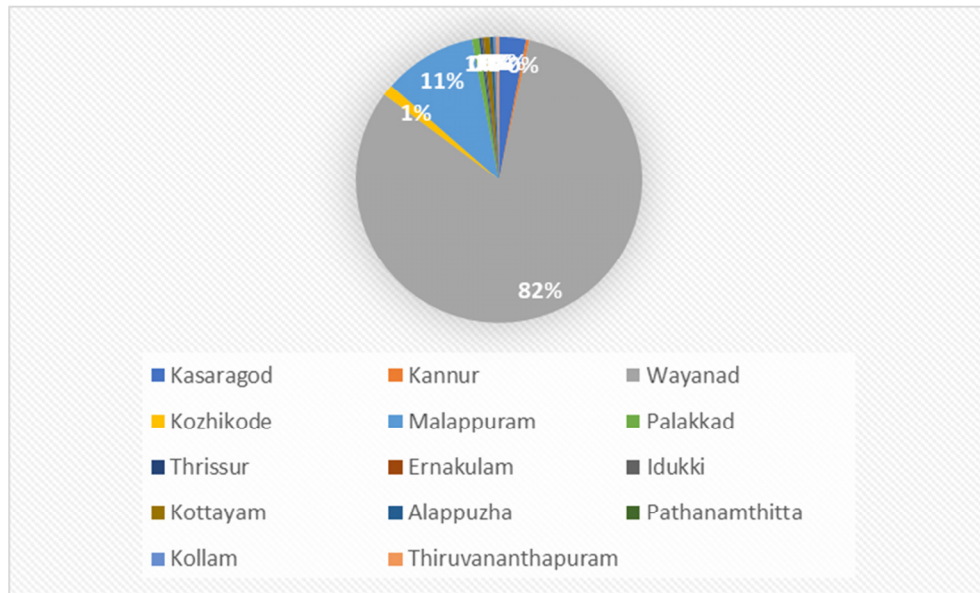
The community is notified as the primitive tribal group owing to their relative stage of development. The community was traditionally hunter gatherers. They were largely depending on forest resources and leading an independent life till the last century. The community which still inhabits mainly in the forest and fringes, is still dependent on the collection of the non-timber forest produce for their livelihood. They also cultivate in the area allocated to them by the forest officials and work as labourers in the forest as well as the agricultural and plantation sector. Shrinking forest resources and lessening opportunities in agriculture sector has substantially affected the community, making them one of the most vulnerable sections in the Adivasi communities of the State. 81 percent of the total Kattunaika population of Kerala is in Wayanad district. Table 1.9 and Figure 1.7 depicts the district-wise distribution of the community in the state.

While the cultural as well as their traditional tribal structure is still intact owing to the lesser outside influence of the community, the opportunities for them are also limited. In comparison with the other Adivasi communities of Wayanad, they are least exposed to ‘modernity’. Government welfare programs meant for this community have not provided intended results.

Table 1.9 : District wise distribution of Kattunaikan population

Kattunaikan	Number	Percent
Kasaragod	720	3.044512
Kannur	82	0.346585
Wayanad	19348	81.81448
Kozhikode	296	1.250425
Malappuram	2486	10.51308
Palakkad	191	0.808699
Thrissur	56	0.237853
Ernakulam	2	0.006796
Idukki	64	0.271831
Kottayam	161	0.679579
Alappuzha	87	0.366972
Pathanamthitta	18	0.074754
Kollam	67	0.285423
Thiruvananthapuram	71	0.299015
Total	23649	100

Source: Calculated from STDD data



Source: Calculated from STDD data

Figure 1.7 : District-wise percentage share of Kattunaikan community in Kerala

1.13.2 Tribes of Idukki

Muthuvan and Mannan are the two tribal sub-groups surveyed from Idukki district.

1.13.2.1 Muthuvan

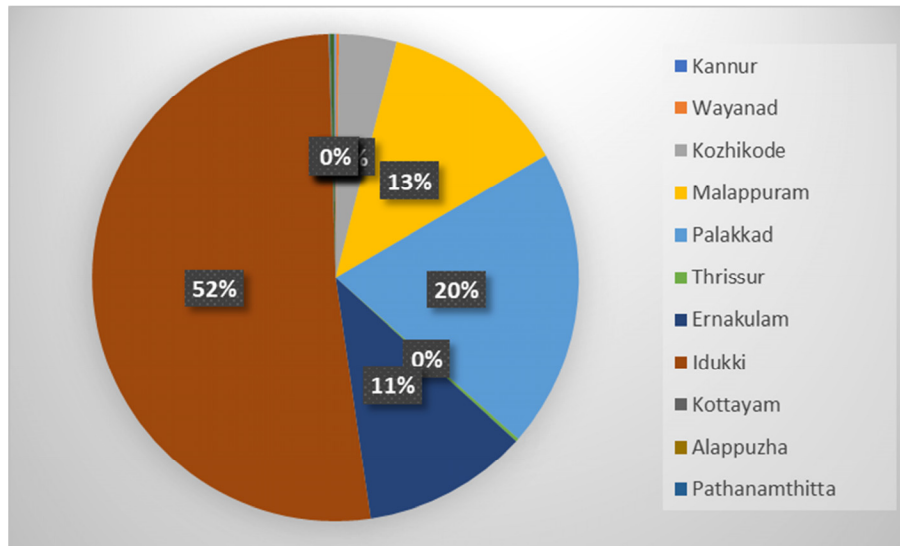
The community is believed to be migrated from the Western Ghats region of Tamil Nadu. More than 50 percent of the community resides in Idukki district and scattered across areas like Devikulam, Adimali and Nedumkandam block panchayath of Idukki district. Historically, the community members are believed to be the obedient subjects of the royal dynasty of Madurai. When the dynasty was thrown out of power, the royal family migrated to several parts of central Kerala like Travancore, and accomplished the famous dynasty of Poonjar. The tribes while going to Kerala, carried the images of the deity of the royal family Madurai Meenakshi at the back of their bodies. What is also interesting is that the

word Muthuvan has been taken from the word "muthuku" which stands for back in both Malayalam and Tamil languages. Anthropologists have thrown some lights on the lifestyle of these Muthuvan tribes. It is one of the few tribes who has still abstained from developing connections with the people of the outside world. Table 1.10 and Figure 1.8 are an illustration of the district wise population and percentage share of the community

Table 1.10 : District wise distribution of Muthuvan population

Muthuvans	Number
Kannur	11
Wayanad	43
Kozhikode	864
Malappuram	2843
Palakkad	4494
Thrissur	48
Ernakulam	2490
Idukki	11733
Kottayam	6
Alappuzha	6
Pathanamthitta	11
Kollam	64
Thiruvananthapuram	17
Total	22630

Source: Calculated from STDD data



Source: Calculated from STDD data

Figure 1.8 : District-wise percentage share of Muthuvan community in Kerala

1.13.2.2 Mannan

The Mannan tribal community predominantly inhabits in the Idukki district and more than 95 percent are found in the region. They are also found in Ernakulam and Thrissur districts. They are believed to be the decedents of the King of Maduarai. In Tamil language, Mannan means the King. They are considered as the rulers of the forest. The dialect is a mix of Tamil and Malayalam. Among the STs in Kerala, Mannan is the only tribal sub group being headed by a King or Raja called 'Kozhimala Raja Mannan' who is the prime decision maker and final word in the group. They were also given special rights by the Poonjar rulers for managing and collecting taxes under their jurisdiction. Their main occupation is shifting cultivation and they are also engaged in collection of non-timber forest produce. Even though they have an impressive sex ratio, their high death rate and low life expectancy, along with poor educational and employment profile is a cause of concern.

1.13.3 Tribes of Palakkad

Irular and Kurumbar are the two tribal communities surveyed in Palakkad district.

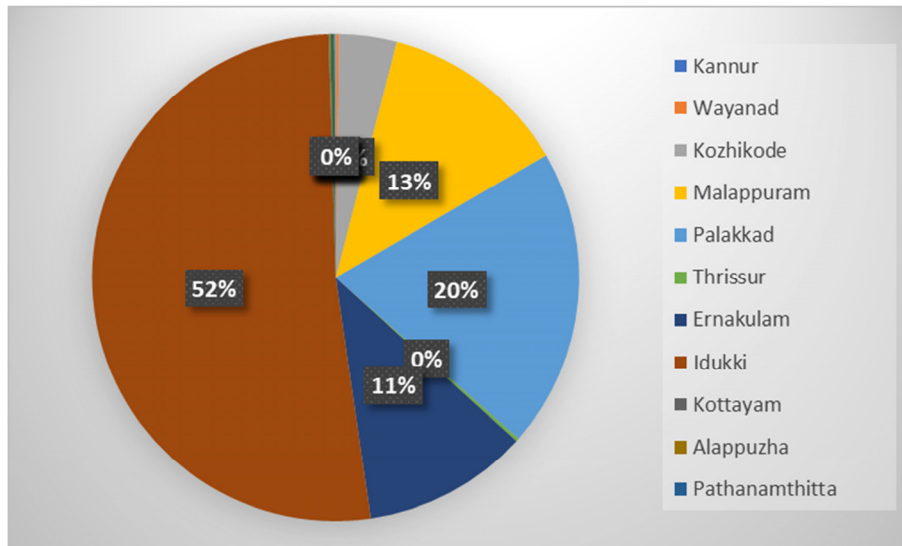
1.13.3.1 Irular

Irular, one of the major tribal sub-groups in Kerala, resides in Attapady village and the Silent Valley region of Palakkad district. 99.03 percent of the total Irular community in the state resides in the Palakkad district. Majority of the tribal hamlets in Palakkad belong to the Irular community. The community also has its presence in the Coimbatore and Pollachi districts of Tamil Nadu. The word Irula has been derived from the Tamil word, Irul either implying the dark complexion of the Irula's or their being constantly spotted by villagers in the ancient past as distant silhouettes in the forests. Table 1.11 and Figure 1.9 depicts the district-wise details of the spread of the community in Kerala.

Table 1.11 : District wise distribution of Irular population

Irular	Number
Kasaragod	4
Kannur	12
Wayanad	6
Kozhikode	3
Malappuram	8
Palakkad	30663
Thrissur	102
Ernakulam	27
Idukki	22
Kottayam	3
Alappuzha	1
Kollam	77
Thiruvananthapuram	35
Total	30962

Source: Calculated from STDD data



Source: Calculated from STDD data

Figure 1.9: District-wise percentage share of Irular community in Kerala

1.13.3.2 Kurumbar

Kurumbar, one of the primitive tribal groups in Attappady region of Palakkad district reside in Kadukumanna, Anavayee hamlets in the boarder of Tamil Nadu. Even though their traditional activity is cultivation, most of them have given up cultivation. The attack from wild animals and lack of proper irrigation facilities are the major reasons for giving up their traditional occupation. They are classified as PVTG groups due to the severe poverty and malnutrition issues. They are eligible for food packages under the government scheme which they are dependent on. Due to their disassociation with the traditional occupation, they presently also work as labourers in the agricultural and non-agricultural sectors along with small cultivation inside the forest area. Even though they do not have ownership rights over the cultivated land, the possession entitlement of the land enables them to engage in small-scale cultivation.

1.14 Limitations of the Study

The study highly relied on primary data on the basis of a structured interview schedule. There are biased responses which affected data analysis. Permission was denied to the interior tribal settlements owing to official reasons and this hindered in collecting the requisite sample of some communities coming in the study. Inaccessibility was another constraint in data collection. Most of the respondents were not giving the required information for the study either because of their ignorance of the issues or because of the purposeful bias in giving the information, which in turn also distort the statistical reliability of the study.

1.15 Scheme of the Study

The research study is divided into seven chapters (Figure 1.10). The first chapter is an introduction to the research study undertaken. It deals with the background, research problem, research objectives, methodology etc.

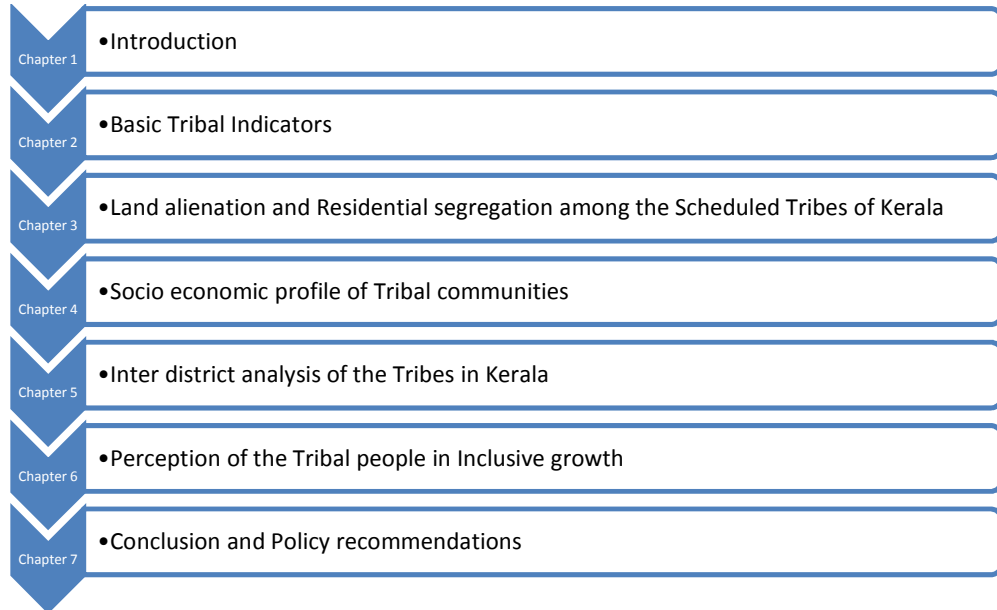


Figure 1.10 : Scheme of the Study



Chapter 2

BASIC TRIBAL INDICATORS

Chapter 2 gives an explanation of the basic tribal indicators based on secondary data. It focuses mainly on occupation, education, health, ownership of land, housing facilities, participation in development activities and access to basic facilities and services. These are important for the tribes to have a normal and decent life. But the situation of the tribes in the Kerala situation is pathetically poor and the data show that most of the tribal indicators need change for attaining a normal life in the difficult terrain.

2.1 Occupational Pattern

The over dependence on agriculture and allied activities is the major aspect of the tribal economic which often is a weakness due to the dwindling nature of returns from agriculture. The results are evidential as 70 percent of the total tribes in the area are engaged in agriculture and allied activities. Only 20 percent are working in the non-agricultural sector as per the data. The results are clearly depicted in Table 2.1 and Figure 2.1. Majority (81.43 percent) in the agricultural sector is labourers than those who do self-employment and 17.55 percent are farmers. The results testify that those engaged in agricultural activities are high among the tribes, it is a fact that majority are wage earners. In the non-agricultural sector, 50 percent work as wage labourers in the construction sector. It also shows that 70 percent working in the forestry sector are engaged in forest related work and 22 percent are engaged in collection of forest produce. In fact, in all the major sub-sectors in which the tribes are working, most of them are labourers with very less percentage having a regular income earning avocation.

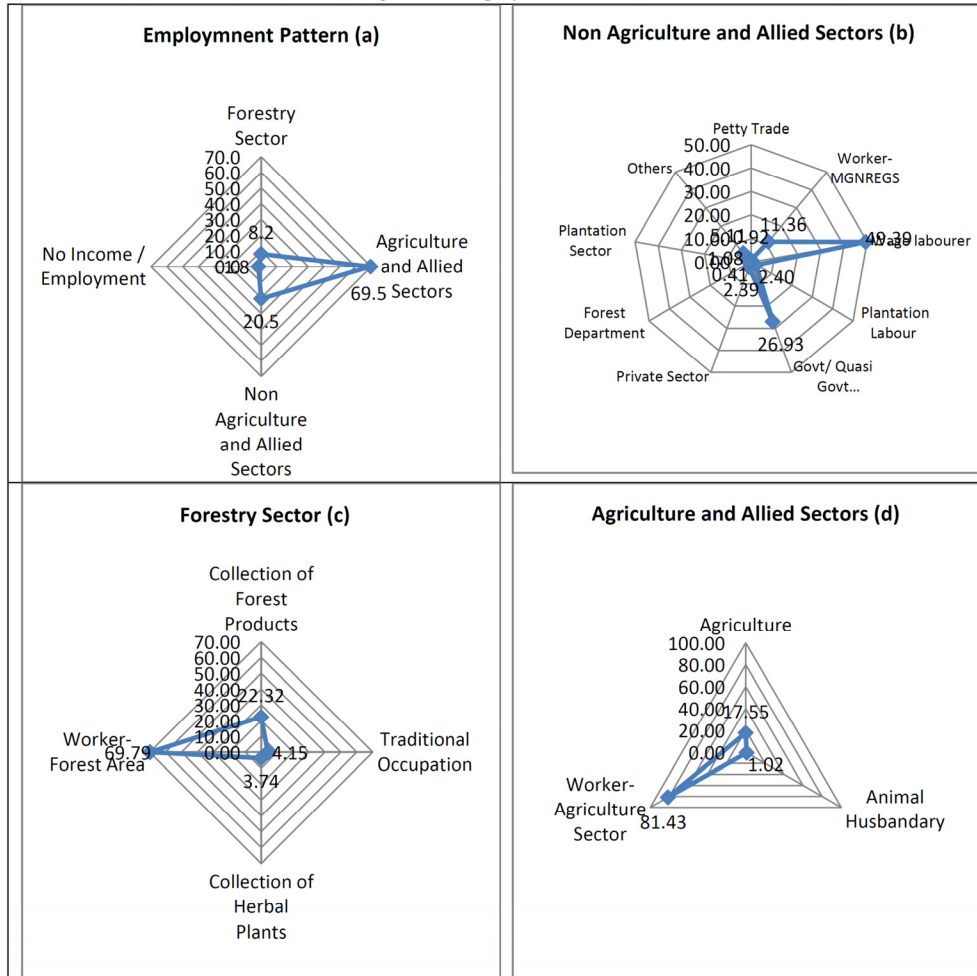
Hence, their earning is low and it is difficult for them to have a decent living. This has to be linked also to the low wage and exploitation happening in the tribal hubs of Kerala.

Table 2.1 : Employment Pattern

SL. No	Sector of Employment	Families	Persons
1	Forestry Sector	8814	17138
	(1) Collection of Forest Products	1967	4261
	(2) Traditional Occupation	366	1287
	(3) Collection of Herbal Plants	330	651
	(4) Worker-Forest Area	6151	10939
	Sub Total	8814	17138
2	Agriculture and Allied Sectors	75060	144264
	(1) Agriculture	13174	28514
	(2) Animal Husbandry	764	4114
	(3) Worker- Agriculture Sector	61122	111636
	Sub Total	75060	144264
3	Non Agriculture and Allied Sectors	22181	45666
	(1) Petty Trade	205	340
	(2) Worker- MGNREGS	2520	11752
	(3) Worker- Non Agriculture Sector	10956	19794
	(4) Plantation Labour	533	1321
	(5) Govt./ Quasi Govt. Employment	5973	8966
	(6) Permanent Worker In Private Sector	530	1759
	(7) Permanent Worker in Forest Area	90	189
	(8) Permanent Worker in Plantation Sector	240	755
	(9) Others	1134	790
	Sub Total	22181	45666
	No Income / Employment	1910	177910
	Grand Total	107965	384978

Source: STDD data

Source: STDD data



Source: STDD data

Figure 2.1 : Employment Pattern

2.2 Educational Profile

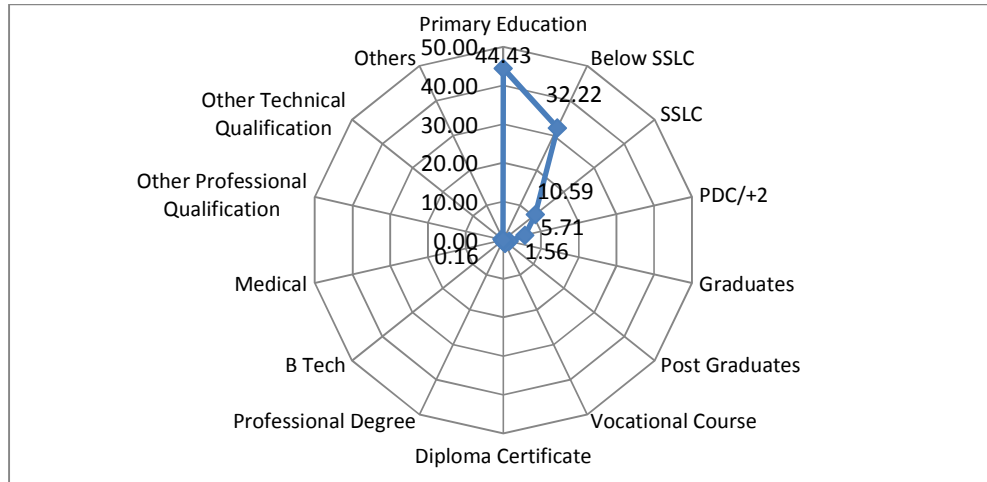
One of the root causes of the vicious-nexus of underdevelopment and exclusion is clearly identifiable once it evaluates the educational profile of the ST communities in Kerala. The development of Kerala in terms of the educational attributes has been boasted by several studies and Kerala economy is often cited

as important in the knowledge-based era or even dynamic in the self-financing higher education system, the harsh reality is that the STs are still outliers based on their educational attainment and they face educational exclusion both in the regional and community levels. An evaluation of educational attainment of the tribes evinces the pathetic condition of the tribes. Table 2.2 and Figure 2.2 clearly show the situation as half of the tribes have an education below the primary level. Graduates are very less at 1.56 percent. Lack of professional and technical expertise excludes and deprives them from the private and government sector jobs requiring enhanced skills. These forces are complimentary and work as underpinning actors in preventing them from any vertical movement in the labour market keeping them in the vicious circle of low education and high poverty inter-generationally (Rajasenan, Bijith and Rajeev, 2015).

Table 2.2 : Education Level

No.	Course	Persons	Percentage (%)
1	Primary Education	127344	44.43
2	Below SSLC	92349	32.22
3	SSLC	30342	10.59
4	PDC/+2	16374	5.71
5	Graduates	4475	1.56
6	Post Graduates	822	0.29
7	Vocational Course	2775	0.97
8	Diploma Certificate	911	0.32
10	B Tech	95	0.03
11	Medical	65	0.02
12	Other Professional Qualification	468	0.16
13	Other Technical Qualification	1296	0.45
14	Others	328	0.11

Source: STDD data



Source: STDD data

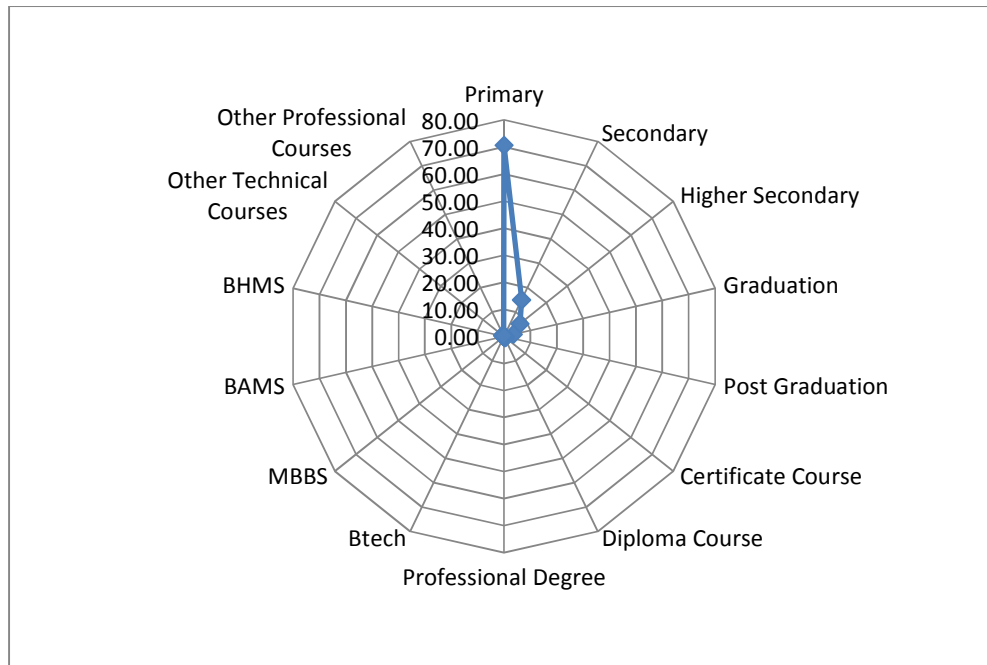
Figure 2.2 : Level of Education

Ironically tribal education is one sub sector in which majority of the TSP allocation is spent. While the spending or allocation of funds in bettering the educational profile of the tribes is a step in the right direction and is a laudable one as education tethers intrinsic as well as instrumental value in uplifting the downtrodden tribes, it is a harsh reality that even at the student level majority as per the data are at the primary level (70 percent) and enrolment of students in graduation, post-graduation and technical/professional education sector is miniscule. Table 2.3 and Figure 2.3 show the detailed results.

Table 2.3 : Profile of the students

No.	Courses	Number of Student	Percent
1	Primary	64216	70.64
2	Secondary	13552	14.91
3	Higher Secondary	6805	7.49
4	Graduation	3198	3.52
5	Post Graduation	268	0.29
6	Certificate Course	629	0.69
7	Diploma Course	517	0.57
8	B Tech	234	0.26
9	MBBS	60	0.07
10	BAMS	19	0.02
11	BHMS	8	0.01
12	Other Technical Courses	440	0.48
13	Other Professional Courses	702	0.77
14	Others	254	0.28
	Total	90902	100.00

Source: STDD data



Source: STDD data

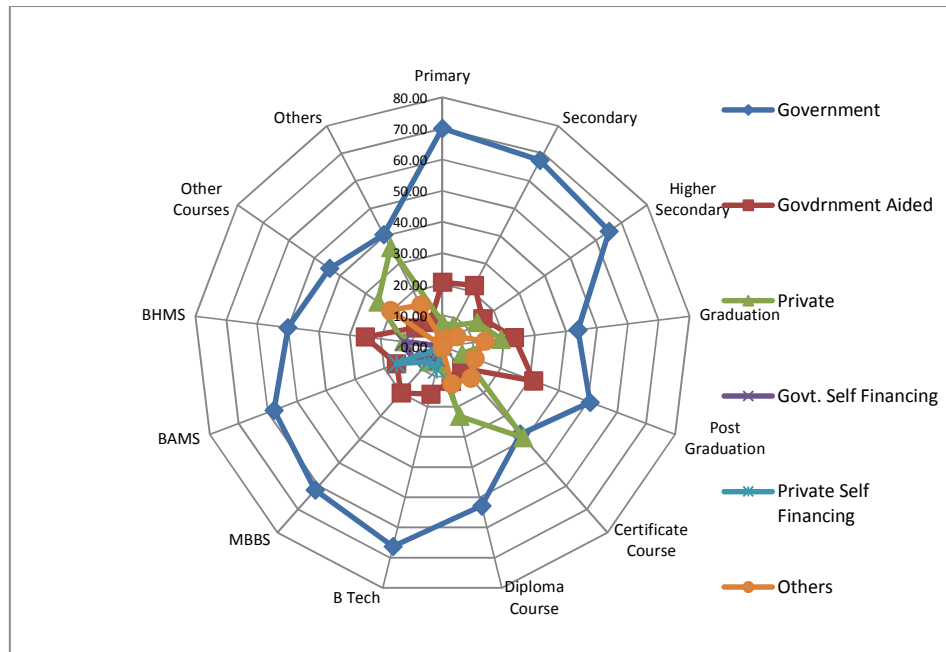
Figure 2.3 : Students Profile

Another issue is with the fact that majority of the tribal students rely on government institutions. This is irrespective of the course they study. The main reason is the reluctance or non-interest of the private institutions to start a course in tribal predominant areas due to the opportunity costs. But this is not the be all and end all of the system, but some courses like the certificate and technical courses are also available in these areas (Table 2.4 and Figure 2.4).

Table 2.4 : Institution wise enrolment of students

	Govt.	Government Aided	Private	Govt. Self Financing	Private Self Financing	Others
Primary	70.04	20.58	7.58	0.00	0.00	1.80
Secondary	67.49	22.14	7.57	0.00	0.00	2.80
Higher Secondary	65.14	15.71	13.56	0.00	0.00	5.58
Graduation	43.84	23.33	19.04	0.00	0.00	13.79
Post Graduation	50.75	31.34	6.72	0.00	0.00	11.19
Certificate Course	37.68	9.38	39.27	0.00	0.00	13.67
Diploma Course	52.80	11.61	23.21	0.00	0.00	12.38
B Tech	66.24	15.81	5.13	4.70	7.69	0.43
MBBS	61.67	20.00	6.67	5.00	6.67	0.00
BAMS	57.89	15.79	0.00	10.53	15.79	0.00
BHMS	50.00	25.00	12.50	12.50	0.00	0.00
Other Courses	44.05	10.51	25.13	0.00	0.00	20.32
Others	40.55	8.66	35.83	0.00	0.00	14.96

Source: STDD data



Source: STDD data

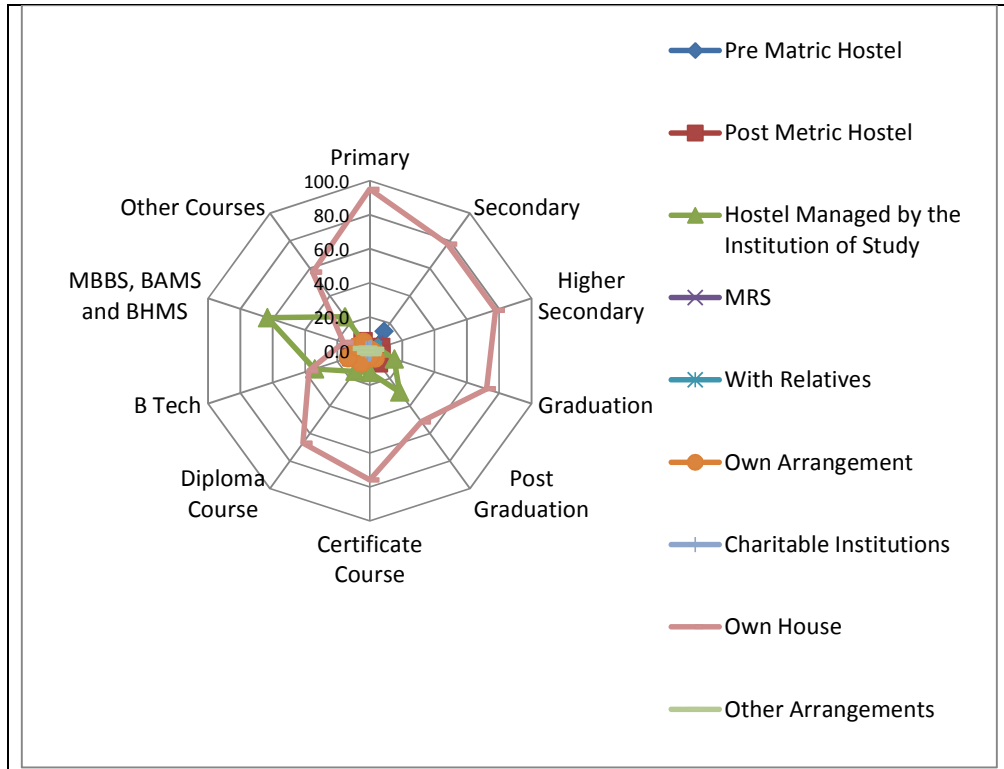
Figure 2.4 : Institutions in which tribal students are studying

In order to obtain an upward mobility of the tribes in a socio-economic angle, it is imperative to evaluate the TSP allocation in terms of welfare perspective of the students. A detailed scrutiny of the TSP allocation in the educational sector of the tribes throws light to the fact that majority of the funds are used for the Model Residential Schools (MRS) and Ashram Schools. Despite this laudable effort, a pertinent question is whether the tribes are getting this facility and those who have this facility are availing the same. While at the higher levels and professional courses like MBBS, BAMS and BHMS as well as some post graduate courses at the universities have such facilities, students either make their own arrangements. This is practically impossible to most of the tribal students. The TSP allocation shows that it is very meager as 95 percent of students in Primary, 77.7 percent in Secondary 77.6 percent in higher secondary and 72 percent in graduation are day scholars. In this respect the allocation ends up with stipend only. Table 2.5 and Figure 2.6 show the results of the living arrangement.

Table 2.5 : Living arrangement of students

	Pre Matric Hostel	Post Metric Hostel	Hostel Managed by the Institution of Study	MRS	With Relatives	Own Arrangement	Charitable Institutions	Own House	Other Arrangements
Primary	0.0	0.0	0.0	1.8	1.9	0.1	1.1	95.0	0.3
Secondary	14.2	0.0	0.0	4.7	1.5	0.2	1.3	77.7	0.4
Higher Secondary	1.3	6.7	5.1	2.9	2.0	0.7	0.6	77.6	3.1
Graduation	0.0	6.9	15.1	0.4	1.7	1.8	0.5	72.0	1.6
Post Graduation	0.0	8.6	29.9	0.7	2.2	5.2	0.0	51.5	1.9
Certificate Course	0.0	3.3	12.7	0.0	1.7	3.5	1.3	75.8	1.6
Diploma Course	0.0	4.6	14.9	0.4	2.3	8.7	1.2	66.9	1.0
B Tech	0.0	11.1	34.2	0.0	1.3	13.2	0.4	37.6	2.1
MBBS, BAMS and BHMS	0.0	5.7	63.2	0.0	0.0	8.0	2.3	16.1	4.6
Other Courses	0.0	6.9	24.8	0.0	1.7	6.4	1.0	57.2	1.9

Source: STDD, data



Source: STDD data

Figure 2.5 : Living arrangement of students

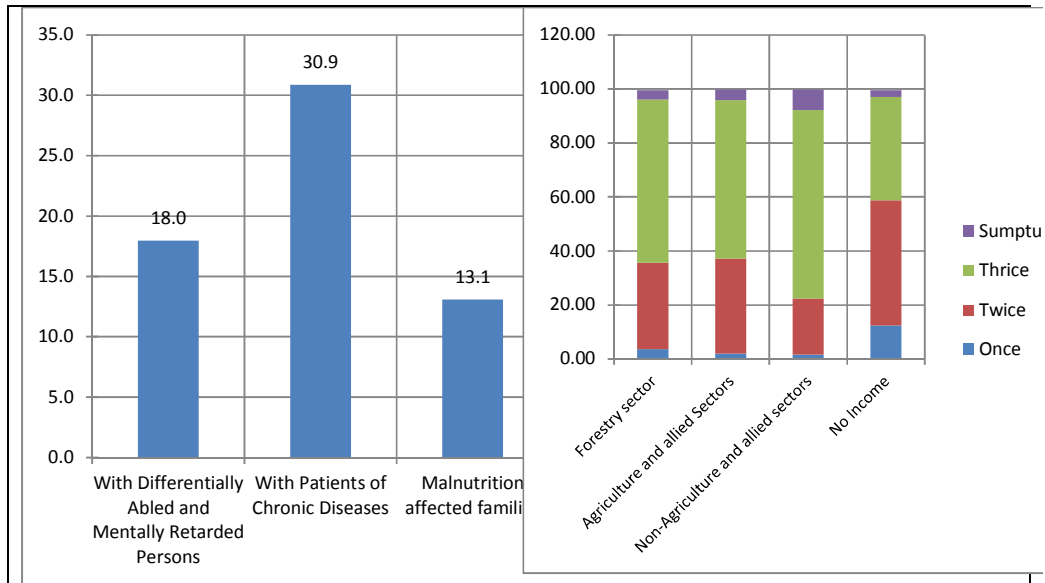
2.3 Health and Food Consumption

Two of the inter-connected components which are dubiously evaluated in the present context of the tribes are health and food consumption. Compared to the statistical central tendency of the health indicators, the tribal morbidity and mortality levels are poles apart. Poverty induced diseases and genetically connected ailments (like sickle cell) are a common features. Adding to this are the lifestyle diseases. High degree of malnutrition linked maternal and infant mortality have been identified by the UNICEF (2013) and Eqbal (2013) committee. As per the Tribal Development Report (2013), 30.9 percent of the ST families have chronic diseases, 18 percent are differently abled or mentally retarded and 13 percent are affected by malnutrition (Table 2.6 and Figure 2.6).

Table 2.6 : Health and food consumption

Sl.No.	District	Total Families	With Differentially Abled and Mentally	Percent to Total Families	With Patients of Chronic Diseases	Percent to Total Families	Malnutrition Affected Families	Percent to Total Families
1	Thiruvananthapuram	5183	876	16.9	1276	24.62	231	4.46
2	Kollam	1303	236	18.11	627	48.12	49	3.76
3	Pathanamthitta	1791	383	21.38	913	50.98	387	21.61
4	Alappuzha	872	127	14.56	389	44.61	170	19.5
5	Kottayam	4353	815	18.72	1649	37.88	114	2.62
6	Idukki	14315	2771	19.36	4688	32.75	2002	13.99
7	Ernakulam	2370	542	22.87	980	41.35	79	3.33
8	Thrissur	1481	355	23.97	464	31.33	146	9.86
9	Palakkad	13223	2100	15.88	3941	29.8	2204	16.67
10	Malappuram	3656	1022	27.95	1148	31.4	742	20.30
11	Kozhikode	2680	714	26.64	889	33.17	414	15.45
12	Wayanad	36135	5433	15.04	10217	28.27	5773	15.98
13	Kannur	9005	1956	21.72	2301	25.55	994	11.04
14	Kasargod	11598	2056	17.73	3854	33.23	829	7.15
Total		107965	19386	17.96	33336	30.88	14134	13.09

Source: STDD data



Source: STDD data

Figure 2.6 : Health and food consumption

Sector-wise food consumption data shows non-agricultural and allied services the tribes are in better position in comparison to the no income category as depicted in Figure 2.6. But the number of tribes as mentioned earlier is very less in number. Frequency of food consumption has a well-knit positive correlation with income.

2.4 Land

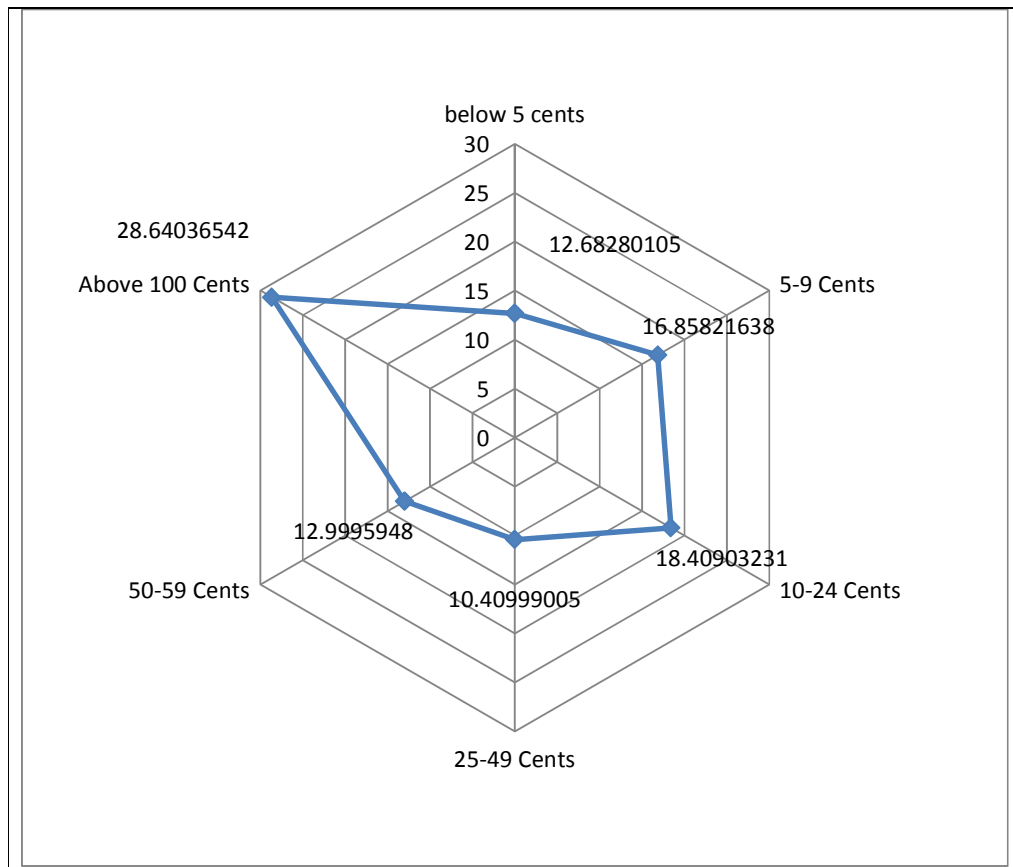
For a social group or community mainly dependent on the agricultural sector for livelihood, it is imperative to have adequate land holding or possession to carry out farming. Land and land holding of the tribes have always been a controversial issue and there is paucity of concrete database on the landholding pattern and land issues of the tribes. Different agencies have different data regarding the same. As per the Local Government Department data (2013), 5158 out of 107965 tribal families are landless, which is 4.78 percent. However, the NSSO data (61st Round) has identified 14.3 percent of the tribes as landless.

Another issue is that the data on tribal land shows only possession details a totally avoids ownership. The possession right would mean that the tribes have only cultivation or usage rights and not ownership entitlements. The tribes also do not have any transaction rights nor they can approach a bank or financial institution for agricultural loan or for purchase of tools. The situation is so acute in that the condition of landless tribal households is also pathetic. Nearly 71 percent of the tribes have only possession rights of land up to 100 cents. It is important to consider here is that among the 1137 families that have the possession title lost 145923 cents of land of which 133554 cents are dry land and 12369 cents are wet land. The data on tribal land possession is depicted well through Table 2.7 and Figure 2.7.

Table 2.7 : Possession of Land

Sl.No.	District	Number of Families						Total
		Below 5 Cents	5-9 Cents	10-24 Cents	25-49 Cents	50-99 Cents	Above 100 Cents	
1	Thiruvananthapuram	18	61	162	144	221	437	1043
2	Kollam	59	44	50	42	99	64	358
3	Pathanamthitta	65	33	37	31	34	36	236
4	Alappuzha	380	161	105	40			686
5	Kottayam	272	228	372	212	296	761	2141
6	Idukki	91	161	316	271	451	1442	2732
7	Ernakulam	412	167	103	29	18	60	789
8	Thrissur	91	103	102	56	36	17	405
9	Palakkad	1114	543	260	121	313	2600	4951
10	Malappuram	168	109	118	65	63	234	757
11	Kozhikode	102	205	482	292	256	332	1669
12	Wayanad	3301	5050	4362	2334	2824	4607	22478
13	Kannur	309	651	1103	809	978	3150	7000
14	Kasargod	504	1637	2423	1206	1469	1810	9049
	Total	6886	9153	9995	5652	7058	15550	54294

Source: STDD data



Source: Worked out from Table 2.7

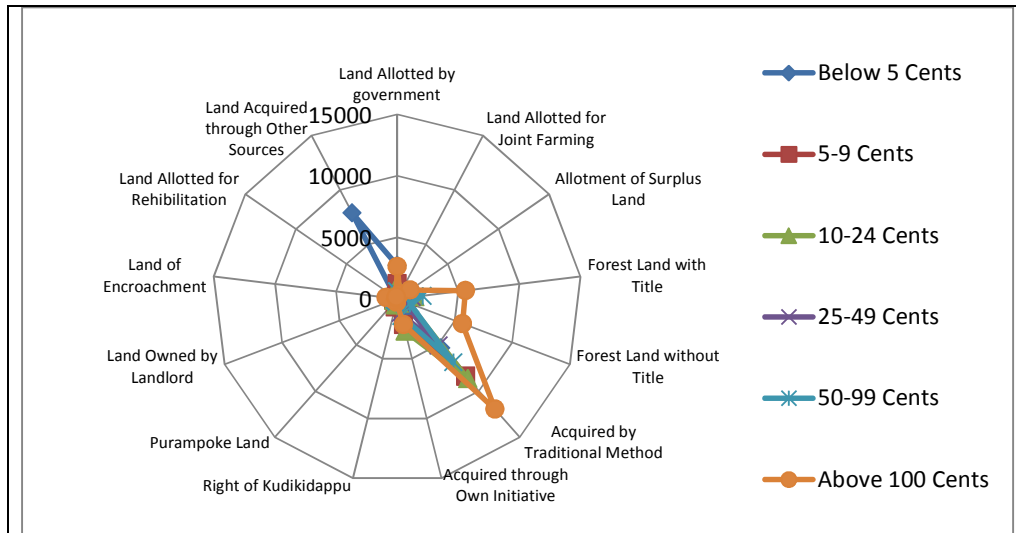
Figure 2.7 : Possession of Land

Despite the land legislations to distribute a minimum of 5 acres of land to the tribes, the changing governments have not been keen to implement this in favour of the STs in Kerala. This is clearly evident from the source-wise land acquired by the tribal households in Kerala shown in Table 2.8 and Figure 2.8. The traditional inheritance still continues to be a major mode of acquiring land for the tribes. Government's attempts to allot land under the aegis of rehabilitation, joint farming, and surplus land allotment schemes have however remained ineffective.

Table 2.8 : Source wise extent of land acquired by families

		Below 5 Cents	5-9 Cents	10-24 Cents	25-49 Cents	50-99 Cents	Above 100 Cents	Total
1	Land allotted by government	2720	1233	1088	619	607	2633	8900
2	Land allotted for joint farming	48	46	42	45	48	469	698
3	Allotment of surplus land	407	296	606	460	604	1279	3652
4	Forest land with title	471	848	1434	1206	2076	5590	11625
5	Forest land without title	469	759	964	637	1107	5675	9611
6	Acquired by traditional method	5340	8396	8667	5059	6879	11971	46312
7	Acquired through own initiative	1267	2138	2702	1191	1439	2133	10870
8	Right of KudiKidappu	752	672	514	145	201	273	2557
9	Purampoke land	331	208	166	76	69	135	985
10	Land owned by landlord	485	298	295	129	202	298	1707
11	Land of encroachment	38	47	164	94	235	921	1499
12	Land allotted for rehabilitation	105	61	31	16	51	112	376
13	Land acquired through other sources	7887	189	133	74	66	179	8501
	Total	20320	15191	16806	9724	13584	31668	107293

Source: STDD data



Source: STDD data

Figure 2.8 : Source wise extent of land acquired by families

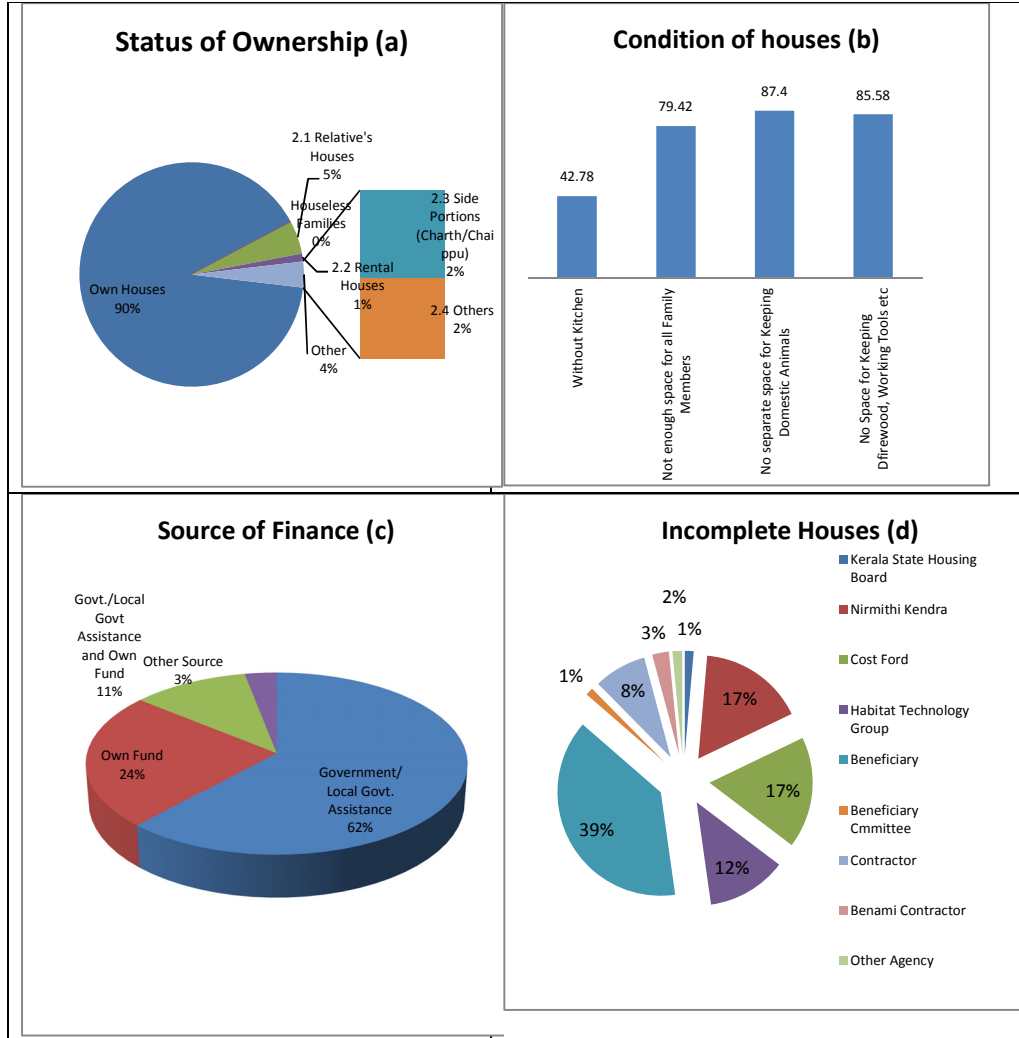
2.5 Condition of House

Irrespective of the fact that there is an array of housing scheme under the aegis of TSP, the housing condition of the STs is still pathetic and deplorable (CSSEIP, 2015; Rajasenan, 2016) and this in fact has transformed in the form of low standard of living over generations (Rajasenan, Bijith and Rajeev, 2015). Ironically the housing comes second in the allocation list of the TSP. The TSP fund allocation in this respect is implemented by the Rural Development Department, the Local Self-government Department and the Tribal Development Department. Even the houses constructed with the aid of TSP funding are also in a very poor shape. Near to 80 percent of the houses do not have adequate space to accommodate all the members of the household. There seemed to be a mismatch in giving government assistance and technical support to build a good livable house. The implementation ineffectiveness of the government mechanism leads to half-fulfilled promises in the housing schemes as many of the houses constructed under these schemes remain incomplete. A detailed evaluation of the status of tribal houses is shown in Table 2.9 and Figure 2.9.

Table 2.9 : Status of Houses

	Status of Ownership	Number	Percent
1	Own Houses	97591	90.4
2	Relative's Houses	5090	4.71
3	Rental Houses	1236	1.14
4	Side Portions (Charth/Chaippu)	2117	1.96
	Others	1931	1.79
	Total	107965	9.6
	Facilities in House	Number	Percent
1	Without Kitchen	41750	42.78
2	No Space for the Stay of all Family Members	48226	79.42
3	No Space for Keeping Domestic Animals	85300	87.4
4	No Space for Keeping Firewood, Working Tools etc	83520	85.58
	Total owned houses	97591	
	Source of Finance	Number	Percent
1	Government/Local Govt. Assistance	60244	61.73
2	Own Fund	23605	24.19
3	Govt./Local Govt Assistance and Own Fund	10804	11.07
4	Other Source	2938	3.01
	Total	97591	100.00
	Status of incomplete houses	Number	Percent
1	Kerala State Housing Board	192	1.4
2	Nirmithi Kendra	2284	16.5
3	Cost Ford	2414	17.4
4	Habitat Technology Group	1727	12.5
5	Beneficiary	5345	38.6
6	Beneficiary Committee	173	1.2
7	Contractor	1140	8.2
8	Benami Contractor	360	2.6
9	Other Agency	215	1.6
	Total	13850	100

Source: STDD data



Source: STDD data

Figure 2.9 : The Status of Houses

2.6 Participation of STs in Development Programmes

Here, an attempt to evaluate the participation of STs in difference development schemes is done. When the self-sufficient tribal food economy was collapsed, they have no other means than the availability of basic food grains allotted through the public distribution system. This endows them with the basic provisions but they had to change their traditional food habits, which in a way is distressingly endangering their nutritional security. The traditional food grains which they require are unavailable in most of the times from the ration shops.

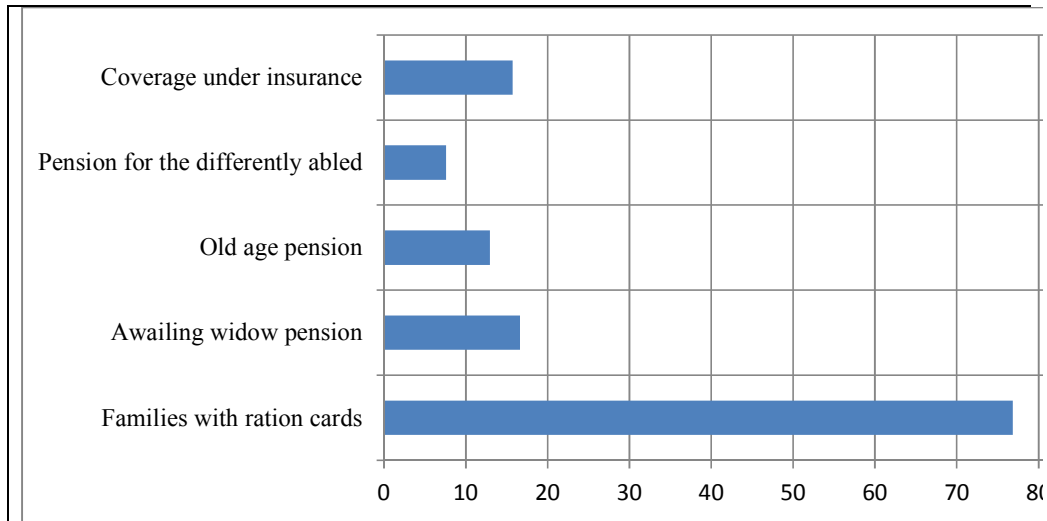
To ensure the food and nutritional security of the scheduled tribes, the government has come up with several programmes like community kitchen, food and nutrition programme for the school going children and special package for the primitive tribal communities. The sad reality lies in the fact that these programmes have not been effective in providing the tribes with food and nutritional security. The tribal households with ration card are only 76.85 which is evident from the data illustrated in Table 2.10 and Figure 2.10. This is more pertinent in that the majority of tribal families now a days depend on ration shops for their food requirements. Yet another issue identified is pledging their ration cards with unorganized money lenders for meeting emergency financial requirements. This is seemed to be a common phenomenon in the tribal areas, as 2503 families who hold the ration cards but they do not possess it.

Table 2.10 : Participation in social security schemes

	Schemes	Total	Percent
1	Families with ration cards	107965	76.85
2	Availing widow pension	55392	16.64
3	Old age pension	4526	12.95
4	Pension for the differently abled	718	7.6
5	Coverage under insurance	90977	15.73
	Total families	107965	Percent
1	Destitutes	2948	2.73
2	Beneficiaries under Asraya	1377	46.71
3	Beneficiaries eligible for Package	1940	65.81
4	Beneficiaries of Destitute Package	956	32.43
	Total settlements	4762	Percent
1	Settlements having Kudumbasree Ayalkootams	2928	61.49
2	Ayalkootams having thrift schemes	2810	59.01
3	Ayalkootams Provide loan to members	2629	55.21
4	Loan assistance given to units of Ayalkotams	1869	39.25

Source: STDD data

To identify the beneficiaries under different schemes, the LSG's BPL survey is considered as the yardstick (based on 9 criteria) by the Local Self Government and the Scheduled Tribe Development Department. Accordingly, of the 107965 families enumerated, 55392 families (51.31) come below the poverty line. The survey shows that there are 21561 tribal widows in Kerala, out of which only 3587 (16.64) are getting the widow pension. In the case of old age pension and pension scheme for the differently-abled only 12.95 percent and 7.86 percent respectively are receiving benefits. Coverage under insurance in the case of the tribes is also very low with 15.73 percent. All these exemplify the fact that even the social security pension schemes which had to be worked like a 'first aid kit' for the vulnerable tribal communities are also in helpless situation.

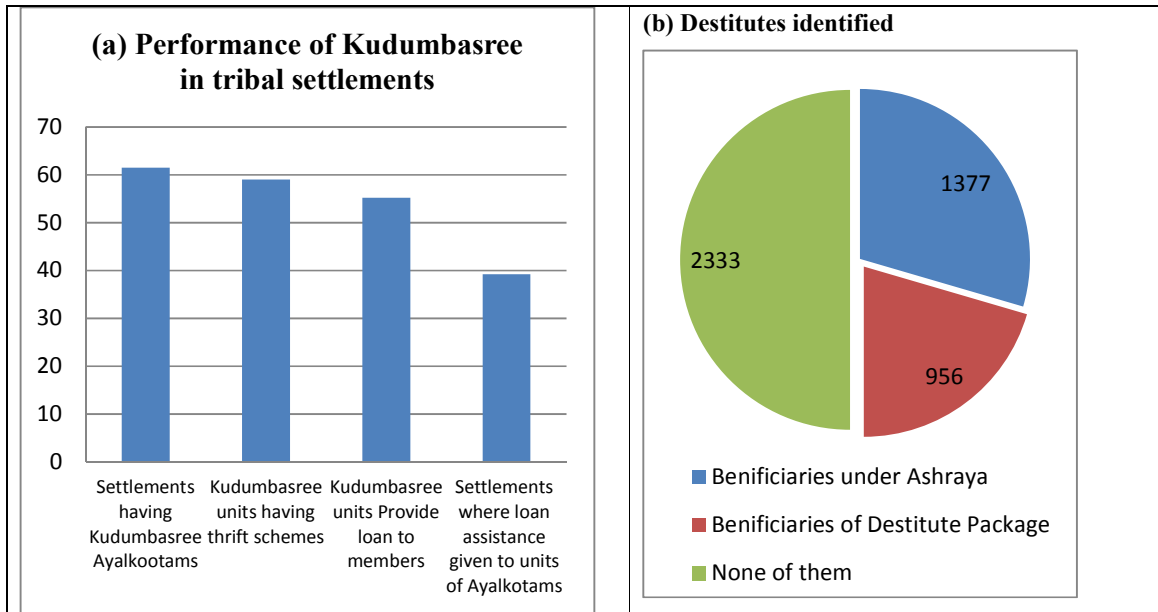


Source: STDD data

Figure 2.10 : Participation in social security schemes

2.6.1 Kudumbasree

Kudumbashree mission has been pivotal in the Kerala economy in ensuring women empowerment and financial inclusion among the poor and the marginalized in the rural as well as urban regions. The results show that 61.49 percent of the tribal settlements are affiliated to the Kudumbashree and similar percent of the beneficiaries have been maintaining regular thrift in the groups. It is seen that 55.21 percent of the settlements that are engaged in the *Kudumbasree Ayalkootam* providing loan to its members, while only 39.25 percent of the settlements whose Kudumbasree members have received loan assistance from Kudumbasree mission [Table 2.10 and Figure 2.11 (a)].



Worked out from Table 2.10

Figure 2.11 : Performance of Kudumbasree in tribal settlements

Poverty eradication is yet another objective of Kudumbashree mission which is a prominent issue in the tribal hubs of Kerala. Rehabilitation of destitute is done by the mission with the aid of Ashraya scheme. 2 percent of the bottom poor are identified and they are given comprehensive support like health, education, food, etc. Out of the 2948 (2.7 percent of the total population) destitute identified from among tribes in Kerala, 46.7 percent (1377) of the beneficiaries are coming under the *Ashraya* Scheme. Though 1940 are eligible for the scheme only 956 (49 percent) are getting the benefits as per Figure 2.11 (b).

2.6.2 MGNREGS

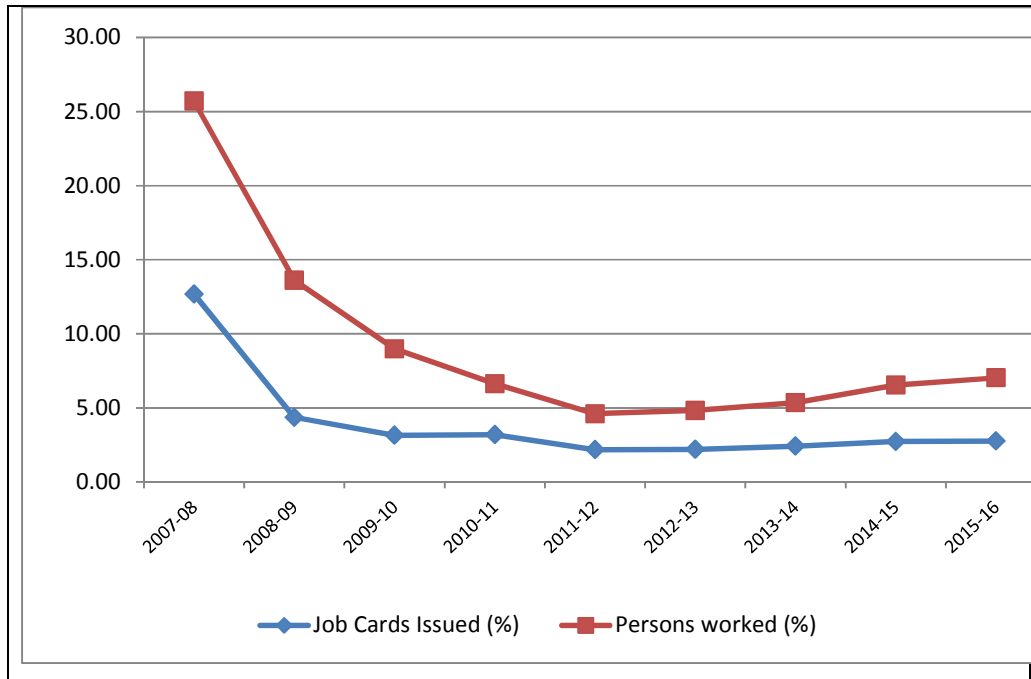
The MGNREGS, which is yet another programme has been popular among the tribes as per the data. Until 2014-15 this scheme had provided 140.5 lakh man-days of work which shows that on an average it created 17.5 lakh work days per year. A temporal evaluation of the MGNREGS data of the tribes shows

an upward trend with some decline only in the recent period. The major reasons for decline are wage and seasonal issues. Table 2.11 and Figure 2.12 are a detailed illustration of the temporal performance of the MGNREGS among the tribal hubs of Kerala.

Table 2.11: Performance of tribes in MGNREGA

Year	Job cards issued		Persons worked	
	Number	Percent	Number (in Lakhs)	Percent
2006-07	19211	8.98		
2007-08	60749	12.68	10.26	13.03
2008-09	82703	4.36	12.23	9.26
2009-10	91438	3.15	18.11	5.83
2010-11	93122	3.19	14.89	3.44
2011-12	40777	2.17	15.36	2.43
2012-13	55861	2.20	22	2.63
2013-14	68232	2.42	25.41	2.93
2014-15	82324	2.73	22.42	3.81
2015-16	84787	2.76	8.95	4.26

Source: Calculated from the data given in www.nrega.nic.in/



Source: Worked out from Table 2.11

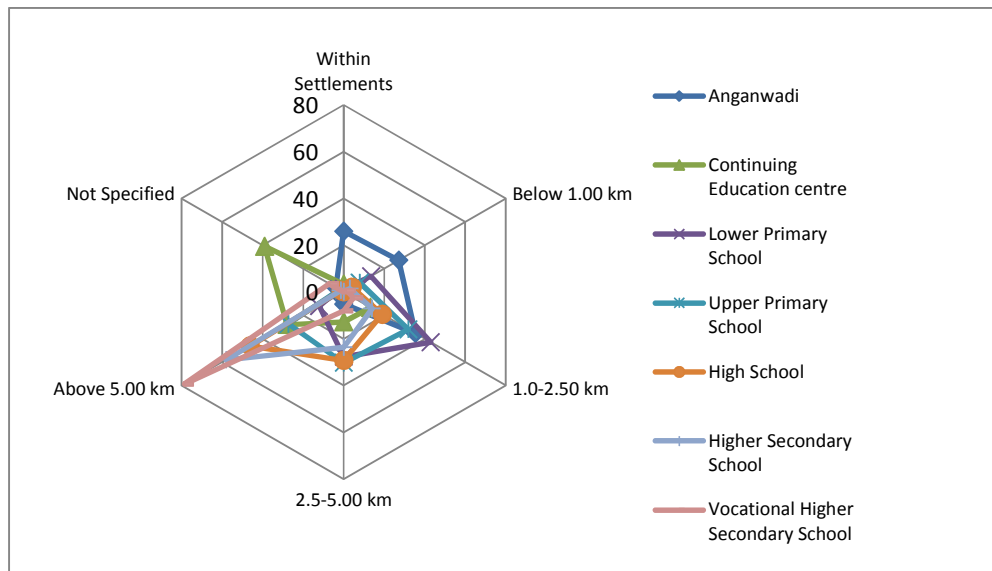
Figure : 2.12 Performance of tribes in MGNREGA

2.7 Access to Facilities

The socio-economic progress of any society is largely determined by the physical as well as the social access. An assessment of access to facilities is more important especially while evaluating the condition of the tribes in terms of segregation and its impacts. This is all the more important while evaluating and developing the future policy actions to overcome the basic hurdles of development. The tribes often reside in the dense forest completely isolated from the mainstream as well as the facilities required for their inclusion process.

2.7.1 Access to Educational Facilities

This include access to all the institutions ranging from anganwadis to vocations higher secondary schools. Only 25 percent of the settlements have anganwadis in their close vicinity. This is despite the area stipulation of 1 kms radius for the anganwadis. 35 percent of the anganwadis are within a distance of 2.5 kms. Only 14 percent of the LP and 10 percent of the UP schools are within 1 kms of the hamlet. Access to the high schools, higher secondary schools and vocational higher secondary schools is difficult as these institutions are located beyond the 5 km radius of the ST hamlets. This makes it difficult for the STs to access the educational institutions. Table 2.12 Figure 2.13 shows the results of the same.



Source: STDD data

Figure 2.13 : Access to educational institutions

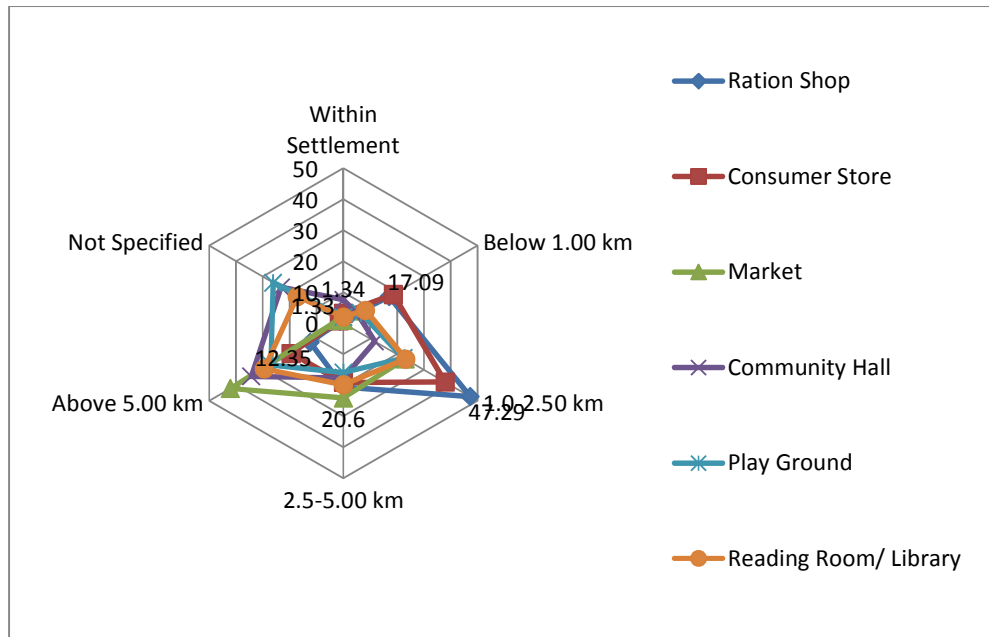
2.7.2 Access to Basic Services

Access to other basic services like ration shop, consumer store, market, community hall, playground and reading room is also unavailable within their close vicinity. Even the ration shops, and consumer stores are available on an average of 1 to 2.5 km from their settlements (Table 2.13 and Figure 2.14).

Table 2.13 : Access to Institutions of Basic Services – Kerala

Institutions of Basic Services	Within Settlement	Below 1.00 km	1.0-2.50 km	km	Above 5.00 km	Not Specified	Total
1	2	3	4	5	6	7	8
Health Sub Centre	61	352	1427	1268	1451	203	4762
Private Clinic Doctor	13	102	720	1193	2672	62	4762
Medical Store	11	158	806	1230	2464	93	4762
Ration Shop	64	814	2252	981	588	63	4762
Consumer Store	156	887	1806	909	929	75	4762
Market	46	376	1096	1148	2004	92	4762
Community Hall	359	262	558	840	1636	1107	4762
Play Ground	96	311	1068	757	1285	1245	4762
Reading Room/ Library	96	394	1105	946	1402	819	4762
Collection Centre of Non Timber Forest Produces	55	46	138	173	1973	2377	4762

Source: STDD data



Source: STDD data

Figure 2.14 Access to basic services

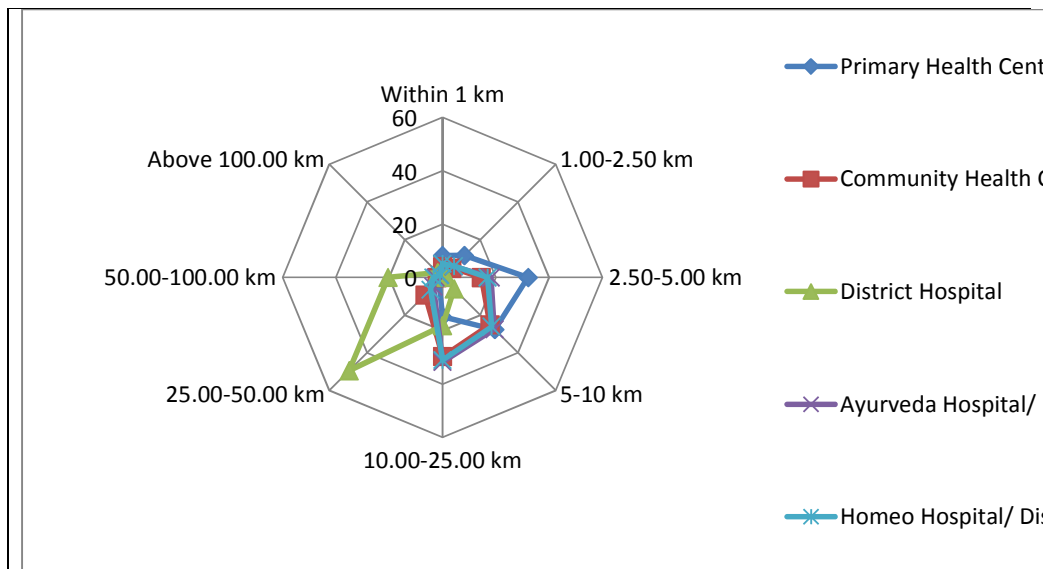
2.7.3 Access to Medical Facilities

Kerala's access to medical facility is well acclaimed, but in the case of the tribal hubs the situation is appallingly low. But by considering their settlements in the highly excluded terrains that creates more havoc in accessing the healthcare facilities, which in turn results in high mortality and morbidity rates. District hospitals in most of the cases are available within a range of 25-50 kms from the hamlet (Table 2.14 and Figure 2.15). The situation is worse in the Attappady and Agali tribal belts of Palakkad.

Table 2.14 : Access to Health Institutions – Kerala

Primary Health Centres	Number of Settlements									
	Within 1 km	1-2.50 km	2.50-5 km	5-10.00 km	10-25 km	25-50 km	50-100 km	Above 100 km	Not Specified	Total
Primary Health Centres	389	554	1531	1320	702	97	19	1	149	4762
Community Health Centre	191	237	695	1198	1411	441	95	5	489	4762
District Hospital	18	24	77	293	862	2356	970	123	39	4762
Ayurveda Hospital/Dispensary	243	280	866	1312	1508	229	122	67	135	4762
Homeo Hospital/Dispensary	245	289	805	1242	1474	303	162	61	181	4762

Source: STDD data



Source: STDD data

Figure 2.15 Access to Healthcare Institutions

The basic amenities available in the tribal areas as per Chapter 2 in most of the areas are very poor. This is the reason for their exclusion and poverty. As an inclusive agenda immediate attention is required. It is clear that availability of land and land use pattern in the recent period are very low and this is the major problem for their poverty and unemployment. In the area of housing the tribes face the greatest trouble, as most of the houses are not in the livable condition. The availability of health facilities in the tribal areas in comparison to the other areas of Kerala is pathetic and because of this the health ailments of the tribes are very high in comparison. The major problem of the tribal locality is inaccessibility to most of the basic facilities and for obtaining these they have to travel around 5-6 kilometers. Data as given in Chapter 2, therefore endorses lack of facilities and access of most of the basic indicators, which in turn is the reason for the backwardness of the tribes in Kerala.

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Chapter 3

LAND ALIENATION AND RESIDENTIAL SEGREGATION AMONG THE SCHEDULED TRIBES OF KERALA.

Basic indicators data in Chapter 2 gives the vulnerability of the tribes. But the problem of land alienation and housing segregation are the two areas which need special assessment in order to evaluate the exclusion-inclusion agenda of the tribes. Of these two, land alienation makes the tribes in a vulnerable position, but residential segregation leads further momentum to this vulnerability and this is manifesting in segregation and social exclusion. Again, with the help of different sources of secondary data Chapter 3 tries to evaluate the ramification of these two issues to the tribes and their impending catastrophe. Land, as an asset, has enormous implications on the life of the Scheduled tribes in Kerala. Their livelihood is attached to the gifts of nature, land and forest. Chapter 3 is divided into two parts. The first part of Chapter 3 is an enquiry into the nature, extent, historical implications, land struggles and the administrative mechanisms that are implemented to negate the effects of land alienation on the well-being of the tribes. The second part deals with the concept of residential segregation and its various implications on the basic infrastructure facilities in the tribal settlements.

3.1 Nature and extent of Land alienation

Alienation, as a concept, was used by Hegel (1820) and later by Marx (1844) to describe the sociological process. But this concept can be read in relation to the tribal rights as 'land alienation'. 'Depeasantization of the tribes' is

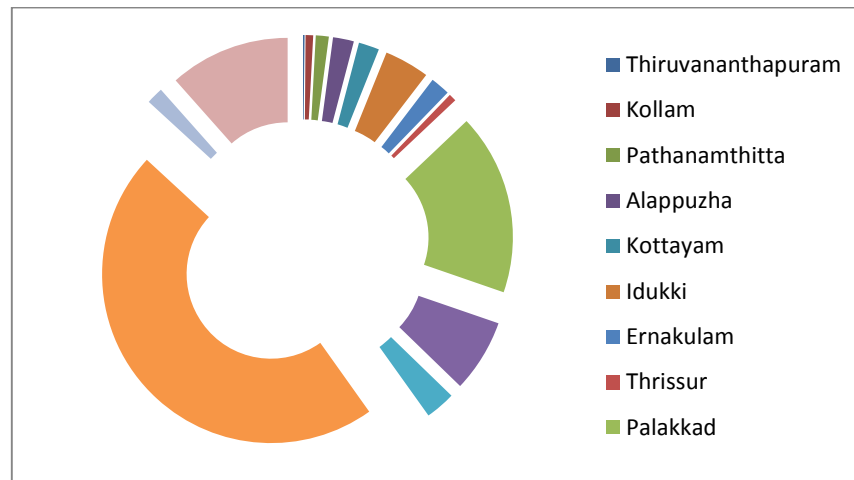
regarded as the central theme of land alienation. It involves involuntary adherence to external process of exploitation. Since land is the only source of livelihood for the tribes, land alienation resulted in the erosion of 'right to life' of the tribes.

The nature of land alienation in Kerala can be traced back to historical context. The British colonial society, using different land revenue settlements, converted tribes from cultivators to labourers. The inability to pay land revenue forced the tribes to sell off their lands to the upper caste landlords. Another historical factor was the influx of settlers to the tribal dominated areas. The modern way of life of the settlers influenced the tribal people which they tried to imbibe. This modernisation process pushed the tribes to indebtedness and thus into a poverty trap. In order to sustain their income and livelihood, the tribes gave off their lands for meagre income and retreated to the interior forest areas. This segregated life accentuated the poverty of the tribal population. Another major factor that contributed to the problem of land alienation was the use of fraudulent land records by the settlers in order to have a claim on the land they inhabited. Displacement due to the implementation of large-scale development projects also contributed to the process of land alienation. Since the tribal areas were rich in mineral and natural resources, most of the infrastructure projects were implemented in the tribal regions which forced large scale displacement of the tribal population. As per the 2014 data from the tribal department, Wayanad, Palakkad and Kasaragod districts accounts for the highest number of land less families in our State. (Table 3.1 and Figure 3.1). The least is in Thiruvananthapuram district.

Table 3.1 : Landless Tribal Families in Kerala- 2014

Districts	No. of Families
Thiruvananthapuram	16
Kollam	76
Pathanamthitta	128
Alappuzha	212
Kottayam	206
Idukki	453
Ernakulam	194
Thrissur	74
Palakkad	1826
Malappuram	733
Kozhikode	301
Wayanad	4913
Kannur	170
Kasargod	1215
Total	10517

Source: Scheduled Tribe Development Department.



Source: Scheduled Tribe Development Department.

Figure 3.1 : Landless Tribal Families in Kerala- 2014

The outcome of the land alienation in the tribal belts of Kerala is the disintegration of the tribal units due to the lack of self-sufficiency. The major jolt in this regard is with the loss of livelihood which has resulted in intensifying exclusion and deprivation in socio-economic and cultural fronts. The result has been protests and struggles among the tribes aimed at regaining their lost land by acquiring ownership rights. There have been several legislations and legal battles for land restoration of the STs. Despite this, the tribes are still in a poor and pathetic situation. The data on alienated land under disputes during 1996 is shown in Table 3.2. The inaction from the government is evident from the low land recovery statistics (merely 108803 cents). Around 1797112 cents of land, which has been categorized as 'land under dispute', are yet to be recovered.

Table 3.2 : Alienated Land (Acres) under disputes as on 30.6.1996

Regional Divisional Offices (RDO)	District	No. of Applicants	Extent of Land under dispute	No. of Cases Disputed/ Settled	Land Restored	Remaining number of cases	Remaining land under dispute	Per-capita area under dispute
Mananthavady	Wayanad	2253	3792.6	17	8.69	2236	3783.91	1.69
Idukki	Idukki	1495	2000	0	0	1495	2000	1.34
Ottapalam	Palakkad	2522	10000	126	393.36	2396	9606.64	4.01
Palakkad	Palakkad	101	166	2	0	99	166	1.68
Kottayam	Kottayam	482	402.58	0	0	482	402.58	0.84
Thiruvalla	Kottayam	334	933.5	17	90	317	843.5	2.66
Trivandrum	Trivandrum	437	589.74	132	96.16	305	493.58	1.62
Kasrgode	Kasargode	131	323.97	6	28.91	125	295.06	2.36
Perunthalmanna	Malappuram	120	178	95	135.39	25	43.3	1.79
Kannur	Kannur	115	483.54	72	126.99	43	92.15	2.14
Kollam	Kollam	218	248.45	154	147	64	101.45	1.59
Others		254	204.12	130	61.7	124	142.95	1.15
Total		8462	19322.5	751	1088.03	7711	17971.12	2.33

Source: Extracted from KDR, 2008

In 2012-13, 2526.6 acres of land was distributed to 997 tribal families in the Wayanad district, whereas a mere 114.68 acres was distributed to 113 families during 2013-14 as given in Table 3.3. However, the reality is that those who have been allotted title deeds do not have any idea about the location of their land. This shows that the resettlement package of the government has not yet reached the envisaged level. Hence, the tribes' right to possession of land still remains a reverie.

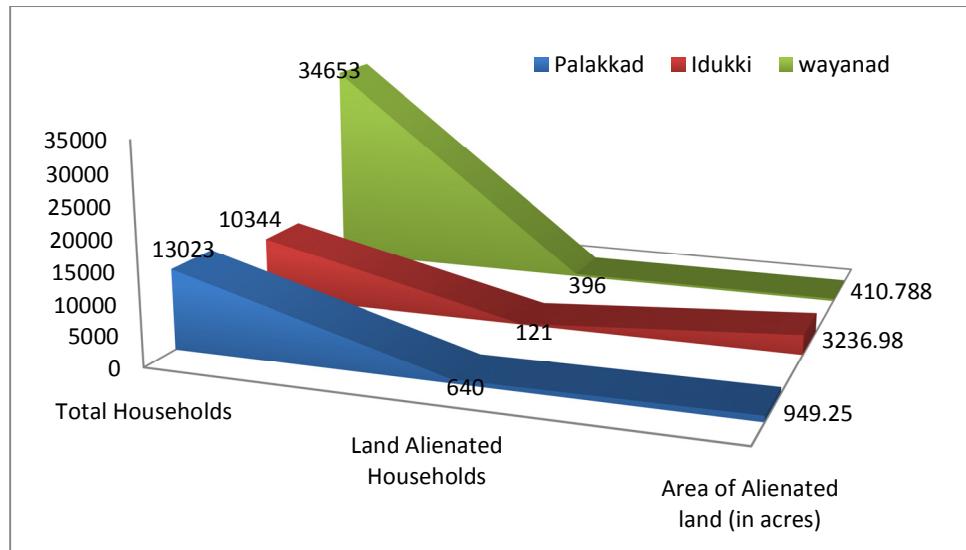
Table 3.3 District wise details of land distribution (ST)

SI No	District	2012-13		2013-14	
		Families(no.s)	Extent(acre)	Families(no.s)	Extent(acre)
1	Kollam	128	114.68	3	0.69
2	Idukki	949	1460	2	1.728
3	Ernakulam	296	418.9	-	-
4	Palakkad	10	4.44	4	1.84
5	Wayanad	997	2526.6	113	114.68

Source: STDD data

3.1.1 Land alienation in Wayanad, Idukki and Palakkad

Wayanad, Palakkad and Idukki districts are the principal tribal hubs of Kerala. The nature and dimension of land alienation patterns vary in these districts. Family-wise land alienation is severe in Palakkad while area-wise land alienation is rampant in Idukki as shown in Figure 3.2. There are specific reasons for this kind of inter-spatial differences. Tea and spice plantation groups were found responsible for the high level of land alienation in Idukki. On the other hand, non-tribal migration in search of land for agriculture activities and plantation purposes were cited as the prime reason for land alienation in Wayanad.



Source: Worked out from STDD data

Figure 3.2 : Tribal land Alienation in Wayanad, Idukki and Palakkad

3.1.2 Land Ownership Pattern

Possession of land is imperative not only as a source of livelihood but also for their permanent settlement. Land alienation seriously disrupts the pattern of settlement since the tribes are forced to move from one settlement to another. This has a deteriorating effect on the socio-economic characteristics of the tribes. 10731 tribal households together possess 1764964 cents of land with ownership documents, of which 740954 cents are in use for various purposes. 1137 tribal households have lost 145923 cents of land. Details of these are given in Tables 3.4 and 3.5. There are several reasons for tribal land alienation. These include encroachments made by big windmill companies, resorts and farm developers. The situation is further worsened by the Wildlife Protection Act 1972, the Forest Conservation Act 1980 and the National Forest Policy 1988.

Table 3.4 : Households possessing land with ownership document

Land ownership	No. of Houses	Area, Type and Use of Land				Total (cent)	
		Land (cent)		Agricultural Land (cent)			
		Total	in use	Total	in use	Total	in use
Haven't received Ownership Document	4221	856622	366817	53544	21421	910166	388238
Living within the vicinities of wildlife sanctuaries	213	8810	5552	2500	2500	11310	8052
Shift within forest areas	60	7241	1298	1115	1115	8356	2413
Encroached Forest area	2383	296362	136202	9055	8585	305417	144787
Living in <i>Purambock</i>	1202	77458	32692	3349	928	80807	33620
Holding surplus land	1760	351855	104236	16462	6581	368317	110817
Living in encroached revenue land	892	76546	52432	4045	595	80591	53027
Total	10731	1674894	699229	90070	41725	1764964	740954

Source: STDD data

Table 3.5 : Households Possessing ownership document but land alienated

Land	Households	Area, Type and Usage of Land				Total (cent)	
		kara (cent)		nilam(cent)			
		Total	in use	Total	in use	Total	in use
<10 cents	139	1200	1200	100	55	1300	1255
10-49 cents	162	4860	4800	333	195	5193	4995
50-100 cents	107	8560	7751	1247	1085	9807	8836
>100 cents	729	118934	42164	10689	2580	129623	44744
Total	1137	133554	55915	12369	3915	145923	59830

Source: STDD data

As per the recent statistics of Revenue Department, Wayanad and Palakkad are the districts reported to have the maximum number of live landless

cases (Table 3.6). Evaluating these data together, one could clearly understand the intensity of the issues of land alienation in the tribal hubs in general and scheduled tribes in particular. This needs to be linked to the poverty and other related issues of the STs.

Further, Palakkad district stands prominent in terms of cases of land alienation and landless situations. This clearly point towards the lack of government intervention in the district to resolve this problem of paramount concern to the tribes.

Table 3.6 : Landless cases reported in the Districts.

No. of cases upto 40 acres	No. of completely land less cases	No. of cases to be compensated and approx extent in acres	No. of cases to be resumed and extent in acres	Live cases after village level verification	District
24	5	31/22.2	Nil	34	TVM
Nil	Nil	Nil	1/0.10	10	KLM
22	Nil	40/34.16	Nil	44	PTA
NA	NA	NA	NA	NA	ALP
132	Nil	274/393.32	0/0	274	KTM
89	Nil	236/381.235	222/369.675	236	IDK
NA	NA	NA	NA	NA	EKM
10	Nil	0	0	15	TSR
432	89	1880/3704.16	207/382.73	1005	PKD
16	13	16/74.73	1/4.94	29	MPM
NA	NA	NA	NA	NA	KKD
0	0	1563/2388.939	11/35.33	1563	WND
NA	NA	NA	NA	NA	KNR
Nil	Nil	Nil	Nil	Nil	KSRGD
725	107	4040/6998.744	442/792.775	3210	Total

Source: Revenue Department, Government of Kerala (2014)

3.1.3 Land legislations

Tribal land alienation in Kerala has a very long and complex history. It is a potpourri of unfulfilled promises and incessant deceit faced by the tribal population from the side of the political parties in the fight for their right to live. The first dent in the self-sustained, traditional, peasant-agrarian economy of the tribes was afflicted during the colonial rule. Here, the tribes employed as workers in plantations were ruthlessly exploited. Another blow came in the form of a new scheme which led to the mass migration of non-tribes in the 1950s. This scheme was introduced by the Madras government with the object of modernizing agricultural activities by linking the tribes with the migrants and encouraging them to work together. The tribes responded to this joint venture by leasing out their lands to the migrants for cultivation. Subsequent formation of the state of Kerala and the enactment of the progressive Kerala Agrarian Relations Bill 1957 (passed on 15, October 1960) turned to be a bolt from the blue to the tribes. The migrants took advantage of the Kerala tenancy laws and embezzled the land of the tribes. With increasing marginalization and transformation of the tribes from owners of land to bonded labourers, their agony remained unabated. The Kerala Reforms (Amendment) Act of 1969 further conferred tenancy status on the migrant farmers, legalizing their intrusion. A remarkable contradiction in the implementation of the act was that land ceiling became applicable only to the tribes. Plantations remained outside the domain of the Act. This paved the way towards large scale land alienation (9859 acres) during 1966-76 alone. 92 percent of the total alienated land was transferred to the migrants through lease, mortgage or sale (GoK, 1979).

3.1.3.1 Legal Framework

Land, being a matter specified in the State list, legislations are directly formulated and implemented by the State Government. A substantial change in

agrarian relations in Kerala was witnessed after the implementation of ‘The Kerala Land Reforms Act, 1963(Act 1 of 1964)’. This Act is also included in the Ninth Schedule (Article 31B) of the Constitution of India in order to keep the Act outside the purview of judicial interventions. The Act was amended several times and is also in the process of new amendments. The land reforms put an end to the ‘Janmi-kudiyar’ system. It also provided for ceilings on land and the surplus land was allotted to the landless poor people. But this Act failed in many fronts. It resulted in small fragmented landholdings which indirectly lowered agriculture productivity. Due to the low profit, most of the lands were kept fallow. This resulted in large scale migration to non-agricultural sectors. One of the main critiques associated with the Act is the exemption granted to plantation and private forests. This exemption converted large agricultural lands to plantations.

The Kerala Land Assignment Rules, 1964

According to the provisions of this Act, government lands will be identified and the surplus land will be assigned to the landless people. The land is provided for an individual, a family, for agriculture purposes or for building of houses. The land is assigned to a person whose annual income is less than Rs 75,000. The Act provides for 25 percent reservation to the SC/ST and no value will be collected from them for the land granted.

The Kerala Prevention of Eviction Act, 1966 (Act 12 OF 1966)

The Act provided for the prevention of eviction of cultivating tenants, holders of Kudiyiruppus and Kudikidappukars from their holdings, Kudiyiruppus or Kudikidappus, It also provided for restoration of certain cases of possession. Any cultivating tenant or holder of a kudiyiruppu or kudikidappukaran, who is a member of any Scheduled Caste or Scheduled Tribe and who has been, evicted from his holding, kudiyiruppu or kudikidappu, on or after the 1st April, 1964,

shall be entitled to restoration of possession of his holding, kudiyruppu or kudikidappu.

The Kanam Tenancy Abolition Act, 1976 (Act 16 of 1976)

The Law states that “the jenmi shall not have the right to receive payment of jenmikaram and the kanam tenant shall have no liability to pay any jenmikaram to the jenmi, and the right to receive payment of and the liability to pay, jenmikaram shall stand extinguished.”

1. **Kerala Arable Forest Land Assignment Rules 1970:-** States that land assigned is inheritable but not alienable for a period of five years from the date of assignment. One third of the available land in each district should be allotted to the members of SC and ST.
2. **Kerala Land Assignment Rules 1964:-** Provides that members of SC can transfer their land to both SC and ST but ST can transfer only to SC with the prior permission of concerned authority. 25 percent of land available for assignment is allotted to SCs and STs.
3. **Requisitioning and Acquisition of Property(Amendment) Act 1962:-**The Central Government shall release from requisition,- (a) any property requisitioned or deemed to be requisitioned under this Act before the commencement of the Requisitioning ,and Acquisition of immovable Property (Amendment) Act, 1970, on or before the expiry of a period of three years from such commencement; any property requisitioned/under this Act after such commencement, on or before the expiry of a period of three years from the date on which possession of such property was surrendered or delivered to, or taken by, the competent authority under section 4.

4. **Kerala Land Reforms(Amendment) Act, 1969:-** Where by act of parties or by operation of law, the interest of the tenant in his holding has been severed before the commencement of the Kerala Land Reforms(Amendment) Act, 1969,splitting up the holding into two or more parts, or where a portion of the holding has been sub-leased, before the commencement of this Act, each such part or, as the case may be, each of the portions retained by the tenant and sub-leased, shall be deemed to be separate holdings. Any land in respect of which a person is deemed to be a tenant under section 4, section4A, section 5, Section 6, Section 6A, Section 6 B, Section 7A, Section 7B, Section 7C, Section 7D, Section 8, Section 9 or Section 10 or presumed to be tenant under section 11 shall be holding for the purpose of this act.

5. **Kerala Land Development Act, 1964 (Act No. 17 of 1964):-** An act to unify and amend the law relating to the preparation and execution of Land Development Schemes including Schemes for the conservation and development of soil resources, the control and prevention of soil erosion and the reclamation of waste lands in the State of Kerala. This Act repeals the Travancore-Cochin Land Development Act, 1950 and the Madras Land Improvement Schemes (Contour Bounding and Contour Trenching Schemes) Act, 1949 as in force in the Malabar District.

6. This Act provides for the establishment of the Land Development Board and defines its composition and functions, which include directing the District Committees for the preparation of draft schemes and approving them, to advise Government on the strategies to be followed for land and water conservation as well as eco-restoration, etc. The Act also establishes District Committees, a Padasekharam Committee, and a Watershed committee. The Act sets out procedures for the preparation, and contents of, Land

Development Schemes which shall provide for: control and prevention of soil erosion; preservation and improvement of soil; reclamation of waste, saline or water-lodged areas; improvement in the methods of cultivation and extension of cultivation; regulation or prohibition of cutting down or destroying of trees and other growths; setting on fire of trees, timber, forest produce or other wild growths; planting or growing of trees, shrubs or grasses for the purpose of afforesting uncultivable land or for providing shelter belts against wind or sand or for any other purpose; control and maintenance of tree growth and improvement of water supply. The Act further provides for: powers of executing officers to enforce the scheme; liability of persons whose lands are not included in the scheme; obligation of land owners to maintain and repair works; power of the District Committee to regulate, restrict, or prohibit certain matters within the notified area; inquiries into claims and award of compensation etc.

7. **The Kannan Devan Hills (Resumption of Lands) Act, 1971:** - An Act to provide for the resumption of lands other than Plantations in the Kannan Devan Hills village in the Devikulam taluk of the Kottayam district and for the distribution of such lands for cultivation and purposes ancillary thereto. Notwithstanding anything contained in any other law for the time being in force, or in any contract or other document, but subject to the provisions of sub-sections (2) and (3), with effect on and from the appointed day, the possession of all lands situate in the Kannan Devan Hills village in the Devikulam taluk of the Kottayam district shall stand transferred to and vest in the Government free from all encumbrances, and the right, title and interest of the lessees and all other persons, including rights of mortgagees and holders of encumbrances, in respect of such lands, shall stand extinguished.

8. **The Kerala Land Conservancy (Amendment) Act, 1971:-** An Act to amend the Kerala Land Conservancy Act, 1957. The act in which, the ownership and possession, or the possession, of any land are or is vested in the Government under section 86 or section 87 of the Kerala Land Reforms Act, 1963 (1 of 1964), such land shall, so long as it is in the possession of the Government, be the property of Government within the meaning of this section. And also Lands belonging to the Government of any other State in India or to the Kerala State Electricity Board or to a University established by law or to a corporation owned or controlled by the Government of Kerala or to a municipal corporation shall be deemed to be the property of Government within the meaning of this section.

9. **The Kerala State Commission For The Scheduled Castes And The Scheduled Tribes Act, 2007:-** An Act to constitute a Commission for the Scheduled Castes and the Scheduled Tribes in the State of Kerala land to provide for matters connected therewith or incidental thereto. The Commission shall consist of the following members, namely:- (a) a Chairperson, from among the Scheduled Castes-Scheduled Tribes ,who has special knowledge in matters relating to the Scheduled Castes and the Scheduled Tribes, to be nominated by the Government; (b) two members who have special knowledge in matters relating to the Scheduled Castes and the Scheduled Tribes, to be nominated by the Government; and (c) the Secretary to Government of the Scheduled Castes and Scheduled Tribes Development Department of the Government, ex-officio, who shall be Member Secretary of the Commission. The commission has to examine the working of various safeguards provided in the Constitution of India or under any other law for the time being in force or under any order of the Government for the welfare and protection of the Scheduled Castes and the Scheduled Tribes of Kerala.

10. **The Kerala Land Conservancy (Amendment) Bill, 2009:-** It is an amendment to Kerala Land Conservancy Act of 1971. The act pinpoints whoever with the intention of using or holding any land which is the property of Government, whether *purambokke* or not, for any non-governmental purpose, unlawfully enters or occupies such land shall be punishable with imprisonment of either description for a term which shall not be less than three years but which may extend to five years and shall also be liable to pay a fine which shall not be less than fifty thousand rupees, but which may extend to two lakhs rupees. Provided that a person who is occupying any Government land not exceeding 5 cents as on the date of commencement of this Act and is not having any other land in his name or in the name of his family members and is having any of the following documents in order to prove that he was residing therein, namely, record of rights or a ration card or an electoral identity card issued in the address of such Government land which he is so occupying or a proceeding assigning house number to a building in such property or an electric connection or a water connection, issued by the competent authorities of the Government or the Local Self Government Institutions or the respective statutory bodies, as the case may be, shall not be considered as an unlawful occupant for the purpose of imposing punishment.

11. **The Kerala Land Relinquishment (Amendment) Act, 1963:-** It is an act to amend the Kerala Land Relinquishment Act, 1958. Relinquishment means in the case of any land in the possession of a registered holder the unconditional surrender by the registered holder of all his rights over the land, and, in the case of any land in the possession of a cultivating tenant and the intermediaries, if any, of all their rights over the land. Where any land is in possession of a cultivating tenant, the registered holder, the

cultivating tenants and the intermediaries, if any, of such land may jointly relinquish the same or any portion thereof in favour of the government, provided that such land or portion of land is free of encumbrances.

12. **The Kerala Scheduled Tribes (Restriction of Transfer of Lands and Restoration of Alienated Lands) Act, 1975.- Act 31 of 1975:** - The Act made all transfer of property on or after 1st of January 1960 as invalid. This Act was proposed to be implemented in all tribal dominated areas. But the spirit of this Act was challenged on various grounds by the land owning class. This Act did not serve its purpose.
13. **Provision of the Panchayats (Extension to the Scheduled areas) Act, 1996- PESA:-** The 73rd amendment to the Constitution recognised local self-governments as a constitutional body. The PESA Act intends to give autonomy to the tribal dominated areas that are included in the fifth schedule of the Constitution. The Act proposed to create a village that consists of hamlets of tribal communities so that the administration of their areas will be made according to their customs and traditions. This indigenous control over their resources will improve their livelihood and thus reduce poverty. But this Act has not been implemented in Kerala.
14. **The Scheduled Tribes and other Traditional Forest dwellers (Recognition of Forest Rights) Act, 2006:-** This Act grants legal rights to collect minor forest produce by the traditional forest dwelling communities. The tribal communities are given the right to protect and conserve the natural resources. This Act tries to help the communities to earn a living by improved access to the forest resources. If implemented properly, the PESA Act (1996) and Forest Rights Act (2006) would convert the tribal community into a new developed social class.

3.1.4 Land Struggles in Kerala

The revolt of Pazhassi in 1812 in which the Adivasis participated is regarded as the first revolt of tribes. The history of this struggle recognizes the contribution of Kurichiya community and their active involvement in this struggle. The first politically inclined tribal revolt under their leadership in India is the Santal rebellion (1855) in Chhotanagpur. The number of tribal land struggles between 1778 and 1947 amounted to 95 in India. The land struggles received an institutional framework with the formation of an organization named as 'Dalit Panthers'. The tribes were often characterized by different names such as the downtrodden, oppressed, marginalized, waste aggregators and so on signifying the social status of the excluded community.

Low prices for agricultural commodities, low production of food crops and new market rules accentuated the livelihood problems of tribes which in turn led the tribes to revolt for land. It was a revolt to sustain their socio-economic status. The land reforms helped the farmers but not the tribal community. The Kerala Scheduled Tribes (Restriction on Transfer of Lands and Restoration of Alienated Lands) Act, 1975 was implemented with the intention of restoration of tribal alienated lands. But the amendment brought in 1999 exempted the land holding up to two hectares from restoration which diluted the essence of the act of 1975. As per the fifth schedule of our Constitution, the majority tribal inhabited areas should be notified as tribal denominated areas. The PESA act of 1996 recommends self rule by the tribes in the notified tribal regions.

The fifth and sixth schedule of our Constitution empowers the tribal community for autonomous rule in the majority tribal populated regions. But in Wayanad (the largest tribal populated district in Kerala) inhabits fifty percent of landless tribal families which was cited as the major reason for the concentration

of land struggles in Wayanad. The support of many political parties intensified the land struggles and later got converted to an armed rebellion. The adivasi land struggles had no community differences such as Paniya, Muthuva, Irula etc but were united for a single uniform cause called 'Land'.

The major tribal struggles reported in the history of Kerala: -

(a) Muthanga outrage

The State government, in 2001, promised the tribal leaders that each of the tribal landless family will be allocated minimum one-acre cultivable land. But this promise was not kept. This instigated the tribes to occupy the forestland in Muthanga, Wayanad District under the leadership of Adivasi Gotra Maha Sabha (AGMS) in early January 2003. The tribes erected huts and started cultivation in the land occupied. After 45 days of occupation, the police brutally suppressed the protest and fired leading to the death of one tribal person. This cruelty invited the attention of humanity and which was clearly an eye opener to the Government to provide ears to the needs of the oppressed class.

(b) Chengara Land Struggle

On August 4, 2007 about 300 landless tribal and dalit families encroached upon the rubber estate owned by Harrison Malayalam Plantations at Chengara in Pathanamthitta district. The struggle in Chengara was led by the Sadhu Jana Vimochana Samyuktha Vedi (SJVSV). The demand of the oppressed class was five acres of land and Rs 50,000 each from the government. The failure of Kerala Land Reforms Act, 1964 led the Harrisons to continue the possession of land even though the lease expired in 2009. On 5 October 2009, an agreement was reached by the leadership of SJVSV with the government. It stipulated that 1,495 of the 1,738 families who occupied the estate land in Chengara would be given land elsewhere in the state and assistance for building a house. As per the agreement, 27

land-less adivasi families were to be given one acre of land and Rs 1.25 lakh each to build a house. Among the landless dalit families, 832 were to be given 75 cents of land and Rs 1 lakh each. Other 48 families were to be given 25 cents of land each, along with Rs 75,000 for building a house. The same benefit was to be given to 525 families who owned less than five cents of land. The government promised to implement the deal within 3 months. The land allotted to the tribes and dalit families was uninhabitable and uncultivable. The attack of wild animals forced them to leave the allotted land.

(c) Arippa Bhoosamaram

The Government of Kerala, in 2009, allotted 21.54 acres of the 90 acre Arippa Revenue Forest in Kulathupuzha village for the beneficiaries of the Chengara package. On December 31, 2012, about 1300 Adivasis, Dalits and landless poor encroached into the remaining land in Arippa forest. This struggle was led by Adivasi Dalit Munnetta Samiti. The main slogan they raised was “we do not want 3 cents of land; all we want is land for cultivation.” In this struggle, no settlement was reached between the protestors and the Government.

(d) Nilpusamaram (Stand Protest).

The tribals led by C.K.Janu started a novel protest, known by the name 'Nilpusamaram', in front of the Secretariat premises against the failed promises by the government. It was called off only after 162 days of protest, from July 9, 2014 to December 18, 2014. The Government decided to implement PESA Act at Aralam and Edamalakudy. It was also decided to allocate one acre of land to 447 families evicted from Muthanga and also to allocate 2.5 lakhs to the tribal families to construct houses.

3.1.5 Land Settlement and Redistribution

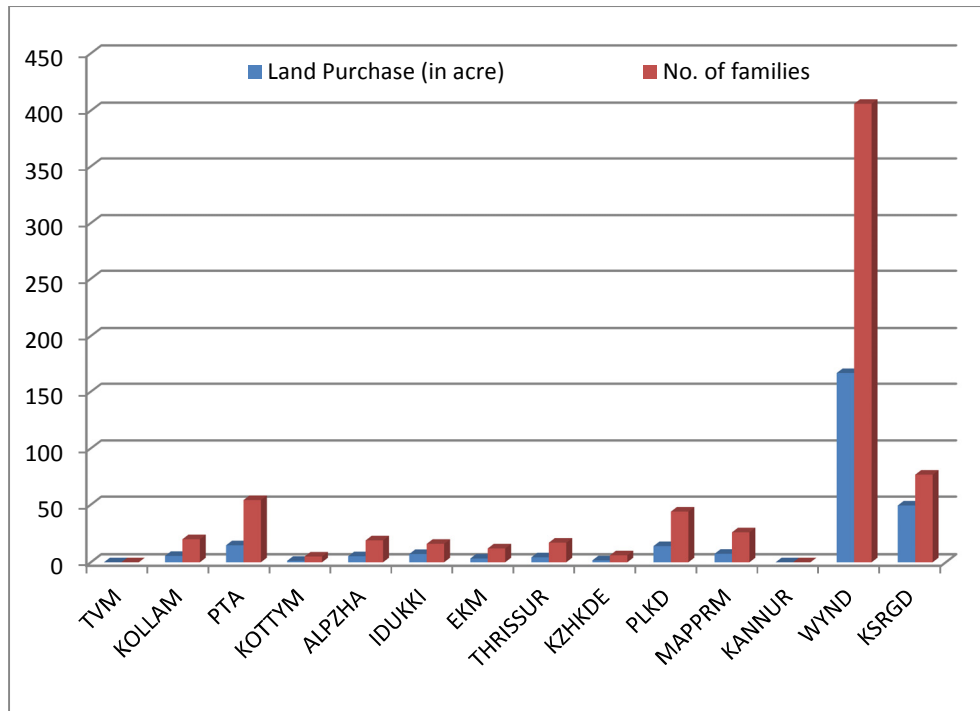
Even after incessant struggles, the demand for land is still a distant dream for the tribal people. The 1975 Act made all the land transactions after January 1st 1960 as invalid. But this Act was amended twice during 1996 and 1999. The amendment changed the date to January 1st 1985 to denote the invalid transactions. During the implementation of the 1975 Act, the number of applicants were 8000 tribal landless families. But after the amendments, the number declined to 4500. It clearly shows that the majority landless families are outside the purview of the Acts. The administrative machinery failed in identifying and allocating lands to the deprived and marginalised population.

The land distribution details from 2013-14 to 2016-17 shows that the only district which is highly benefitted is Wayanad District, the majority tribal populated district (Table no. 3.7). But the Idukki and Palakkad district does not figure much in the overall land distribution. The main problem cited in these districts is the non availability of fertile land. Earlier, the government had distributed unfertile land which led to widespread agitation. Thus the inadequacy of agricultural land is a major constraint before the government to satisfy the landless tribal population.

**Table 3.7 : District wise details of Land distribution for
the period 2013-14 to 2016-17 (up to 31.10.2016)**

District	Land Purchase (in acre)	2013-14 to 2016-17-17 (Rs in lakh)	
		No. of families	Amount
TVM	0	0	0
KOLLAM	5.52	20	196.95
PTA	14.74	54	510.83
KOTTYM	1.25	5	51.39
ALPZHA	5.203	19	187.63
IDUKKI	7.146	16	153.36
EKM	3.26	12	119.67
THRISSUR	4.3	17	174.77
KZHKDE	1.71	6	59.57
PLKD	14.047	44	385.74
MAPPRM	7.3525	26	241.02
KANNUR	0	0	0
WYND	166.5064	406	3021.18
KSRGD	49.28	76	705.06
Total	280.3149	701	5807.17

Source: Economic Review, 2016



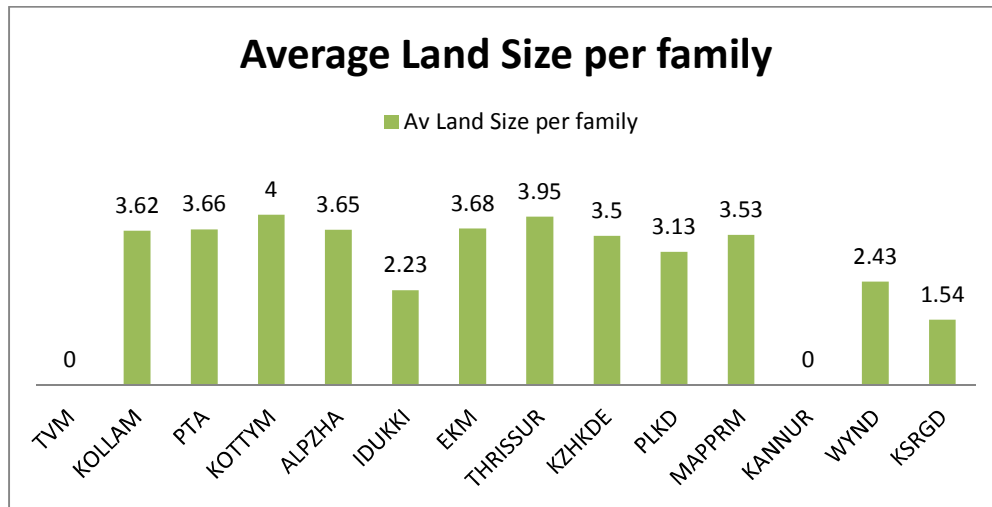
Source: Economic Review, 2016

Figure 3.3 : District wise details of Land distribution for the period 2013-14 to 2016-17

As per the data, in Wayanad District 406 families were allocated 166.5064 acres of land during 2013-14 to 2016-17. That is, each family received 2.4 acres on an average which is less than the actual demand for five acres. (Table 3.8 and Figure 3.4). Kottayam District tops with an average landholding size of 4 acres and lowest in Kasaragod district with 1.54 acres. It can be concluded that the size of land increases with the increased availability of fertile land in the districts.

Table 3.8 : Average Land size per Family

District	Avg. Land Size
TVM	0
KOLLAM	3.62
PTA	3.66
KOTTYM	4
ALPZHA	3.65
IDUKKI	2.23
EKM	3.68
THRISSUR	3.95
KZHKDE	3.5
PLKD	3.13
MAPPRM	3.53
KANNUR	0
WYND	2.43
KSRGD	1.54



Source: Computed from Economic Review 2016.

Figure 3.4 : Average Land size per Family.

3.2 Residential Segregation

3.2.1 Nature and Extent

The issue of residential segregation has grown into an extensive area of research under urban studies over the years. The initial attempts were concerned with studying the housing discrimination experienced by the Negroes in the US housing markets since World War I and its intensification with the urbanization and sub-urbanization of the cities during the 1960s and 80s. Since 1970s we can see an upsurge in the number of studies undertaken on the issue of residential segregation in the Afro-American ghettos and its consequences on the socio-economic lives of the people living in them (see, for example, Massey, Condran, and Denton, 1987; Massey and Denton, 1987; Ihlanfeldt and Sjoquist, 1989; Stoll, Holzer and Ihlanfeldt, 2000; Anas, 2004). Later on, the research was extended to include multi-ethnic groups and the prevalence of different forms of residential segregation among varied ethnic groups in countries like France, Africa and Latin America (see, for example, Gaschet and Le Gallo, 2005; Farley and Frey, 1996). People belonging to a particular social group often tend to cluster in homogenous neighbourhoods so as to retain and share common socio-cultural traditions or customs, community establishments and similar labour market experiences. Such clusters afford social groups with comfort, a sense of security, well-being, trust, and ease of social interaction, all of which combine to develop group identity in collective sense of place (Suttles, 1972; Clark, 1991 and 1992). According to Massey and Denton, 1988, A group that is highly centralised, spatially concentrated, unevenly distributed, tightly clustered and minimally exposed to majority members is said to be residentially segregated. Residential segregation includes five dimensions of measurement corresponding to different spatial variations such as evenness, exposure, concentration, centralization and clustering, each of which have different social and behavioural implications symbolizing different facets of segregation.

Although the residential segregation of groups possessing a shared specific social identity is a universal phenomenon; its pattern, scale, forms and extent varies over space and time. The reasons for such segregation could either be deliberate or voluntary based on the socio-economic, cultural and historical factors pertaining to the specific area. For instance, the major attribute that symbolize residential segregation in the US is ethnicity or colour while that in France is professional status (Massey and Denton, 1987; Taeuber, 1988; Gaschet and Le Gallo, 2005).

Ever since the publication of the pioneering work by Earnest Burgess (1928), the issue of residential segregation in the urban areas began to draw attention from social scientists around the world. Majority of the subsequent works dealt the issue of residential segregation, of the Afro-Americans and their ghettoisation in the North American cities and mainly focused either on mapping and measuring segregation scale or examining the forces responsible for or its effects experienced by the Anglo-American cities (Holloway, 2000). However, it is interesting to note that the residential segregation studies are largely confined to urban studies, and almost ignored the phenomenon of segregation on the countryside.

Each tribal hamlet has its own special characteristics. They share common identities in language, customs and traditions which signifies their isolation from the general population. They live in geographically segregated areas. People tend to live in areas where there is more access to the basic facilities. But the tribal hamlets lack in access to the very essential services as the hamlets are mostly situated in the interior forest areas. Such segregation often results in negative effects. The tribal 'Ooru' represents high rates of poverty combined with high rates of infant mortality. These settlements also represent large scale unemployment, high crime rates, less amenities and labour market discrimination.

3.2.2 Spatial segregation of tribal colonies

An interesting feature of the Scheduled Tribe population in Kerala is that they are geographically concentrated and are primarily located in rural areas. Wayanad district has the highest concentration of Scheduled Tribe population (37.36 percent) followed by Idukki (14 percent) and Palakkad (10.89 percent) (Economic Review, 2011). The Paniyans are the largest tribal community in Kerala (22.4 percent) followed by Kurichchan (8.9 percent) and Malai Arayan (8.8 percent). Together with the Paniyan, the Kurichchan, the Malai Arayan, the Kurumans, the Irular, the Muthuvan, the Kattunayakan, the Uraly and the Adiyar constitute around 75 percent of the tribal community in Kerala. Wayanad district inhabits 74.2 percent of the Paniyan population, 70.05 percent of the Kurichian population, and 95.8 percent of the Kuruman population. Half of the Muthuvan population and 51.85 percent of the Malayarayar community resides in the Idukki district. 99 percent of the Irula population is concentrated in the Palakkad district. However, the tribal community in Kerala is largely heterogeneous. Each community has different traditions and follows different social custom, beliefs, rules and practices. With the introduction of modern transportation, health, educational facilities, political and media interferences has lead to remarkable changes in the traditional lives of the tribal population of the state. Nevertheless, the wind of development has not been strong enough to uproot their traditional ways of life. Even today, many sections of the tribal population in the state are cut off from the main stream society; geographically isolated, leading secluded lives in the far away forest areas.

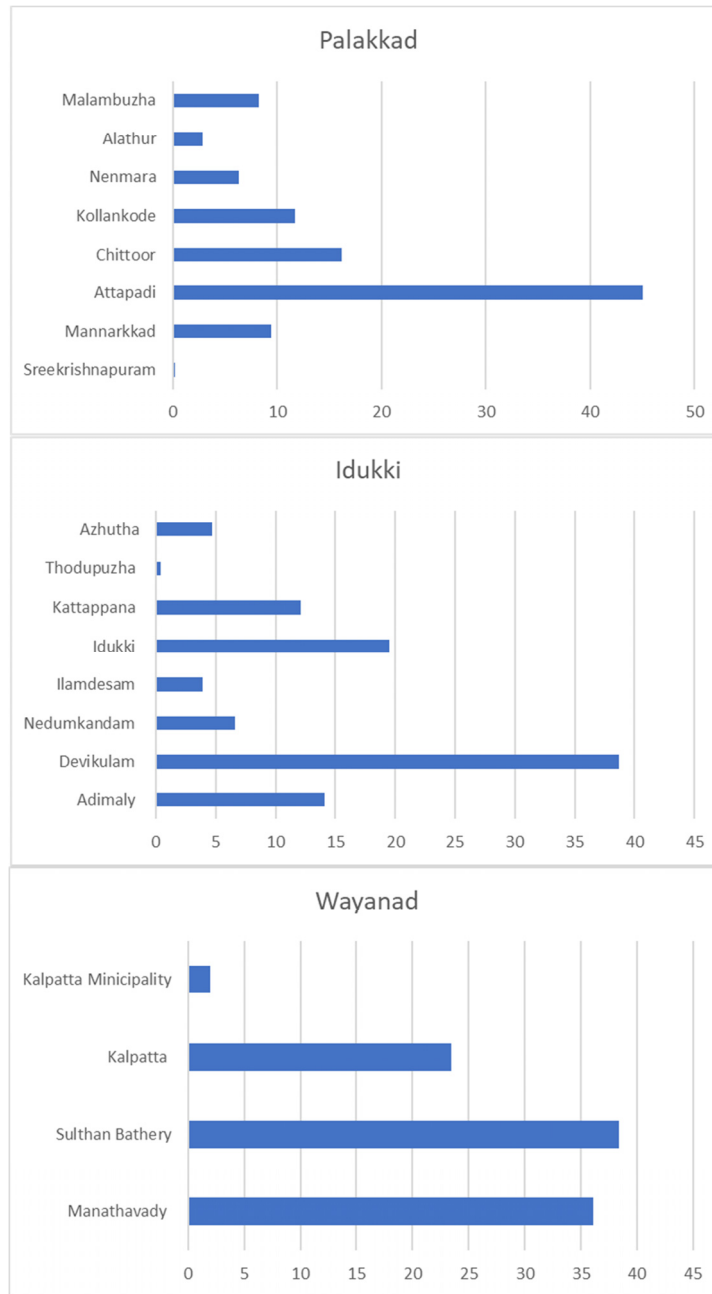
While the caste-based spatial segregation issues have been a common problem in Kerala, the issues of segregation of the tribes is more severe and intense. Within the tribes segregation is evident on the basis of tribal sub groups like Paniya, Kuruma, Kattunaika, Irula, Kurumba, etc. and these are termed as

settlements/hamlets or colonies. The segregation based on community evident from the district wise data shown in Table 3.9, Figure 3.5, Table 3.10 and Figure 3.6. The segregation is largely based on the concentration of a community in a particular district. Irulas of Palakkad district, Malayarayans of Idukki district and Paniyas of Wayanad district are some examples of tribal segregation. The financial status and land-owning capacity of the tribes is also a determining factor in segregation as is evident from the fact that the backward communities like the Irulas and Paniyans face more segregation compared to the forward tribal groups like the Malayarayans. Also, there exists a mutual relationship between housing segregation (based on backwardness) and the number of hamlets in one area.

Table 3.9 : District-wise spatial segregation of tribal hamlets

Palakkad			Idukki			Wayanad		
Block Panchayat	Hamlets		Block Panchayat	Hamlets		Block Panchayat	Hamlets	
	Number	Percent		Number	Percent		Number	Percent
Sreekrishnapuram	1	0.23	Adimaly	36	14.06	Manathavady	783	36.13
Mannarkkad	40	9.39	Devikulam	99	38.67	Sulthan Bathery	832	38.39
Attapadi	192	45.07	Nedumkandam	17	6.64	Kalpatta	509	23.49
Chittoor	69	16.2	Ilamdesam	10	3.91	Kalpatta Municipality	43	1.98
Kollankode	50	11.74	Idukki	50	19.53			
Nenmara	27	6.34	Kattappana	31	12.11			
Alathur	12	2.82	Thodupuzha	1	0.39			
Malambuzha	35	8.22	Azhutha	12	4.69			
Total	426	100	Total	256	100	Total	2167	100

Source: Worked out from STDD data



Source: Worked out from STDD data

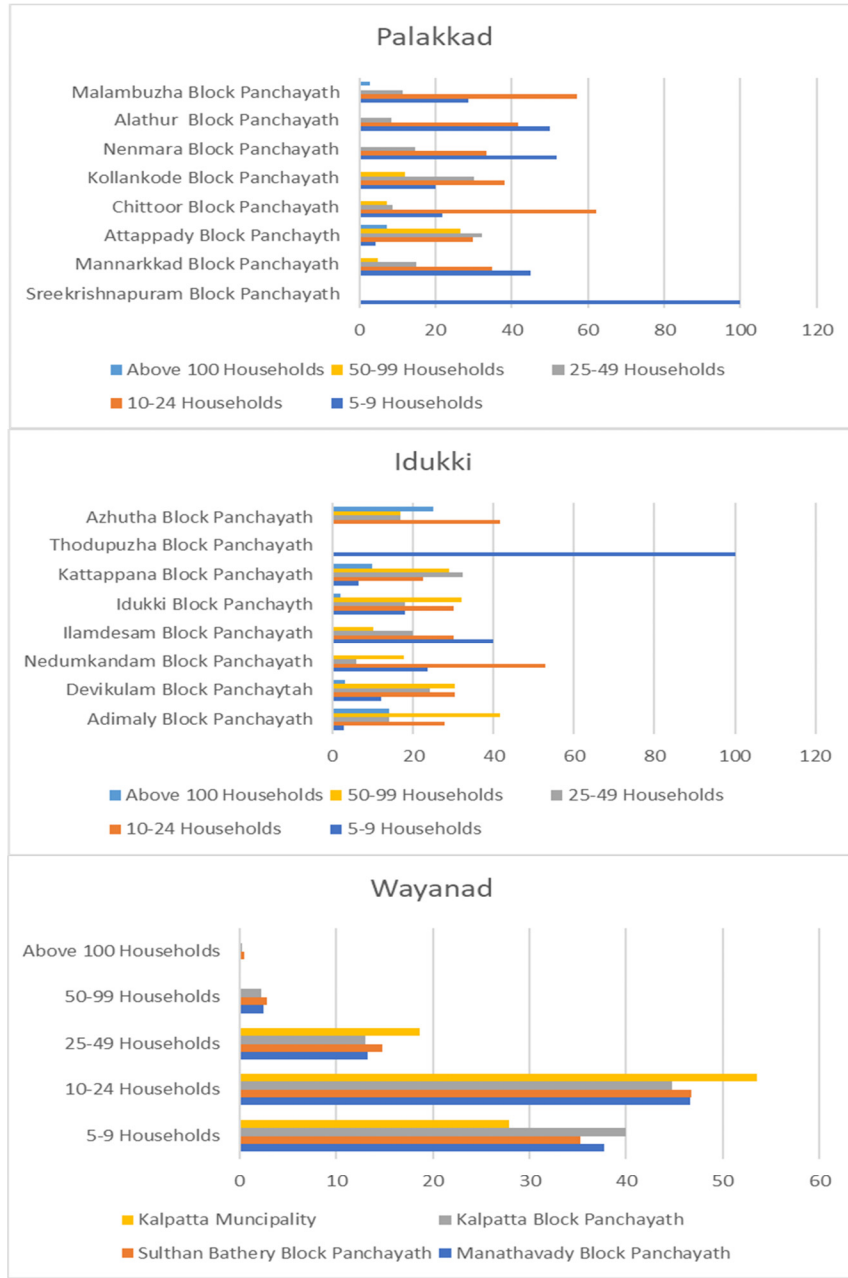
Figure 3.5 : Spatial Segregation of Tribal Hamlets based on District (in percent)

It shows that 192 out of the 426 tribal hamlets in Palakkad are in Attapady Block Panchayath which is 45.07 percent of the total sample (Table 3.10 and Figure 3.6). The concentration of tribal hamlets in Idukki district is in Devikulam block panchayath. The proportion of households in each tribal colony is mostly 10-99 households. The Mananthavady, Sulthan Bathery and Kalpetta block panchayaths houses the tribes in equal proportion and hence can be termed as the major tribal belts based on segregation. However, contrary to the other two districts, the concentration of tribal hamlets in Wayanad is entirely different as the proportion of households in each hamlet ranges from 5 to 24, much lower than the general condition of other two districts.

Table 3.10 : District-wise spatial distribution of tribal hamlets on the basis of number of households

	Block Panchayath	5-9 Households	10-24 Households	25-49 Households	50-99 Households	Above 100 Households	Total
Palakkad							
1	Sreekrishnapuram Block Panchayath	100.0	0.0	0.0	0.0	0.0	100
2	Mannarkkad Block Panchayath	45.0	35.0	15.0	5.0	0.0	100
3	Attappady Block Panchayth	4.2	29.7	32.3	26.6	7.3	100
4	Chittoor Block Panchayath	21.7	62.3	8.7	7.2	0.0	100
5	Kollankode Block Panchayath	20.0	38.0	30.0	12.0	0.0	100
6	Nenmara Block Panchayath	51.9	33.3	14.8	0.0	0.0	100
7	Alathur Block Panchayath	50.0	41.7	8.3	0.0	0.0	100
8	Malambuzha Block Panchayath	28.6	57.1	11.4	0.0	2.9	100
Idukki							
1	Adimaly Block Panchayath	2.8	27.8	13.9	41.7	13.9	100
2	Devikulam Block Panchayath	12.1	30.3	24.2	30.3	3.0	100
3	Nedumkandam Block Panchayath	23.5	52.9	5.9	17.6	0.0	100
4	Ilamdesam Block Panchayath	40.0	30.0	20.0	10.0	0.0	100
5	Idukki Block Panchayth	18.0	30.0	18.0	32.0	2.0	100
6	Kattappana Block Panchayath	6.5	22.6	32.3	29.0	9.7	100
7	Thodupuzha Block Panchayath	100.0	0.0	0.0	0.0	0.0	100
8	Azhutha Block Panchayath	0.0	41.7	16.7	16.7	25.0	100
Wayanad							
1	Manathavady Block Panchayath	37.7	46.6	13.2	2.4	0.1	100
2	Sulthan Bathery Block Panchayath	35.3	46.8	14.8	2.8	0.4	100
3	Kalpatta Block Panchayath	39.9	44.8	13.0	2.2	0.2	100
4	Kalpatta Municipality	27.9	53.5	18.6	0.0	0.0	100

Source: Worked out from STDD data



Source: Worked out from STDD data

Figure 3.6 District-wise spatial distribution of tribal hamlets on the basis of number of households

The Irulas, the most prominent tribe in Palakkad, has the largest number of tribal hamlets (191). The Malayarayangans, with 104 hamlets, is the largest tribe in Idukki. The Paniyans, with 1210 hamlets, is the most prominent tribe in Wayanad and even in Kerala (Figure 3.7).

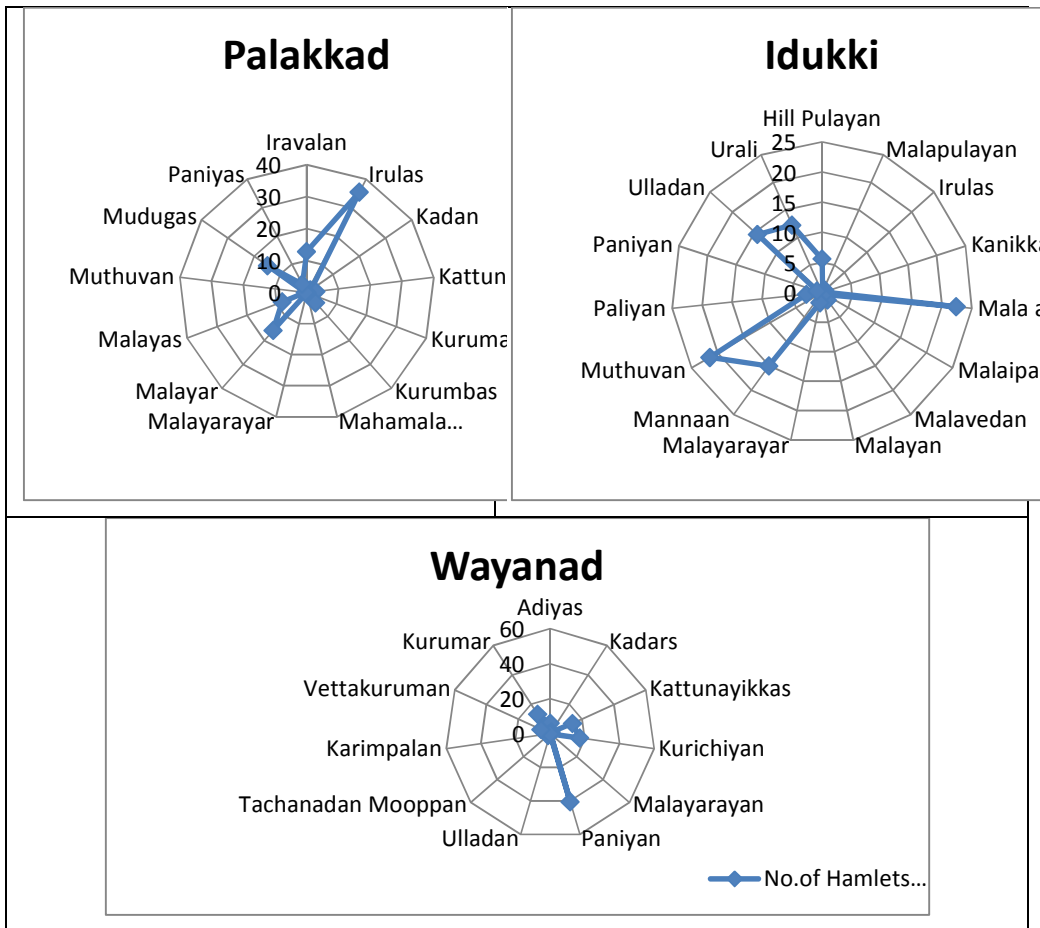


Figure 3.7 : Community-wise segregation of tribal hamlets in Palakkad, Idukki and Wayanad Districts

3.2.3 Basic Infrastructure Facilities in Tribal colonies: an inter-community and inter-district comparison

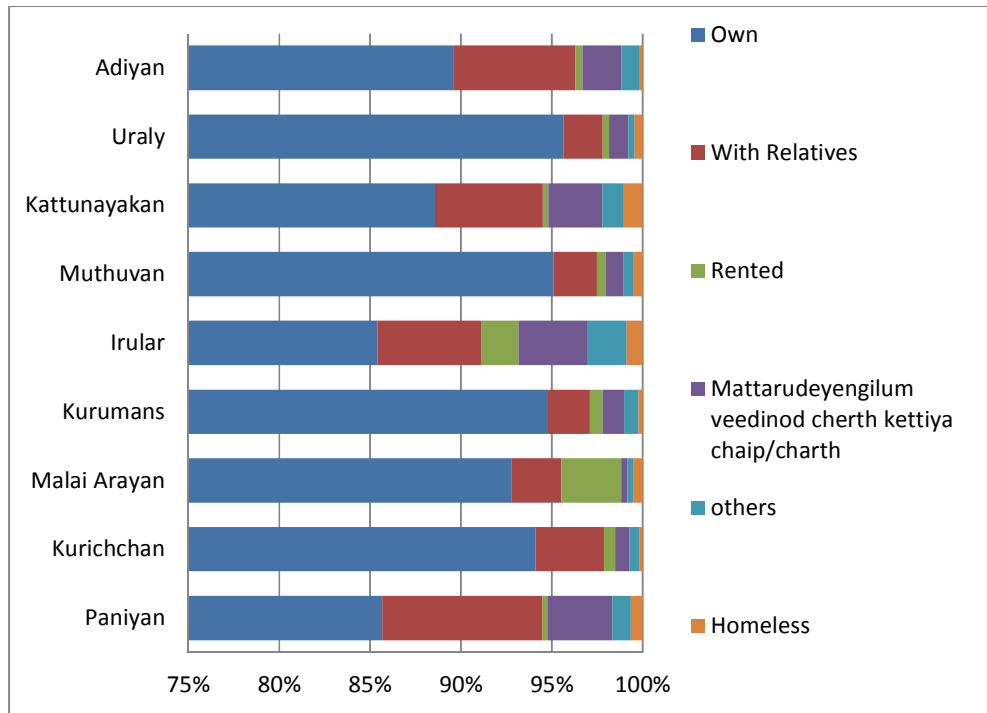
3.2.3.1 Place of stay

Majority of the tribes reside in their own house (90.49 percent). However, the inter-community difference in the ownership of house is crystal clear from the data as the proportion of the tribes staying in their own house is higher among the forward tribal groups. On the contrary the poor and primitive tribal groups Paniya and Irula have low percentage. The inter-community disparity in the ownership of house is clearly evident from the results depicted in Table 3.11 and Figure 3.8.

Table 3.11 : Place of Stay

Serial No	Tribal Community	own	With Relatives	Rented	Shed connected to others house
1	Adiyan	2309	172	10	55
2	Urali	1242	23	11	8
3	Kattunayakan	4550	304	16	153
4	Muthuvan	4856	121	25	49
5	Irular	6504	434	157	287
6	Kurumans	88	13	3	8
7	Malai Arayan	3267	86	109	7
8	Kurichian	7868	315	52	67
9	Paniyan	18507	1905	56	773
	Total	49191	3373	439	1407

Source: STDD data



Source: STDD data

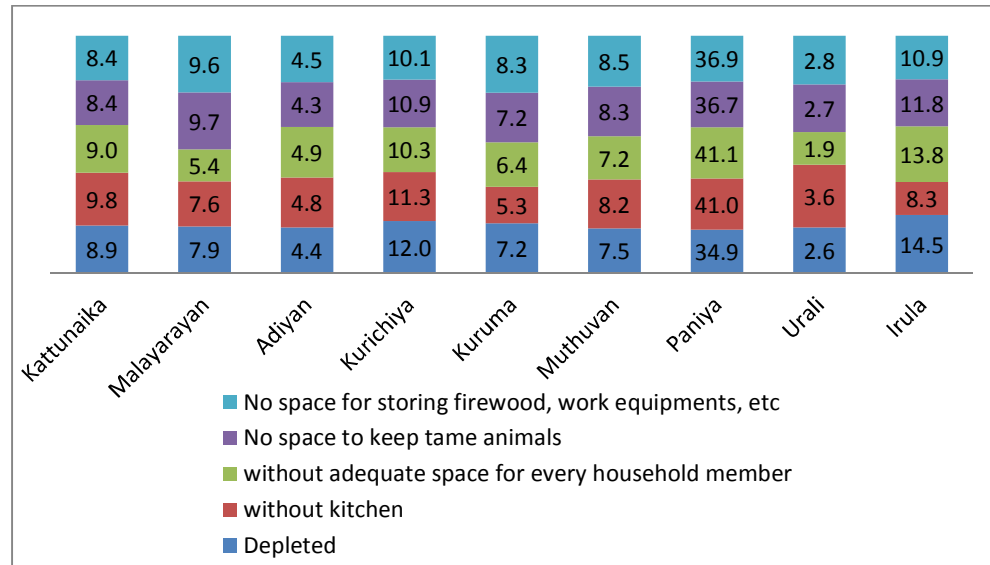
Figure 3.8 : Tribal Community-wise place of stay

Most of the Tribes lives in extremely deplorable conditions. They usually live in one room or two room buildings mostly in torn out situation. It is disturbing to note that these houses have more than four family members. The drinking water facilities and sanitary conditions do not satisfy the tribal population. They live in complete distress. Among the tribal communities, the Paniya community experiences pathetic housing condition (Table 3.12 and Figure 3.9).

Table 3.12 : Condition of Houses

		Depleted	Without Kitchen	Without adequate space for every household member	No space to keep tamed animals
1	Adiyan	1453	1251	1573	2278
2	Urali	559	630	450	1029
3	Kattunayakan	2950	2567	2873	4450
4	Muthuvan	2465	2137	2313	4429
5	Irular	4779	2161	4429	6245
6	Kurumans	49	54	64	99
7	Malai Arayan	1356	964	983	2405
8	Kurichian	3957	2950	3303	5861
9	Paniyan	11537	10699	13164	19485
	Total	29105	23413	29152	46281

Source: STDD data



Source: Worked out from STDD data

Figure 3.9: Tribal Community-wise condition of the houses

In terms of landlessness, it is seen that in Idukki, the Hill Pulaya have the highest proportion of landless households (71 families). The Muthuvan and Mannan come second in the list with 32 and 29 families, respectively. Muthuvan community has 172 houseless families. Even among those families who are having houses, 72 percent of the houses are uninhabited. Other communities include Hill Pulaya and Malayarayan (105 and 101 families). In this category other community's percentages are the Mannan with 55.60 percent, the Hill Pulaya with 47 percent and the Urali with 44.50 percent.

If the dual impact of the landlessness and homelessness have to be considered, Muthuvan is the most marginalized tribal group in Idukki. In Palakkad, the plight of the Irular community in terms of landlessness, homelessness and uninhabitable houses is pathetic. 75.24 percent of the houses of the PVTG group in Palakkad viz. Kurumba are in dilapidated situation. In terms of landless communities in Wayanad, Paniya and Kattunaika lead the pack with 8.26 and 4.87 percent of the landless households. With regard to uninhabitable households in Wayanad, both these social groups are close at 52.84 percent for Kattunaika and 52.14 percent for Paniya.

3.2.3.2 Access to Educational Institutions

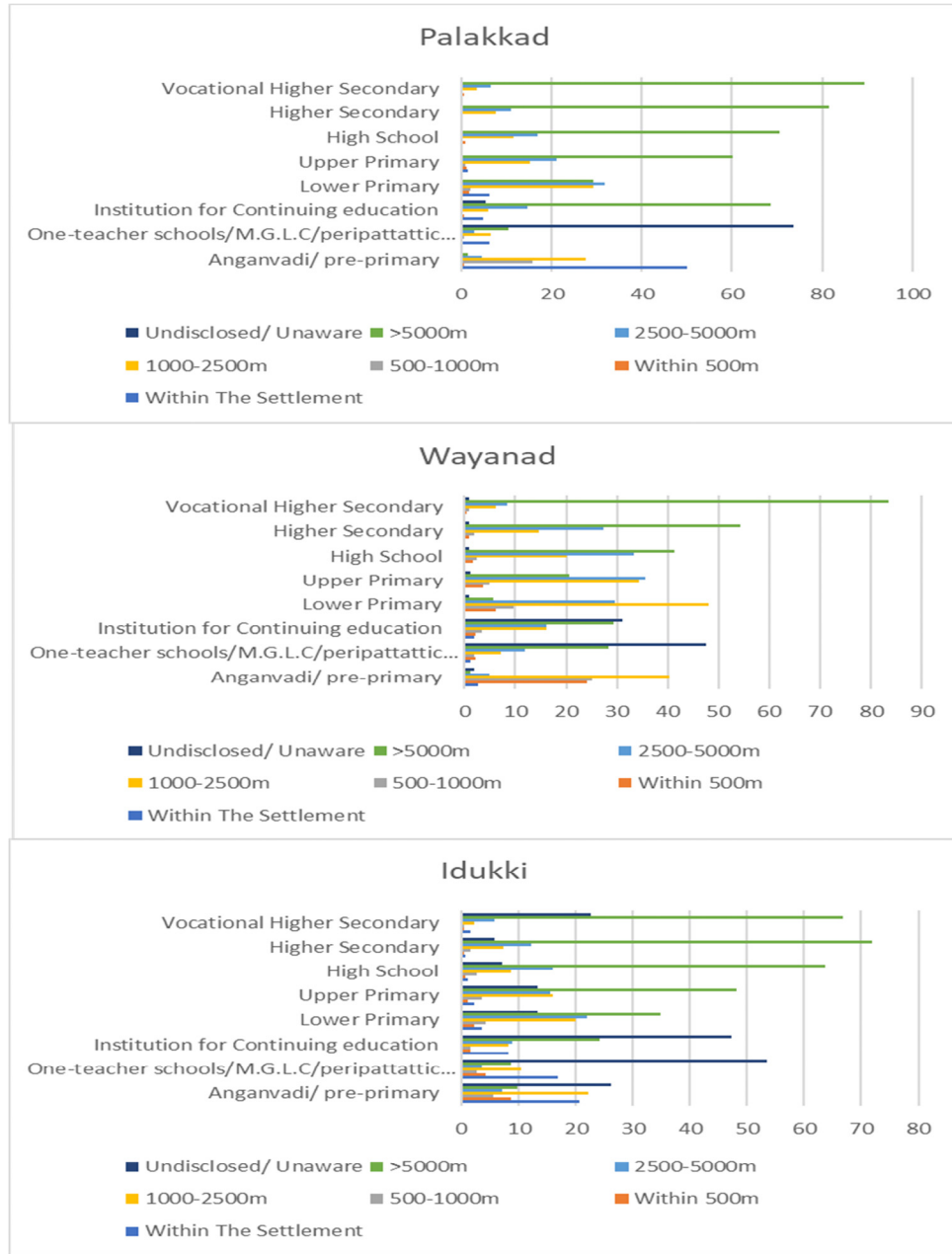
High dropout ratio among tribal communities hinders their socio economic development. The existence of educational institutions in close proximity to the tribal hamlets will drastically reduce the dropout ratio. This will help the tribes to come out the shell of shyness and be able to face the society with vigour and enthusiasm. Among the Districts under our study, Palakkad and Idukki district faces constraints in accessing educational institutions (Table 3.13 and Figure 3.10).

Table 3.13 : Settlements on the basis of accessibility to public education institutions

Public Educational Institutions	Hamlets (in percent)						
	Within The Settlement	Within 500m	500-1000 m	1000-2500 m	2500-5000 m	>5000 m	Undisclosed/ Unaware
Palakkad							
Anganvadi/ pre-primary	50	0.70	15.73	27.70	4.46	1.41	0
One-teacher schools/M.G.L.C/peripattattic school	6.10	0	0.47	6.57	2.82	10.33	73.71
Institution for Continuing education	4.93	0.47	0.23	5.87	14.55	68.54	5.40
Lower Primary	6.10	1.64	2.11	29.34	31.69	29.11	0
Upper Primary	1.41	1.17	0.94	15.26	21.13	60.09	0
High School	0	0.94	0.23	11.50	16.90	70.42	0
Higher Secondary	0	0	0	7.51	11.03	81.46	0
Vocational Higher Secondary	0	0.47	0	3.52	6.57	89.44	0
Wayanad							
Anganvadi/ pre-primary	2.68	24.00	25.06	40.33	4.85	1.11	1.98
One-teacher schools/M.G.L.C/peripattattic school	1.15	2.26	1.80	7.11	11.81	28.33	47.53
Institution for Continuing education	1.85	2.17	3.46	16.06	16.11	29.26	31.10
Lower Primary	0.09	6.18	9.69	47.95	29.49	5.63	0.97
Upper Primary	0.09	3.55	4.98	34.24	35.53	20.49	1.11
High School	0.05	1.66	2.40	20.12	33.41	41.44	0.92
Higher Secondary	0	0.92	1.89	14.63	27.23	54.41	0.92
Vocational Higher Secondary	0	0.32	0.97	6.05	8.26	83.39	1.02
Idukki							
Anganvadi/ pre-primary	20.70	8.59	5.47	22.27	7.03	9.77	26.17
One-teacher schools/M.G.L.C/peripattattic school	16.80	4.30	2.73	10.55	3.52	8.59	53.52
Institution for Continuing education	8.20	1.56	1.56	8.20	8.98	24.22	47.27
Lower Primary	3.52	2.34	4.30	19.92	21.88	34.77	13.28
Upper Primary	2.34	1.17	3.52	16.02	15.63	48.05	13.28
High School	1.17	0.78	2.73	8.59	16.02	63.67	7.03
Higher Secondary	0.78	0.39	1.56	7.42	12.11	71.88	5.86
Vocational Higher Secondary	1.56	0.39	0.39	2.34	5.86	66.80	22.66

Source: Worked out from STDD data

The access to higher education institutions from the tribal hamlets of the three districts is shown in Table 3.14 and Figure 3.11. The problems are difficulties faced by the tribes in terms of access to higher educational institutions is clearly evident from the data.



Source: Worked out from STDD data

Figure 3.10 : Settlements on the basis of accessibility to public education institutions

Table 3.14 : Access to Higher Education Institutions

Higher Education Institutions	Hamlets (in percent)									
	1km	1-2.5km	2.5-5km	5-10km	10-25km	25-50km	50-100km	>100km	Undisclosed/ Unaware	Total
Palakkad										
Arts and Science Colleges	0.0	0.0	0.7	4.7	33.6	38.7	21.8	0.5	0.0	100
ITI/Polytechnic	0.7	0.7	3.3	10.1	45.8	28.2	11.0	0.2	0.0	100
Engineering College	0.0	0.0	0.0	0.9	7.0	52.3	31.9	7.7	0.0	100
Medical College	0.0	0.0	0.9	1.4	0.0	0.7	34.5	62.4	0.0	100
Other Professional Educational Institutions	0.7	0.2	1.9	2.8	6.8	2.3	42.0	27.9	15.3	100
Wayanad										
Arts and Science Colleges	0.7	1.6	4.6	18.4	59.3	13.4	1.0	0.2	0.7	100
ITI/Polytechnic	0.8	0.9	6.5	13.4	48.2	23.9	5.6	0.1	0.8	100
Engineering College	0.3	0.6	1.4	4.4	18.4	60.7	13.5	0.0	0.6	100
Medical College	0.0	0.0	0.0	0.0	0.0	0.6	43.6	55.7	0.0	100
Other Professional Educational Institutions	0.5	0.8	3.9	5.4	11.5	2.3	0.4	0.1	75.1	100
Idukki										
Arts and Science Colleges	1.2	1.2	1.6	7.0	10.9	36.7	17.6	2.0	21.9	100
ITI/Polytechnic	4.7	0.8	2.0	6.3	14.5	20.3	15.2	15.6	20.7	100
Engineering College	2.3	0.0	1.2	0.8	15.6	44.9	22.7	2.3	10.2	100
Medical College	7.0	0.0	0.0	0.4	2.7	2.7	18.4	42.2	26.6	100
Other Professional Educational Institutions	0.0	0.0	0.4	0.8	4.7	3.5	1.2	0.0	89.5	100

Source: Worked out from STDD data

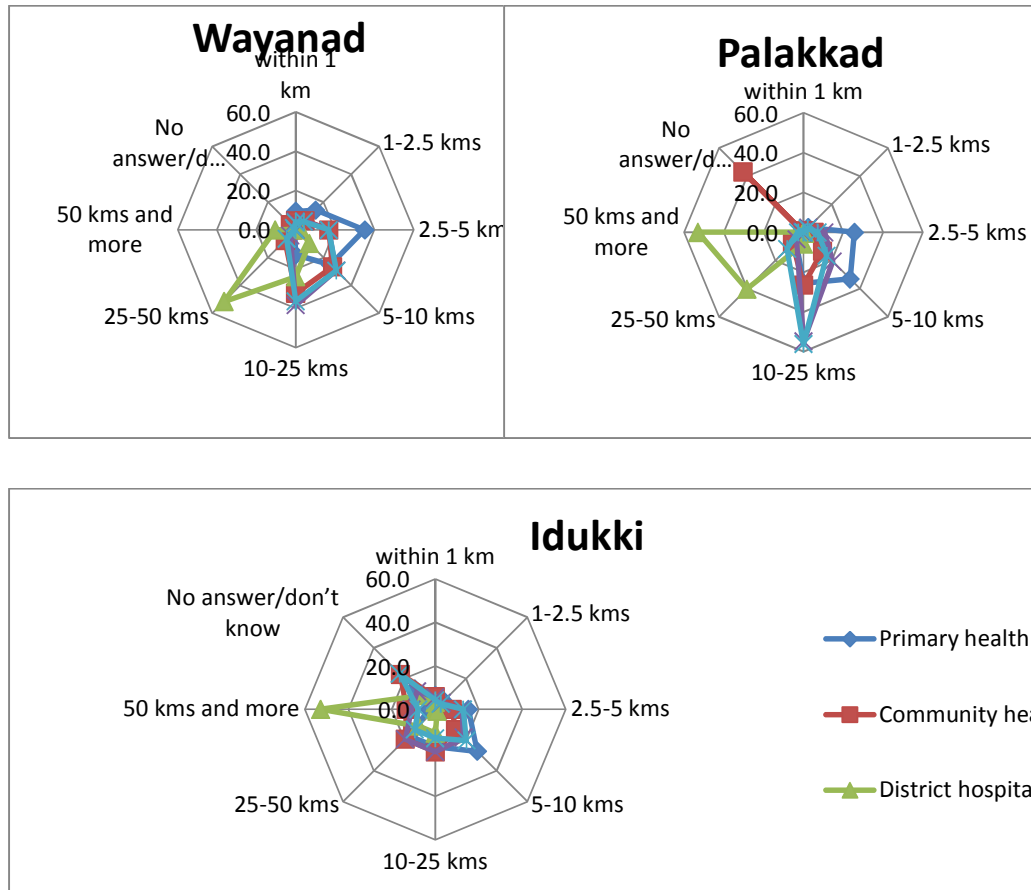


Source: Worked out from STDD data

Figure 3.11 : Access to Higher Education Institutions

3.2.3.3 Access to health care

The tribal hamlets are areas of poverty which results in high morbidity and high mortality rates. The existence of health care institutions near to the hamlets is an essential service. It is the responsibility of the authorities to provide timely health care services to the needy. The tribes see the hospitals as their last resort. They often rely on their own ethnic medicines and rituals. An awareness regarding the medical facilities should be provided to the tribal population. The Primary health centres are situated locally as can be seen from the Figure 3.12 in the districts under our consideration. But the tribes do not make necessary use of it.

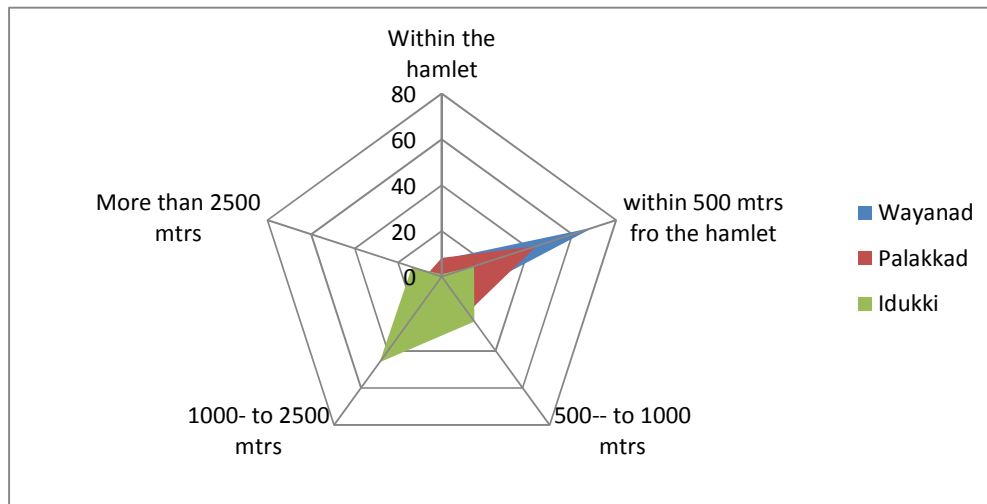


Source: Worked out from STDD data

Figure 3.12 : District-wise distance to healthcare institutions

3.2.3.4 Access to Drinking water facilities

Access to safe and adequate drinking water is a pre requisite for a healthy citizen. The tribal population also enjoys the right to life that ensures continuous availability of drinking water. In Idukki district, only 1.17 percent have access to drinking water. The respective figures in Palakkad and Wayanad is 7.61 and 8.22 (Figure 3.13). The tribes usually have to walk long distance to collect drinking water. Women and children are the worst affected due to the non-availability of drinking water.

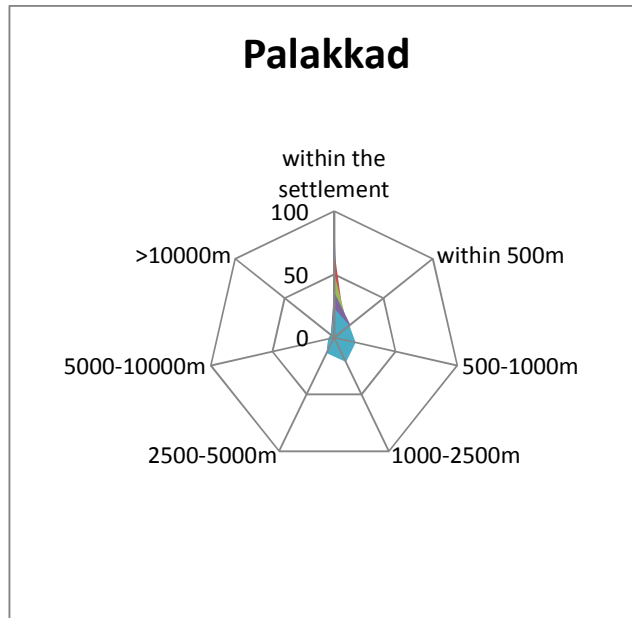
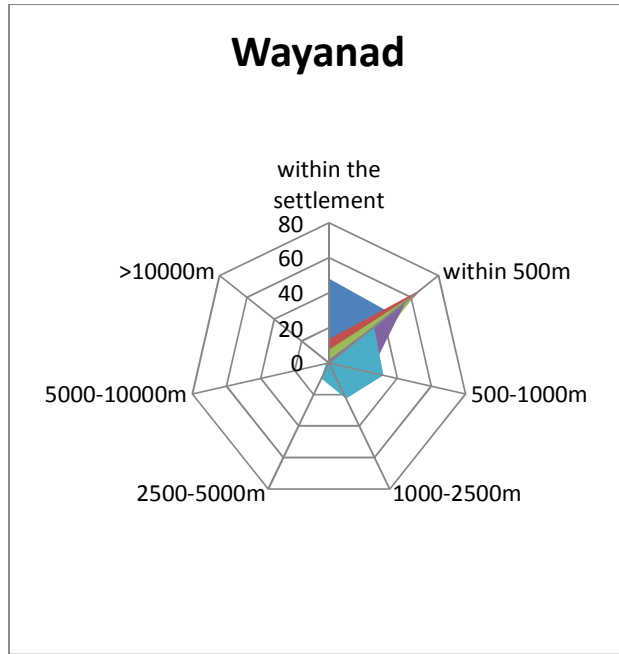


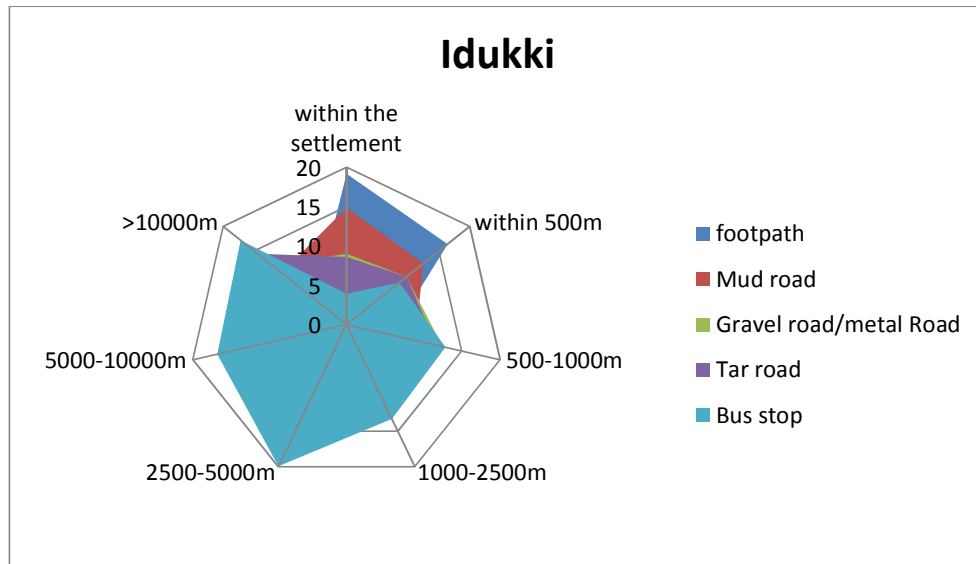
Source: Worked out from STDD data

Figure 3.13 : District-wise drinking water availability in hamlets

3.2.3.5 Access to Transport facilities.

The geographical position of the tribal hamlets makes it inaccessible. It is difficult to construct roads and too difficult to maintain it. But the non-availability of adequate transport facilities results in low access to medical care facilities. The welfare programmes of the government does not reach the inaccessible areas which results in accentuated poverty in tribal hamlets. The district wise differences show that the Idukki district accounts for the highest transportation facilities while the performance of Wayanad and Palakkad is poor. (Figure 3.14).





Source: Worked out from STDD data (2012)

Figure 3.14 : District-wise Availability of Transportation Facilities

Thus, Land alienation and residential segregation are the two inter linked forces that hinders the development of tribal economy. The tribes must have access to cultivable agricultural land to improve their livelihood. They must also be provided with the basic and essential services to sustain their right to life.

3.2.3.6 Access to Day-to-day necessities

Proper access to day-to-day necessities of life is vital for the socio-cultural advancement of the tribes. The institutions evaluated include health sub-centre, private clinic/doctor, medical store, ration shop, grocery shop, market, community hall, public playground, library/*vayanashala* and *Thadi Ithara Vanavibhava Sambharana Shaala*. Most of the institutions are located between 1-2.5 kms, 2.5-5 kms and even above 5 kms distance from the hamlets in majority of cases (Table 3.15).

Table 3.15 Settlements on the basis of accessibility to institutions meeting day-to-day necessities

Institutions Meeting Day-To-Day Necessities	Hamlets (In Percent)						
	Within The Settlement	Within 500m	500-1000m	1000-2500m	2500-5000m	> 5000m	Undisclosed/ Unaware
Palakkad							
Health Sub Centre	6.81	2.11	1.64	27.93	30.05	31.46	0
Private Clinic/Doctor	0.70	0.94	0	8.22	13.38	75.82	0.94
Medical Store	0.70	0.47	0.70	7.04	12.44	78.64	0
Rationshop	7.28	3.76	2.58	45.54	22.30	18.54	0
Grocery Shop	11.74	4.46	5.87	46.01	11.97	19.95	0
Market	3.52	1.17	3.76	15.02	21.36	55.16	0
Community Hall	27.23	1.17	0.94	11.50	9.86	44.60	4.69
Public Playgrouound	2.35	0	1.88	15.73	20.19	52.35	7.51
Library/Vayanashala	1.88	0.70	0	10.80	13.15	70.89	2.58
Thadi Ithara Vanavibhava Sambharana Shaala	3.99	0	0	6.34	5.87	49.06	34.74
Wayanad							
Health Sub Centre	0.37	3.46	5.45	34.52	31.80	23.17	1.25
Private Clinic/Doctor	0.05	0.97	1.06	14.54	31.47	51.45	0.46
Medical Store	0.18	1.15	1.80	15.74	31.80	48.59	0.74
Rationshop	0.37	6.83	13.47	52.28	19.84	6.46	0.74
Grocery Shop	0.18	6.69	10.66	35.81	24.27	21.55	0.83
Market	0.05	1.43	3.05	21.64	29.53	43.42	0.88
Community Hall	0.69	2.40	3.23	14.17	30.09	47.72	1.71
Public Playgrouound	0.28	3.32	4.52	29.35	23.49	33.18	5.86
Library/Vayanashala	0.92	3.97	7.52	30.04	26.77	25.70	5.08
Thadi Ithara Vanavibhava Sambharana Shaala	0.14	1.15	0.42	3.00	4.43	67.79	23.07
Idukki							
Health Sub Centre	1.95	0.78	1.17	15.23	14.84	53.13	12.89
Private Clinic/Doctor	0.78	1.95	1.17	9.38	12.50	59.77	14.45
Medical Store	0.78	1.95	1.56	10.94	12.89	62.50	9.38
Rationshop	3.13	5.08	3.91	22.66	21.48	36.72	7.03
Grocery Shop	5.47	5.08	5.47	20.70	19.14	35.16	8.98
Market	1.95	1.17	1.56	9.38	13.28	65.23	7.42
Community Hall	8.59	5.47	3.13	12.89	9.38	20.70	39.84
Public Playgrouound	4.69	2.34	0.78	7.03	5.08	16.80	63.28
Library/Vayanashala	2.73	3.52	1.56	9.77	10.94	26.17	45.31
Thadi Ithara Vanavibhava Sambharana Shaala	2.34	0	0	1.17	1.95	24.61	69.92

Source: Worked out from STDD data

3.2.3.7 Access to Public Utilities

The availability of public utilities in close proximity is imperative for an efficient living. Table 3.16 shows that distance to public utilities from the tribal hamlets in the three districts is not so appealing or promising.

Table 3.16 : Distance between Service Centres and Tribal Settlements

Institutions	1km	1-2.5km	2.5-5km	5-10km	10-25km	25-50km	50-100km	>100km	Undisclosed/ Unaware	Total
Palakkad										
Village Office	5.6	5.9	27.5	34.7	22.5	0.5	2.3	0	0.9	100
Post Office	17.8	16.7	37.8	19.7	7.3	0	0	0	0.7	100
Police Station/Police Out Post	3.3	3.8	11.7	26.8	47.4	6.6	0.2	0	0.2	100
Telephone Booth	41.1	18.5	17.6	12.4	9.6	0	0	0	0.7	100
Vetenary Hospital/Dispensary	6.1	6.8	24.2	37.1	20.9	2.8	1.4	0	0.7	100
<i>Krishibhavan</i>	2.8	2.3	12.7	34.3	36.9	7.7	2.8	0	0.5	100
Electricity Board Section Office	0.9	3.1	9.9	20.9	51.6	9.9	2.3	0	1.4	100
Water Authority Section Office	1.6	1.9	4.2	10.6	43.2	19.2	18.5	0.2	0.5	100
Internet/ <i>Akshaya</i> Centre	5.2	5.2	18.8	31.0	31.9	5.2	2.3	0	0.5	100
Wayanad										
Village Office	9.7	16.4	36.0	27.6	7.3	0.5	0	0	2.4	100
Post Office	27.5	30.0	32.9	6.3	1.2	0.6	0	0	1.4	100
Police Station/Police Out Post	3.0	4.8	23.0	42.0	23.9	0.7	0	0	2.6	100
Telephone Booth	34.6	32.2	21.2	6.0	4.3	0.0	0	0.1	1.6	100
Vetenary Hospital/Dispensary	7.2	13.1	32.2	33.5	11.4	0.1	0	0	2.4	100
<i>Krishibhavan</i>	4.8	8.6	30.7	36.8	16.4	0.3	0	0	2.3	100
Electricity Board Section Office	2.1	3.8	17.7	35.9	35.3	2.4	0	0.1	2.5	100
Water Authority Section Office	1.5	2.2	7.8	20.1	56.5	10.2	0	0	1.6	100
Internet/ <i>Akshaya</i> Centre	9.0	14.5	37.1	26.9	9.9	0.4	0	0	2.2	100
Idukki										
Village Office	7.4	4.7	16.0	28.1	24.6	11.7	2.7	0	4.7	100
Post Office	13.3	10.2	25.0	21.1	13.3	8.2	2.3	0.8	5.9	100
Police Station/Police Out Post	6.3	2.3	12.1	27.0	28.5	15.2	4.3	0.4	3.9	100
Telephone Booth	19.5	9.0	18.4	20.7	10.9	7.8	3.1	0.4	10.2	100
Vetenary Hospital/Dispensary	9.4	4.3	16.0	30.5	23.4	9.4	2.3	0	4.7	100
<i>Krishibhavan</i>	5.9	3.5	11.3	33.2	24.6	14.5	2.7	0	4.3	100
Electricity Board Section Office	5.5	2.7	11.7	28.1	27.0	17.6	3.1	0.4	3.9	100
Water Authority Section Office	7.0	1.2	2.3	15.6	19.5	25.8	3.1	6.25	19.1	100
Internet/ <i>Akshaya</i> Centre	10.2	1.6	15.2	27.7	13.3	12.9	3.5	0	15.6	100

Source: Worked out from STDD data

3.2.3.8 Access to Other Public Institutions

The distance to other public institutions from the tribal hamlets is shown in Table 3.17. The distance from the hamlets to the financial institutions like banks, cooperative societies, NGOs, forest offices, courts, etc. is discussed for the three districts. Access to commercial banks within a 1 km radius is available to 4 percent of the hamlets. Majority of the tribes have to traverse 10-25 kms to access the banking services. Another issue is that most of the tribal sub groups are unaware of the use of these institutions.

Table 3.17: Distance from hamlets to Other Public Institutions

Distance To Other Public Institutions	Hamlets (in percent)									
	1km	1-2.5km	2.5-5km	5-10km	10-25km	25-50km	50-100km	>100km	Undisclosed/ Unaware	Total
Palakkad										
Commercial Bank	4.2	4.2	20.9	26.5	34.7	8.2	0.7	0	0.5	100
Primary Service Cooperative Banks	4.9	6.3	20.7	29.8	31.5	4.2	2.1	0	0.5	100
<i>Ksheera Karshaka</i> Cooperative Society	27.0	24.6	29.6	10.6	6.6	1.4	0.0	0	0.2	100
Scheduled Tribe Cooperative Society	3.5	2.3	9.9	15.3	22.1	10.3	1.4	0	35.2	100
NGOs Working for the Development Of ST	3.8	0.9	6.3	6.8	19.0	7.7	0.2	0	55.2	100
Forest Office	5.2	5.4	14.1	19.5	39.4	9.2	0	0	7.3	100
Judicial Court of Justice	0.0	0.5	0.9	3.3	31.0	42.0	22.1	0.2	0.0	100
Wayanad										
Commercial Bank	4.7	9.8	30.1	29.4	16.8	4.8	0	0	4.4	100
Primary Service Cooperative Banks	9.1	13.9	34.5	29.1	10.6	0.1	0	0	2.6	100
<i>Ksheera Karshaka</i> Cooperative Society	12.7	17.2	34.3	26.5	6.7	0.0	0	0	2.5	100
Scheduled Tribe Cooperative Society	1.4	2.3	8.4	18.1	46.1	8.3	0	0	15.3	100
NGOs Working for the Development Of ST	2.4	1.8	2.7	4.2	33.7	8.2	0	0	47.0	100
Forest Office	5.2	7.0	14.9	26.7	39.9	4.2	0	0	2.1	100
Judicial Court of Justice	1.0	0.7	3.6	18.6	61.6	11.9	1.1	0	1.6	100
Idukki										
Commercial Bank	4.7	3.5	11.3	16.4	10.9	10.5	2.0	0.4	40.2	100
Primary Service Cooperative Banks	6.3	5.9	15.6	25.0	15.2	12.1	2.0	0	18.0	100
<i>Ksheera Karshaka</i> Cooperative Society	11.7	10.2	18.4	15.2	8.2	8.6	2.0	0	25.8	100
Scheduled Tribe Cooperative Society	6.3	0.8	3.5	8.2	7.0	10.2	4.3	1.2	58.6	100
NGOs Working for the Development Of ST	7.4	0.8	1.6	4.3	2.3	10.5	1.6	1.2	70.3	100
Forest Office	7.0	5.1	13.7	19.9	23.0	11.3	1.2	0.0	18.8	100
Judicial Court of Justice	2.0	0.4	1.6	5.5	21.9	33.6	16.0	0.0	19.1	100

Source: Worked out from STDD data

The land alienation and housing segregation of the STs given in Chapter 3 presents the gravity in myriad levels like livelihood and inaccessibility to basic necessities. The government legislations, both the central and state, in this regard seemed to be unhelpful to the STs as it works in even denying their possession right for cultivation and settlement. These denials of their basic right to get the due share of their land triggered fierce land struggles either to usurp the lost control of the land or to get land for cultivation or dwelling purposes.

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Chapter 4

SOCIO ECONOMIC PROFILE OF TRIBAL COMMUNITIES

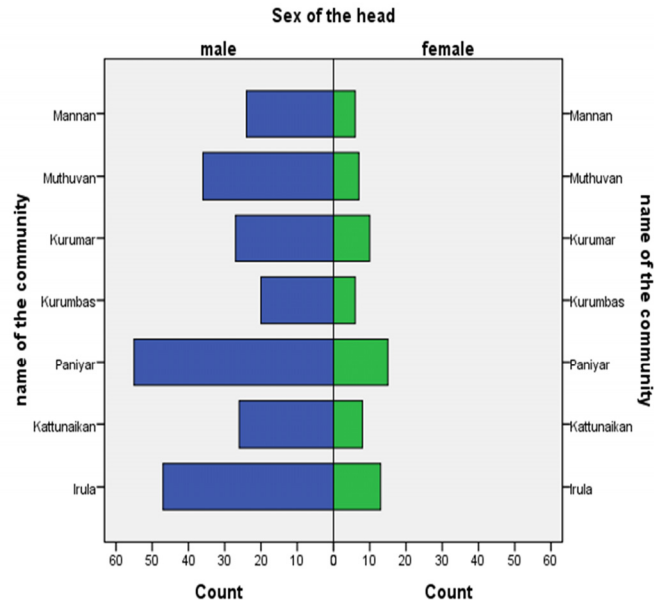
The analysis of socio-economic status of tribal communities reveal their relative position in the development process of Kerala economy. The results will be useful for the authorities to correctly diagnose the leakages and also will be helpful to prescribe appropriate strategies to push the tribal communities to the path of development. Chapter 4 analyses the inter-community differences on the basis of different socio-economic parameters based on the primary survey. Inter community differences recognizes the socio-economic position of each tribal community and inter district analysis vehemently explains the relative position of each tribal populated district in the development scenario of Kerala economy. The primary data from 300 respondents are collected from Wayanad, Palakkad and Idukki districts. Paniyar, Kurumar and Kattunaikan are the communities surveyed from Wayanad, the highest tribal populated district in Kerala. Muthuvan and Mannan communities from Idukki district, Irula and Kurumbas from Palakkad district are also studied in Chapter 4.

4.1 Socio-economic Profiles

4.1.1 Gender-wise Distribution of Samples

Males outnumber females in all the prominent communities as per the primary survey results (Table 4.1). The population pyramid also exhibits the same relation (Figure 4.1). About 78.33 percent respondents are males and 21.66 percent are females. Among the tribal communities, the Muthuvan community has

the highest percentage of male population (83.72 percent) and the Kurumar community enjoys the highest number of female respondents (27.02 percent).



Source: Compiled from Survey data.

Figure 4.1 : Population pyramid of Gender

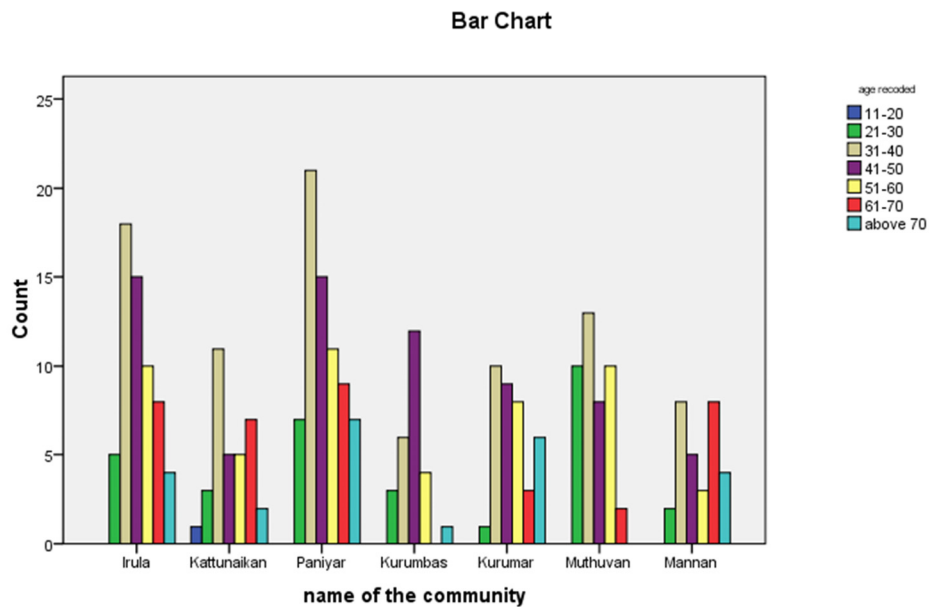
Table 4.1 : Gender wise distribution of Samples

Name of the community	Male	Female	Total
Irula	47	15	62
Kattunaikan	26	8	34
Paniyar	55	12	67
Kurumbas	22	6	28
Kurumar	27	10	37
Muthuvan	36	6	42
Mannan	24	6	30
Total	237	63	300

Source: Survey data.

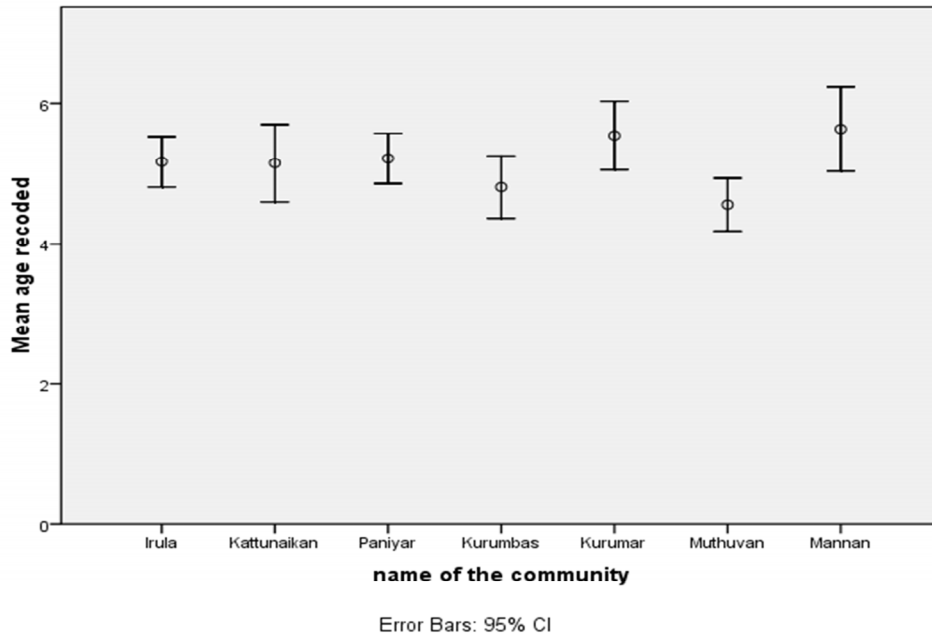
4.1.2 Age-wise Distribution of Respondents

A community wise analysis reveals that majority respondents belong to the age category 31-40 among the Irula, Kattunaikans, Kurumar, Muthuvan and Mannan. Among the Kurumbas the respondents belong to 41-50 age category (Figure 4.2). The mean age of the respondents is represented by the error bar diagram. it shows the mean age as 45-50. (Figure 4.3).



Source: Survey data

Figure 4.2 : Community and age

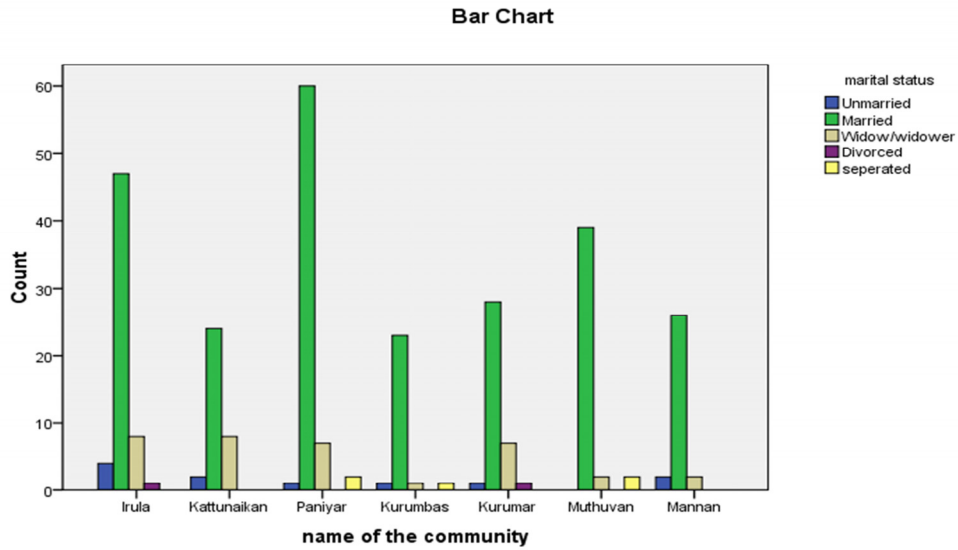


Source: Survey data

Figure 4.3 : Error Bar diagram

4.1.3 Marital Status

The majority of the respondents are married. The divorced form only a very small percentage of population. Among the Irula Community, a small percentage of population remains unmarried (Figure 4.4).

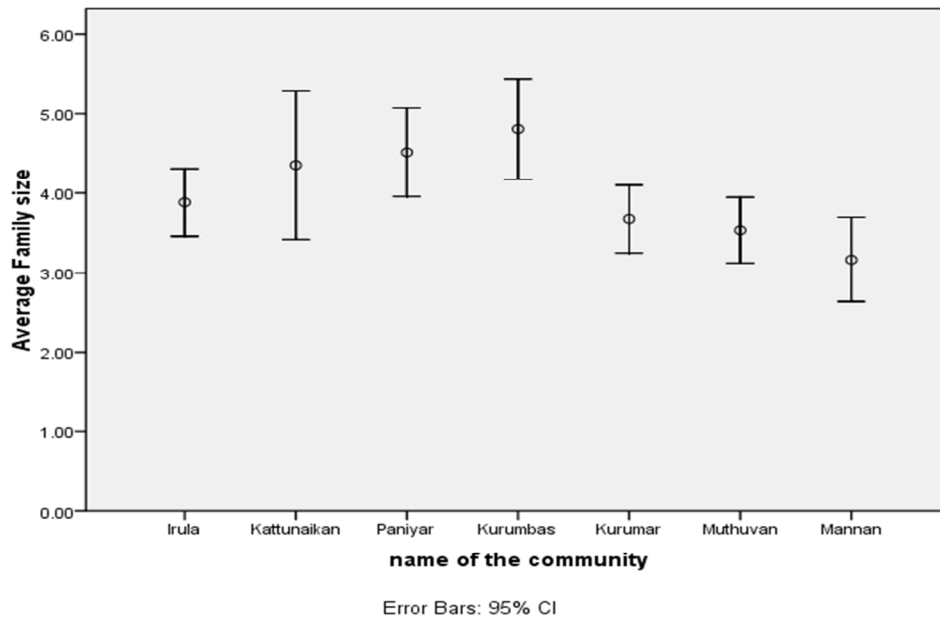


Source: Survey data

Figure 4.4 : Communities and Marital Status

4.1.4 Family size

The average family size as depicted by error bar diagram of the four Communities -Irula, Kattunaikan, Paniyar and Kurumbas is 4-5. The other three communities' averages around 3 to 4 (Figure 4.5).



Source: Survey data

Figure 4.5 : Community and Average Family Size

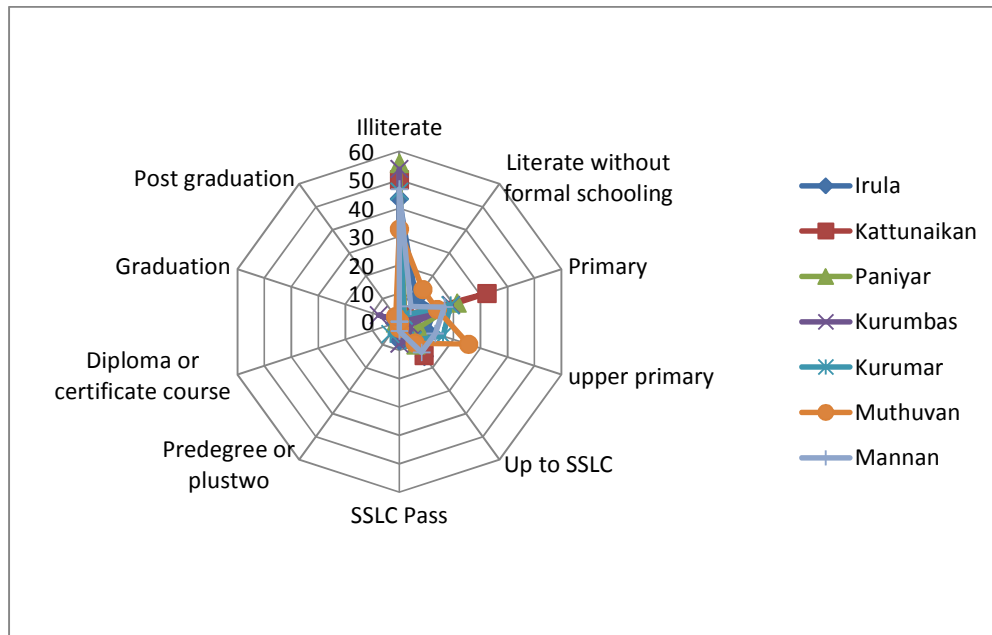
4.1.5 Educational Qualification

More than forty percent of the respondents are illiterate which asserts the incapability of the tribal people to earn a decent standard of living. Educational improvement substantially contributes to the overall socio-economic well-being of the people. The exception to this can be seen with regard to the Muthuvan Community. The illiteracy among the Muthuvan Community is less and a small minority of the people have earned Post Graduate qualification also (Table 4.2 and Figure 4.6).

Table 4.2 : Community and Education

	Illiterate	Literate without formal schooling	Primary	upper primary	Up to SSLC	SSLC Pass	Predegree or plustwo	Diploma or certificate course	Graduation	Post graduation
Irula	43.3	10	13.3	10	15	6.7	0	1.7	0	0
Kattunaikan	50	2.9	32.4	0	14.7	0	0	0	0	0
Paniyar	55.7	2.9	21.4	7.1	10	1.4	0	1.4	0	0
Kurumbas	53.8	0	19.2	3.8	7.7	7.7	0	0	7.7	0
Kurumar	45.9	2.7	18.9	16.2	8.1	2.7	5.4	0	0	0
Muthuvan	32.6	14	14	25.6	9.3	2.3	0	0	0	2.3
Mannan	46.7	6.7	16.7	13.3	13.3	3.3	0	0	0	0

Source: Survey data



Source: Survey data

Figure 4.6 : Community and Education

4.1.6 Income, employment and Saving

The Scheduled Tribe communities earn very less income. The insufficiency of agricultural land engulfed them in poverty and indebtedness. They find it really hard to meet their daily chores. The conversion of tribal people from agricultural farmers to daily wage casual labourers landed them in distress.

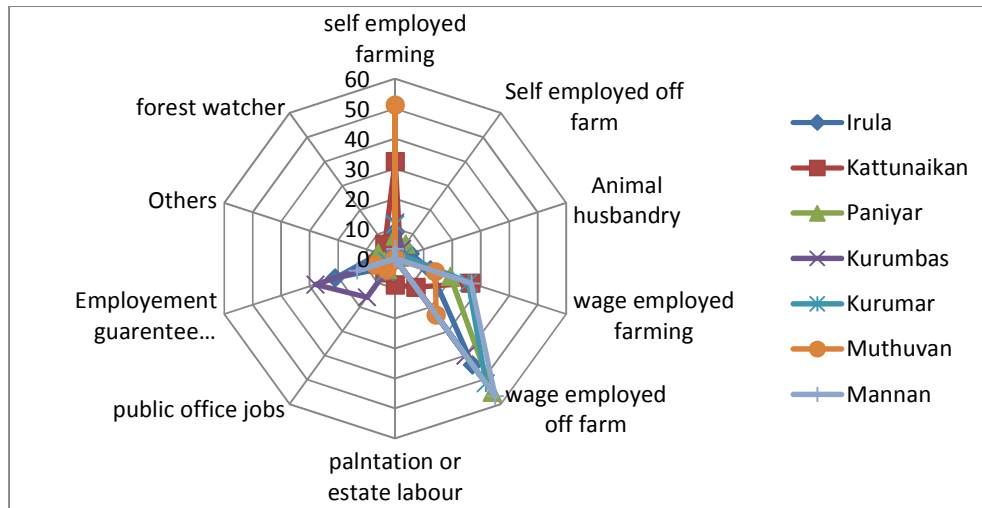
4.1.6.1 Income and employment

For the communities Irula, Paniyar, Kurumbas and Mannan wage employed off farm is recognised as their main occupation. The main employment for Kattunaikkan and Muthuvan includes self-employed farming also (Table 4.3, Figure 4.7). The tribes are often discriminated in terms of wage payment as casual labourers. They are not given payment at par with other general communities. They are often under paid in daily employment. Even though, reservation policies are in place, the tribal communities are not adequately represented in the government sector jobs.

Table 4.3 : Community and employment

name of the community	self employed farming	Self employed off farm	Animal husbandry	wage employed farming	wage employed off farm	plantation or estate labour	public office jobs	Employment guarantee schemes	Others	forest watcher
Irula	8.8	0	5.3	12.3	43.9	0	3.5	21.1	5.3	0
Kattunaikkan	32.4	2.9	0	26.5	11.8	8.8	5.9	5.9	0	5.9
Paniyar	7.5	6	1.5	19.4	55.2	0	4.5	0	6	0
Kurumbas	12	4	0	0	40	0	16	28	0	0
Kurumar	11.4	0	2.9	25.7	51.4	0	5.7	2.9	0	0
Muthuvan	51.2	0	0	14	23.3	0	4.7	7	0	0
Mannan	3.3	0	0	26.7	56.7	0	0	13.3	0	0

Source: Survey data



Source: Survey data

Figure 4.7 : Community and employment

A community wise analysis based on their monthly income reveals the fact that majority of the tribal population earns less than 5000. Muthuvan and Mannan community records a slight increase in their monthly income (Table 4.4). The null hypothesis “Average monthly income are same across different tribal sub groups” is tested with the help of Chi square analysis. The analysis reveals a significant difference in monthly income based on community (Table 4.5) and hence the null hypothesis is rejected.

Table 4.4 : Community and Monthly Income

name of the community * average monthly income recoded Crosstabulation								
% within name of the community		average monthly income recoded						
		Below 5000	5001-6000	6001-7000	7001-8000	8001-9000	9001-10000	Above 10001
name of the community	Irula	76.36	12.73				3.64	7.27
	Kattunaikan	58.82	5.88	5.88	2.94	2.94	8.82	14.71
	Paniyar	53.85	10.77	4.62	9.23	1.54	9.23	10.77
	Kurumbas	58.33	8.33	4.17	4.17	8.33	8.33	8.33
	Kurumar	58.82	14.71	5.88				20.59
	Muthuvan	46.34	24.39	7.32	7.32			14.63
	Mannan	39.29	10.71	21.43	14.29			14.29

Source: Survey data

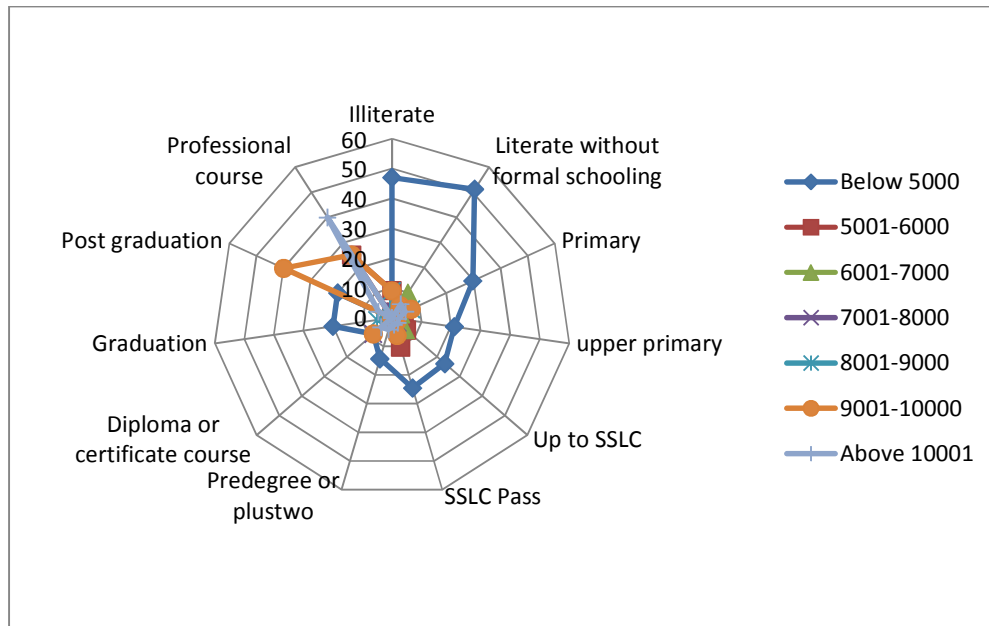
Table 4.5 : Chi-Square Tests: Community and monthly income

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	63.276a	36	.003
Likelihood Ratio	66.240	36	.002
Linear-by-Linear Association	2.861	1	.091
N of Valid Cases	281		

a. 36 cells (73.5%) have expected count less than 5. The minimum expected count is .34.

4.1.6.2 Education and Income

The results of the low education level among the tribal communities can be clearly evinced from the figure 4.8. Low income is the byproduct of poor education. As education improves, the income increases which directly alters the standard of living among the tribal communities. The Chi-square test clearly shows significant relation between education and the level of income (Table 4.6).



Source: Survey data

Figure 4.8 : Education and Income.

Table 4.6 : Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.356E2 ^a	77	.000
Likelihood Ratio	228.737	77	.000
Linear-by-Linear Association	7.885	1	.005
N of Valid Cases	1184		

a. 66 cells (68.8%) have expected count less than 5. The minimum expected count is .03.

4.1.6.3 Banking, Savings and Indebtedness

The amount of total indebtedness among the tribal communities varies from community to community. Among the Kattunaikan community, 43 percent of people has a total loan amount between 300-1000. The Mannan community also enjoys 45 percent of people in this category. More than 70 percent of Paniya community has a loan of 1000-20000. The majority Kurumar community has a loan of more than 20000. A substantial amount of population among the Muthuvan Community comes in the region of 1000-20000. Mannan community also have more population in the category of 300-1000 (Table 4.7).

Table 4.7 Amount of total indebtedness

Name of the Community	Amount of total indebtedness (in percentage)			
	300-1000	1000-10000	10000-20000	20000-30000
Kattunaikan	43	0	28	29
Paniyar	15	38	37	10
Kurumar	23	15	12	50
Muthuvan	0	40	40	20
Mannan	45	40	0	15

Source: Survey data

Most of the communities take loan for meeting their day to day expenditure (Table 4.8). This clearly shows the insufficiency of their income. The other major purposes include construction of house, farming and livestock and marriage. Education is given the least priority.

Table 4.8 : Purpose of loan (in percentage)

Name of the Community	Education	Treatment	Purchase of land	marriage	farming & livestock	construction of house	day to day expenditure
Kattunaikan		10				20	70
Paniyar	3		10		15	10	62
Kurumar				10	20	20	50
Muthuvan					50	50	
Mannan							100

Source: Survey data

4.1.7 Quality of Life

4.1.7.1 Place of Living

The quality of life is determined by the dwelling place. The neighborhoods affect the way of life. Most of the tribal communities live in their own house (Table 4.9). This can be viewed as the success of the housing policies implemented since independence. In the Paniya Community, a small minority still live in relatives house.

Table 4.9 : Community and House Ownership

Name of the community * House ownership Cross-tabulation						
Name of the community		Own	House ownership			
			Parent	Relatives	Rental	Others
	Irula	94.64	1.79	1.79	1.79	0.00
	Kattunaikan	94.12	2.94	2.94	0.00	0.00
	Paniyar	89.23	0.00	7.69	1.54	1.54
	Kurumbas	95.83	0	1.87	2.3	0
	Kurumar	100	0	0	0	0
	Muthuvan	95	2.5	0	2.5	0
	Mannan	100	0	0	0	0

Source: Survey data

4.1.7.2 Type of House

Kurumbas, Kattunaikan and Muthuvan community lives mostly in semi pucca houses. Irula, Paniyar, Mannan and Kurumar lives in Kucha houses. Some families in the communities Kattunaikan, Paniyar and Muthuvan lives in unserviceble Kucha houses. Pucca houses are a very rare phenomenon. It can be seen in the Kurumar community (Table 4.10). This analysis clearly brings out the dilapidated condition of the tribal houses.

Table 4.10 : Community and Type of House

Name of the community * type of house Crosstabulation						
			type of house			
		Pacca	Semi pacca	Kucha	Servicable kucha	Unservicable kucha
Name of the community	Irula	1.79	37.5	48.2	8.9	3.57
	Kattunaikan	2.9	55.9	20.6	8.82	11.76
	Paniyar	0	40	47.69	1.5	10.77
	Kurumbas	0	86.96	8.70	4.35	0
	Kurumar	5.71	28.57	48.57	8.57	8.57
	Muthuvan	5	50	27.5	5	12.5
	Mannan	0	6.90	75.86	17.24	0

Source: Survey data

4.1.7.3 Sanitary facilities

The majority of the tribal community's lack proper sanitary facilities which hinders their health and hygiene. The only community that fares well in this category is Kattunaikan community and Kurumar community (Table 4.11).

Table 4.11: Name of the community and sanitary latrines

Name of the community * sanitary latrines Cross tabulation					
			Sanitary latrines		
		No latrine	Serviceable latrine	With roof,wall,door	Pucca latrine with water supply
Name of the community	Irula	55.56	18.52	25.93	0
	Kattunaikan	38.09	5.88	47.21	8.82
	Paniyar	60.00	13.85	26.15	0
	Kurumbas	54.54	18.18	27.27	0
	Kurumar	36.85	20	31.43	11.43
	Muthuvan	50	17.5	27.5	5
	Mannan	70	23.33	6.67	0

Source: Survey data

4.1.7.4 Source of Drinking water

Out of the total surveyed families, only 33 percent enjoys own piped connection in the house. A good number of families still depends on public well or stream, canals etc (Table 4.12). Safe drinking water is still a distant dream for the poor tribal families.

Table 4.12 : Name of the community and Drinking Water Cross tabulation

Name of the community * Drinking Water Cross tabulation						
			Drinking Water			
		house or piped connection	own well	public well or tap	stream , canal or river	rain water harvesting
Name of the community	Irula	16.36	1.82	63.64	18.18	0
	Kattunaikan	0	5.88	17.65	76.47	0
	Paniyar	6.35	0	87.30	6.35	0
	Kurumbas	0	4.35	17.39	78.26	0
	Kurumar	2.94	11.76	61.76	23.53	0
	Muthuvan	7.5	22.5	5	62.5	2.5
	Mannan	0	10	86.67	3.33	0

4.1.7.5 Main source of fuel for cooking

Wood is the main fuel used for cooking. Gas, as an alternate source, has failed to penetrate to the poor tribal families (Table 4.13). The main reason for this can be cited as poor transportation facilities.

Table 4.13 : Name of the community and Main fuel used for cooking**Crosstabulation**

Name of the community * Main fuel used for cooking Crosstabulation					
			Main fuel used for cooking		
		Wood	Kerosene	Gas	Electricity
Name of the community	Irula	100.00	0	0	0
	Kattunaikan	100	0	0	0
	Paniyar	96.9	0	3.16	0
	Kurumbas	100	0	0	0
	Kurumar	94.12	0	5.88	0
	Muthuvan	90	7.5	0	2.5
	Mannan	100	0	0	0

Source: Survey data

4.1.7.6 Standard of Living

The Standard of Living Index (SLI) is an index used to measure the quality of life based on various parameters. The parameters include the basic socio-economic factors such as the house ownership, condition of house, drinking water, cooking fuel, sanitation facilities etc., Majority of the tribal communities falls within the medium SLI. Low SLI is reported among the Communities of Irula, Paniyar, Kurumbas, Kurumar and Mannan (Table 4.14).

Table 4.14 : Correspondence Table: Community and SLI

Correspondence Table				
Name of the community	SLIFinal			
	low	medium	high	Active Margin
Irula	1	55	0	56
Kattunaikan	0	34	0	34
Paniyar	1	64	0	65
Kurumbas	3	21	0	24
Kurumar	5	28	2	35
Muthuvan	0	36	4	40
Mannan	1	29	0	30
Active Margin	11	267	6	284

Table 4.15 : Relation between Communities and SLI

Summary								
Dimension	Singular Value	Inertia	Chi Square	Sig.	Proportion of Inertia		Confidence Singular Value	
					Accounted for	Cumulative	Standard Deviation	Correlation
1	0.277	0.077			0.566	0.566	0.063	-0.034
2	0.243	0.059			0.434	1	0.07	
Total		0.136	38.487	.000a	1	1		

The model summary shows 13.6 variation. Out of the total 13.6 variation, the first-dimension accounts for 56.6 percent and the second-dimension accounts for 43.4 percent. The p-value shows significant relation between the Communities and their SLI (Table 4.15). The correspondence map also shows that the SLI of the tribal communities is in the medium range (Figure 4.9).

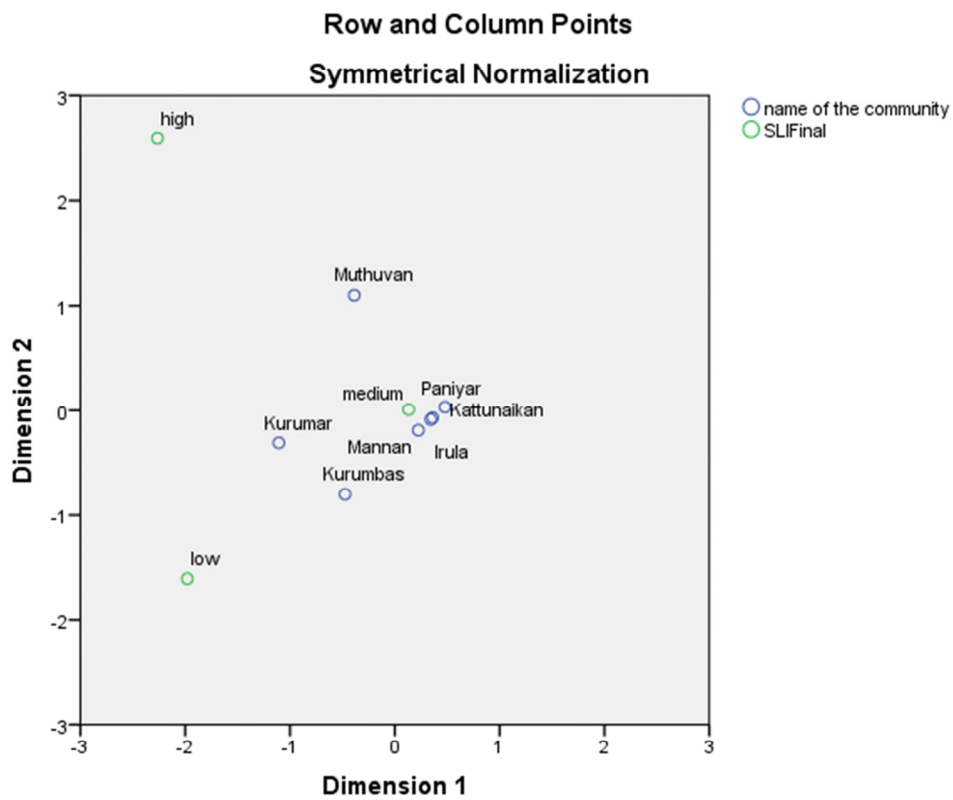


Figure 4.9 : Correspondence Chart: Community and SLI

The Null hypothesis that the SLI is same across the tribal sub-groups is tested with the help of Kruskal Wallis test. The results are shown in Figure 4.10. Based on the results, the null hypothesis is rejected.

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of SLI is the same across categories of name of the community.	Independent-Samples Kruskal-Wallis Test	.010	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Figure 4.10 : Kruskal Wallis test

4.1.8 Inequality and Poverty at the Household Level for tribal sub groups

The monthly PCI and PCE based on community is depicted in Table 4.16 and Figure 4.11. For all the social groups the difference between the average PCI and PCE is evident from the results. However, it is pertinent that the income levels are higher than the expenses for all the tribal groups. An inter-community ranking of the PCI and PCE levels is shown in Table 4.17. Mannan, Muthuvan and Kuruma are in the top three in terms of income as well as the spending. Paniya has the lowest PCE whereas the Kurumba has the lowest PCI.

Table 4.16 : Community-wise PCI and PCE

Name of the community	PCE	PCI
Irula	1489.38	2067.16
Kattunaikan	1465.99	2432.88
Paniyar	1280.45	2291.37
Kurumbas	1558.35	2055.31
Kurumar	1639.21	2797.73
Muthuvan	1739.18	2949.94
Mannan	1827.13	2851.92
Total	1531.29	2457.48

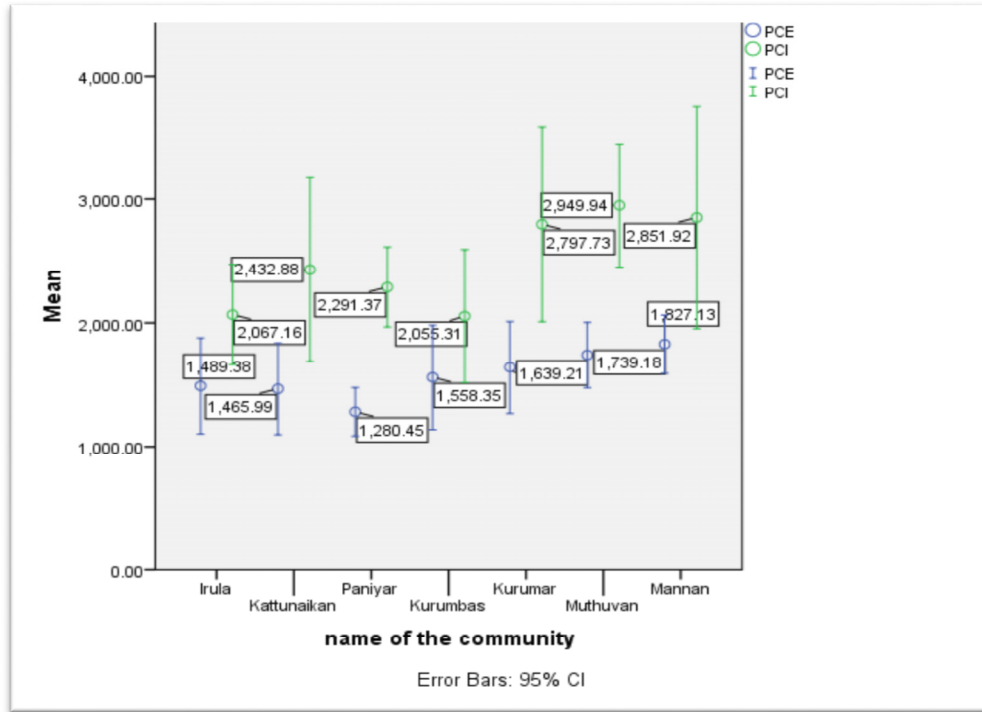


Figure 4.11 : Community-wise PCI and PCE

Table 4.17 : Community-wise ranking of PCI and PCE

PCE	PCI
Mannan	Muthuvan
Muthuvan	Mannan
Kurumar	Kurumar
Kurumbas	Kattunaikan
Irula	Paniyar
Kattunaikan	Irula
Paniyar	Kurumbas

A further evaluation of community wise ANOVA results in Table 4.18 shows insignificant values indicating towards lack of significant difference in the PCI and PCE between the tribal sub groups. There is no significant difference in the PCI and PCE based on community and hence we fail to reject the null hypothesis that PCI and PCE are same for all the tribal sub groups.

Table 4.18 : ANOVA Community-wise PCI and PCE

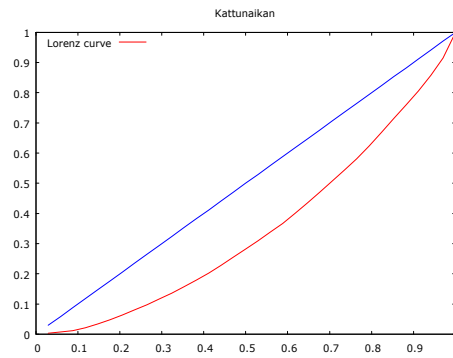
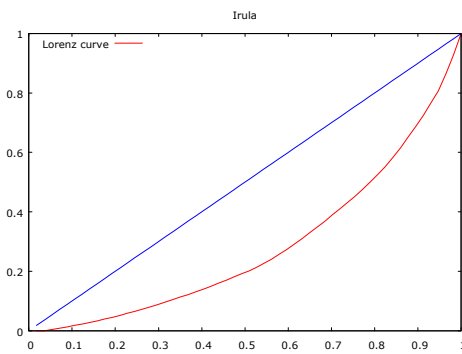
		Sum of Squares	df	Mean Square	F	Sig.
PCE	Between Groups	9527719.804	6	1587953.301	1.462	.191
	Within Groups	311714338.313	287	1086112.677		
	Total	321242058.117	293			
PCI	Between Groups	33700422.853	6	5616737.142	1.763	.107
	Within Groups	914260938.087	287	3185578.181		
	Total	947961360.940	293			

4.1.8.1 Community-wise Income Inequality

A community-wise comparison of the LC and GC are depicted in Figure 4.12 and Table 4.19. Among the tribal sub groups, Irular has the highest GC score and Kuruma has the lowest score. This implies that the inequality within the Irular group is the highest among all the tribal sub groups. The Paniya and Muthuvan have the second and third highest inequality score. However, in general, inequality for all the tribal sub groups is less than 0.50. LC for Irular is further from the line of equality and that of Kuruma is the closest one.

Table 4.19 : Community and Gini Coefficient

Community	Gini
Irula	0.434812
Kattunaikan	0.310281
Paniyar	0.379737
Kurumbas	0.344173
Kurumar	0.26152
Muthuvan	0.366257
Mannan	0.343541
Total	0.370468



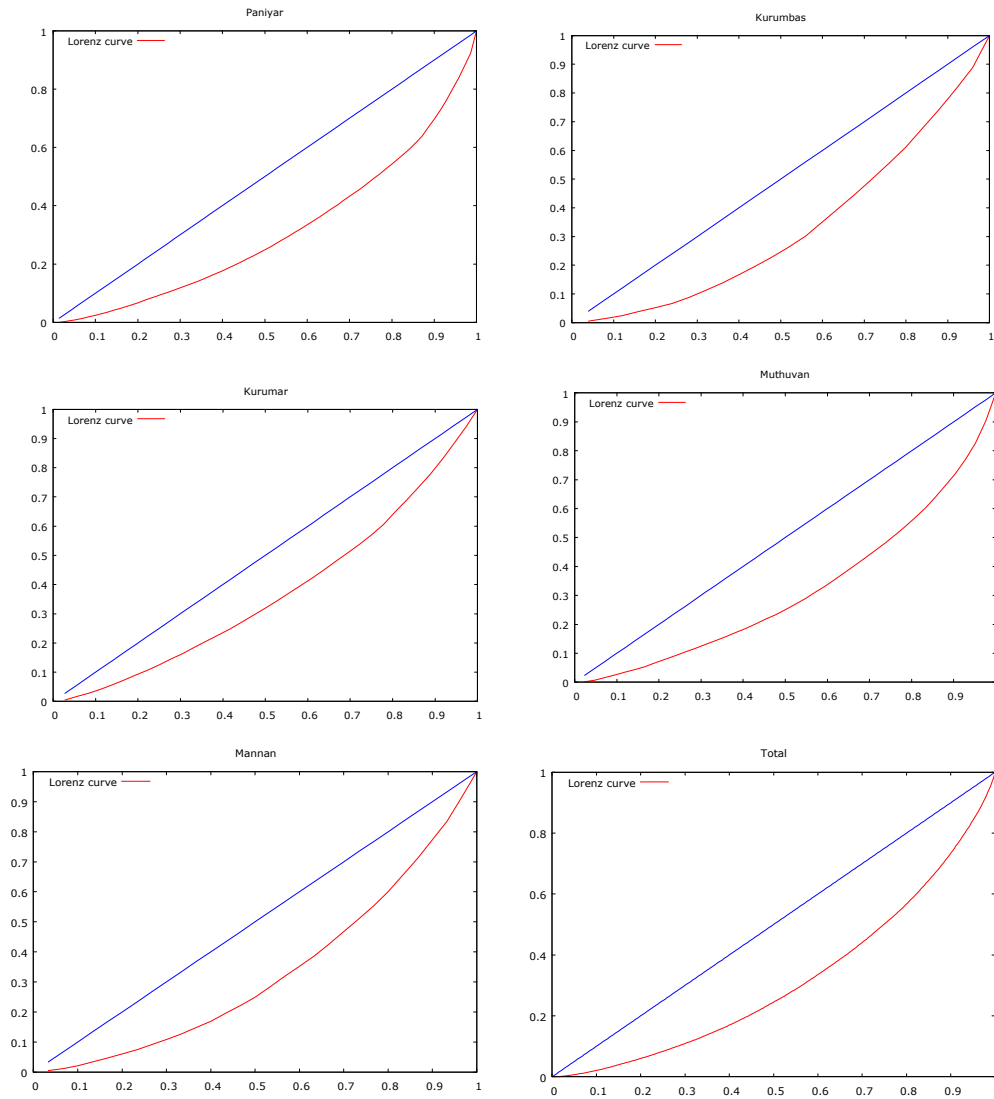
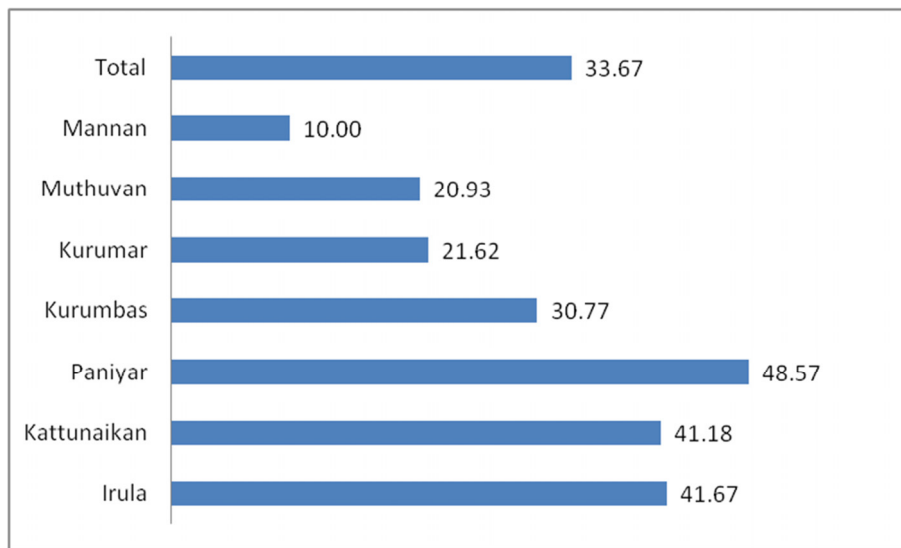


Figure 4.12 : Community and Lorenz Curve

4.1.8.2 Computing Poverty based on Tribal Sub Groups

The tribal sub group wise poverty is shown in Figure 4.13. The percentage of poor is lowest among the Mannan community and highest among the Paniyan group. More than 40 percent of the Paniyan, Kattunaikan and Irular are poor. 30.77 percent of Kurumbar households are poor, whereas the poverty level among the Muthuvan and Kuruman are 20.93 percent and 21.62 percent.

Figure 4.13 Community and Poverty



Source: Survey data

A further investigation into the relative poverty indicators is done using the FGT analysis, the results of which are shown in Tables 4.20 and 4.21. Among the poor, majority are from the Paniyan, Irular and Muthuvan community. The Paniyan, Irular and Kattunaikan community is the worst performers in terms of HCI as well as relative incidence and Muthuvan has improved its position. Kurumbar which was in the seventh in terms of percentage of poor and fourth in terms of HCI and relative incidence has moved to worse situation of second in terms of depth of poverty and first in terms of poverty severity. So even though in

terms of basic poverty indicators, Kurumbar are better off, their situation is worse in terms of poverty depth and severity. Here it is pertinent to mention that Kurumbar are the primitive tribal groups and despite the special assistance and schemes, their situation is still worse. The results clearly indicate an intra-tribal disparity in the poverty indicators when evaluated in detail and calls for considering the tribes not as a single entity while formulating development schemes and programmes. Based on the poverty depth and severity, Irular, Kurumbar, Paniyan and Kattunaikan are the worst performers and hence require special schemes and development assistance. Presently only the primitive tribal groups like the Kurumbar and Kattunaikan are in the ambit of the special schemes under PVTG. However, the situation calls for special development assistance for the other tribal sub groups like the Paniyan Irular.

Table 4.20 : Community-wise FGT

Community	non-poor	poor	Total	% Poor	Incidence of Poverty (HCI)	Rel.inci.	PGI (Poverty depth)	SPGI (Poverty severity)
Irula	35	25	60	20.00	0.42	1.24	0.1326	0.0647
Kattunaikan	20	14	34	11.33	0.41	1.22	0.1056	0.0378
Paniyar	36	34	70	23.33	0.49	1.44	0.1173	0.0456
Kurumbas	18	8	26	8.67	0.31	0.91	0.1295	0.0678
Kurumar	29	8	37	12.33	0.22	0.64	0.0600	0.0210
Muthuvan	34	9	43	14.33	0.21	0.62	0.0427	0.0205
Mannan	27	3	30	10.00	0.10	0.30	0.0159	0.0032
Total	199	101	300	100.00	0.34	1.00	0.0922	0.0394

Source: Survey data

Table 4.21 : Ranking of Districts based on FGT Scores

	% Poor	Incidence of Poverty (HCI)	Rel.inci.	PGI (Poverty depth)	SPGI (Poverty severity)
1	Paniyar	Paniyar	Paniyar	Irula	Kurumbas
2	Irula	Irula	Irula	Kurumbas	Irula
3	Muthuvan	Kattunaikan	Kattunaikan	Paniyar	Paniyar
4	Kurumar	Kurumbas	Kurumbas	Kattunaikan	Kattunaikan
5	Kattunaikan	Kurumar	Kurumar	Kurumar	Kurumar
6	Mannan	Muthuvan	Muthuvan	Muthuvan	Muthuvan
7	Kurumbas	Mannan	Mannan	Mannan	Mannan

Source: Survey data

The socio-economic analysis in Chapter 4 of the tribal communities shows a dismal picture. In spite of the various government policies, no substantial improvement in the living condition has been identified. There is also considerable variations in the socio-economic conditions and standard of living of the various tribal sub-communities and in this the Muthuvan and Kurumbar show good patterns. The movement of the tribal families from one place to another has led to total indebtedness and economic distress.

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Chapter 5

INTER DISTRICT ANALYSIS OF THE TRIBES IN KERALA

Chapter 4 explained the socio-economic profile of the tribes based on primary data and showed that tribes have very poor socio-economic profiles and this also has shown wide variation in a tribal sub-community level. Chapter 5 tries to focus on the district-wise differences in the development pattern of the Tribes in the selected districts of Kerala based on tribal concentration connecting with primary and secondary data. This is particularly significant as there are huge differences, if it is viewed, in district basis like accessibility, availability of plan funds, wage differences, social set up etc.

5.1 Community Composition

In the Palakkad district Irula and Kurumbas form the majority, whereas Kattunaikan, Paniyar and Kurumar constitute the majority in the Wayanad district. Muthuvan and Mannan were considered from Idukki district (Table 5.1).

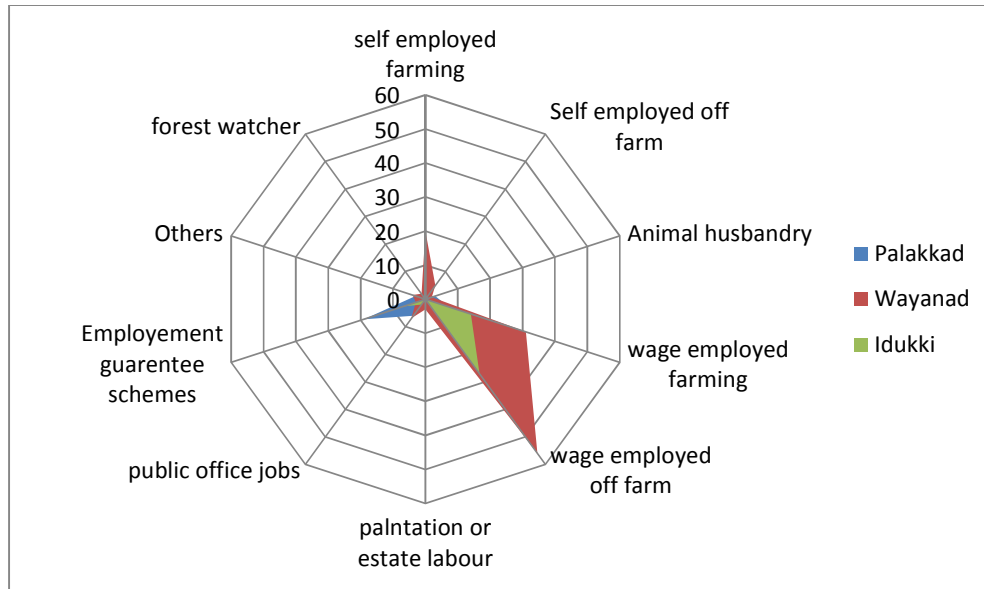
5.2 Activity status

The activity status is important to understand the income and livelihood of tribal families. The analysis show that majority of the tribes are employed in all the surveyed districts (Table 5.2). But the pertinent aspect is their wage and the type of employment. The tribes were working as casual labourers with meagre wages. This situation makes them in the poverty trap.

Table 5.1 : District and Activity

Name of the district * activity status Crosstabulation						
Count						
		activity status				
		Employed	Unemployed	Doing household chores	Unable to work	Unwilling to work
Name of the district	Palakkad	73	3	2	12	0
	Wayanad	98	3	7	29	1
	Idukki	63	0	3	6	0

Source: Survey data



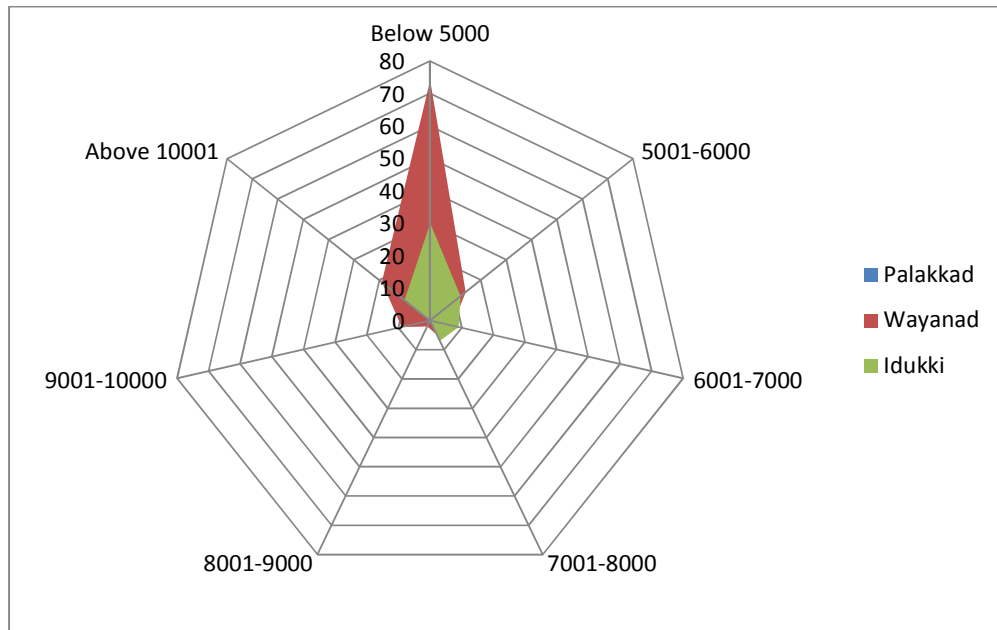
Source: Survey data

Figure 5.1 : Type of main employment in the Districts

The main employment of the majority of the tribes are in off farm (Figure 5.1) activity. Even though, reservation policies are favourable to the tribal population, not many are working Government sector.

5.3 Monthly income

The average monthly income of the tribal families in the three districts converges to below 5000 level (Figure 5.2). This analysis shows about the low standard of living among the tribal communities.



Source: Survey data

Figure 5.2 : Monthly income of the tribal families

5.4 House ownership

The majority of the tribal families own houses in their own name (Figure 5.3). But the area of the houses ranges from 600-700 sq feet and the houses lack proper infrastructure facilities. The houses are built using government support which clearly indicates the successful housing policies of the government (Figure 5.4)

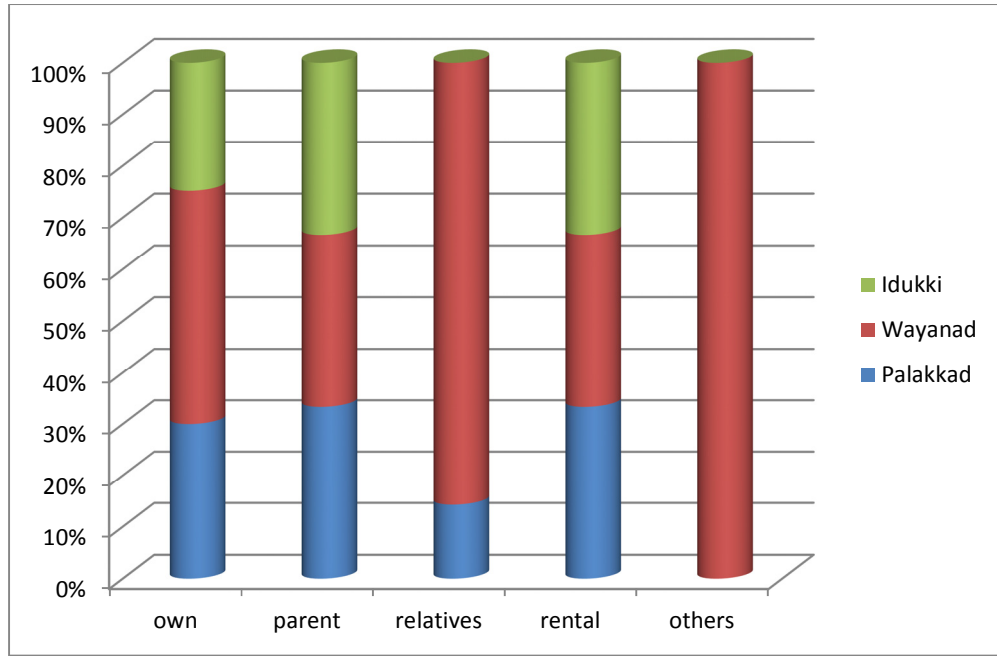
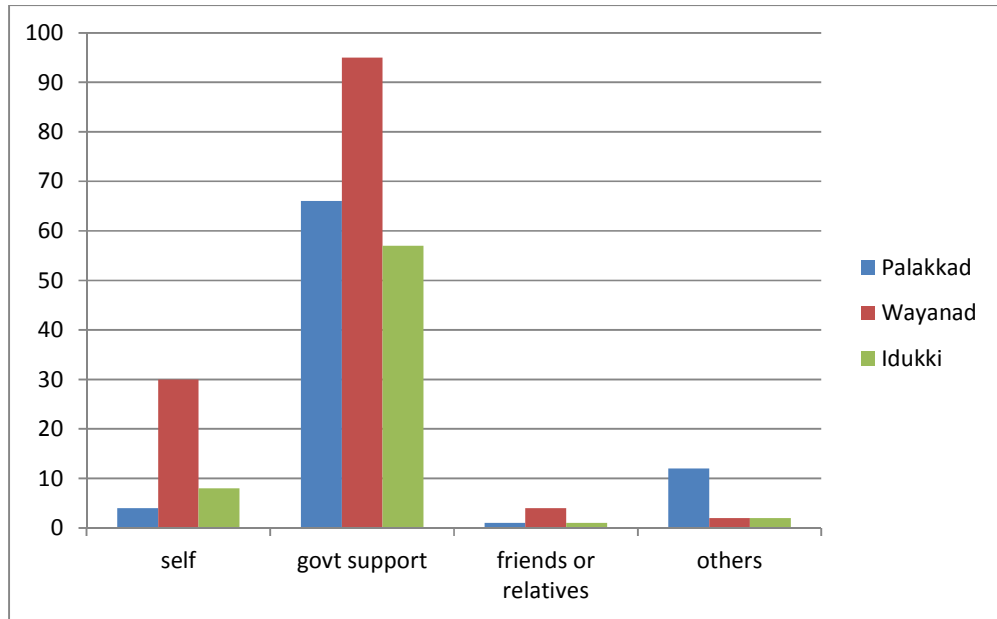


Figure 5.3 : House ownership

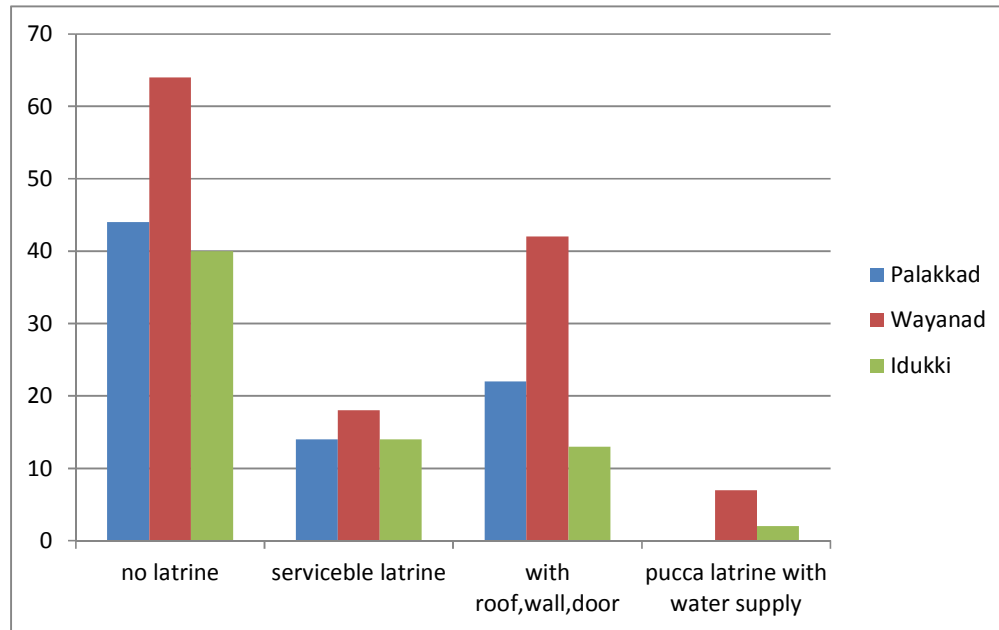


Source: Survey data

Figure 5.4 : Fund for construction of house

5.5 Availability of Sanitary Latrines

In the surveyed districts, the majority tribal families have no access to proper sanitation facilities (Figure 5.5). Health and Hygiene are neglected leading to high morbidity and mortality rates among the tribal people.

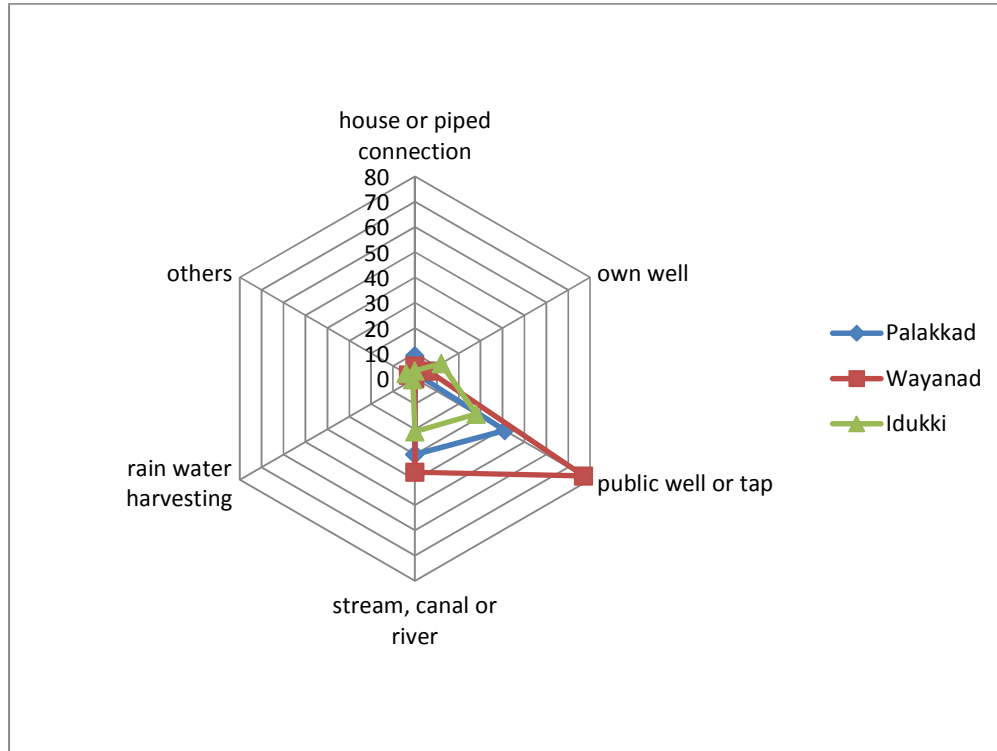


Source: Survey data

Figure 5.5 : Sanitation facilities in the surveyed Districts

5.6 Drinking water facilities in the Districts.

The tribal people rely completely on the public well or tap for their drinking purposes. Own well in every house is still a distant dream for the majority population (Figure 5.6). About 50-60 families depend on a single well. During the dry season they still depend on the waterways in distant places. Pure and safe drinking water provisions in every tribal families are a necessity that improves their health and hygiene.



Source: Survey data

Figure 5.6 : Drinking water facilities in the surveyed districts.

5.7 Main fuel used for cooking purposes

Wood has been remarkably the main fuel used by the tribal families (Figure 5.7). The other modes of fuel are inaccessible to the population. The deficiency of transport facilities hinders the distribution of gas to the families.

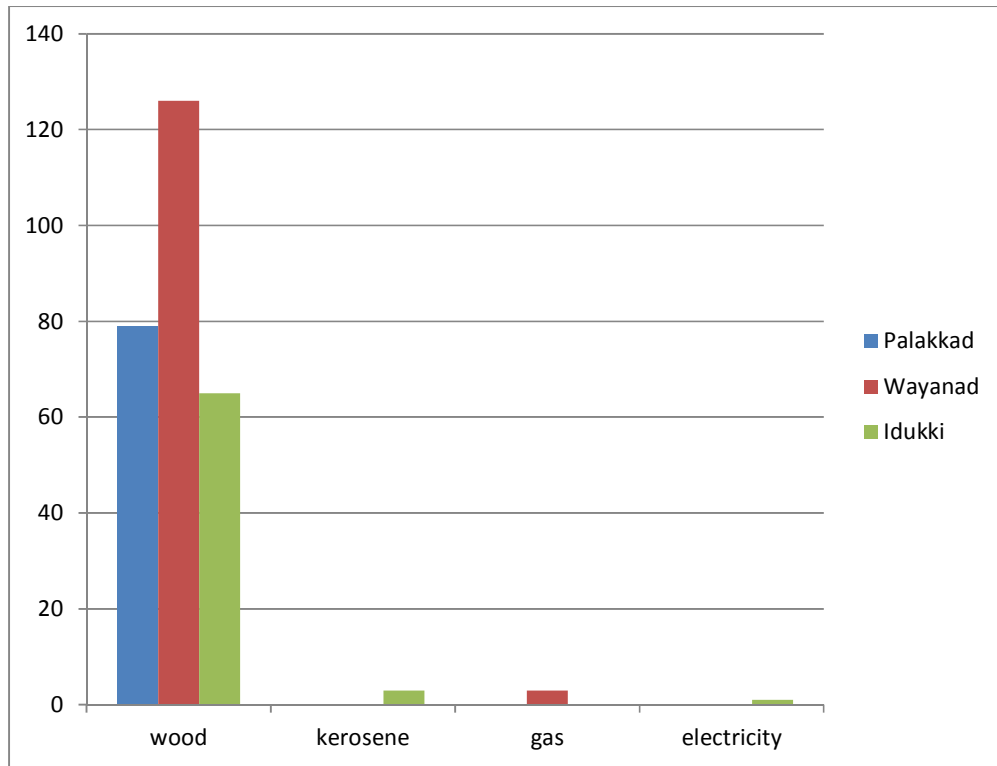
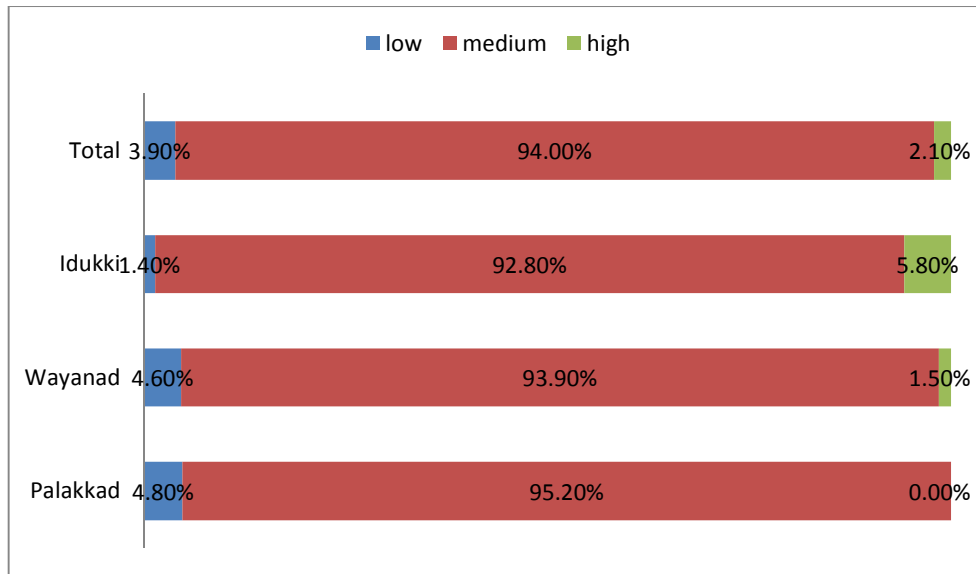


Figure 5.7 : Main cooking fuel used by the tribal families

5.8 District-wise Standard of Living

To evaluate the living standards of the tribal communities for the three districts, the Standard of Living Index (SLI) is worked out and the results are shown in Figure 5.8. The difference based on district seems to be minimal. However, those in high SLI are more in Idukki compared to other two districts and none of the households in Palakkad is in high SLI. Across the districts, more than 90 percent of the households are exhibiting medium level of living standards.



Source: Survey data

Figure 5.8 : District and SLI

The Null Hypothesis “Distribution of SLI is same across the three districts” is tested with the aid of Chi-Square test. The results show that there is no significant difference in SLI based on district and hence we fail to reject the null hypothesis (Table 5.3).

Table 5.2 : Chi-Square Tests: SLI and District

	Value	df	Asymp. Sig . (2-sided)
Pearson Chi-Square	7.833 ^a	4	.098
Likelihood Ratio	8.499	4	.075
Linear-by-Linear Association	4.988	1	.026
N of Valid Cases	284		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is 1.46.

For a better inference, the district-wise results for the SLI are evaluated using correspondence analysis. The correspondence chart and its summary is shown in Tables 5.4 and 5.5. Figure 5.9 depicts the Correspondence Chart. The results reconfirm the inferences obtained from the bar chart as the three districts are closer to the medium SLI point and none of the districts is near to low or high SLI. The inter-district comparison shows that the SLI is more at the medium levels. So there has been some visible changes in the standard of living due to the various development schemes, the changes have not been that much drastic as most of the households have not achieved high SLI levels which is a benchmark when one evaluates the overall household attributes and living standards of the people in Kerala.

Table 5.3 : Correspondence Table

Name of the district	SLI			
	low	Medium	high	Active Margin
Palakkad	4	80	0	84
Wayanad	6	123	2	131
Idukki	1	64	4	69
Active Margin	11	267	6	284

Table 5.4: Summary								
Dimension	Singular Value	Inertia	Chi Square	Sig.	Proportion of Inertia		Confidence Singular Value	
					Accounted for	Cumulative	Standard Deviation	Correlation
								2
1	.165	.027			.991	.991	.060	-.289
2	.016	.000			.009	1.000	.061	
Total		.028	7.833	.098 ^a	1.000	1.000		

a. 4 degrees of freedom

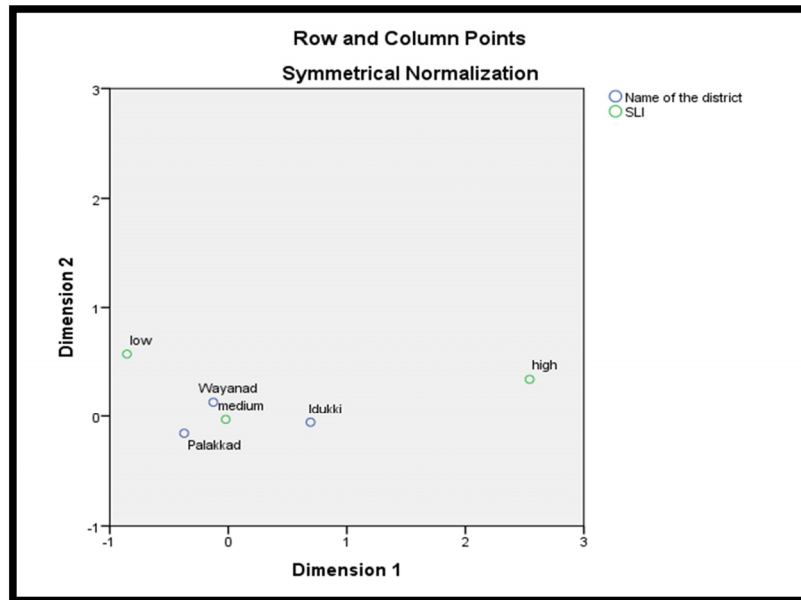
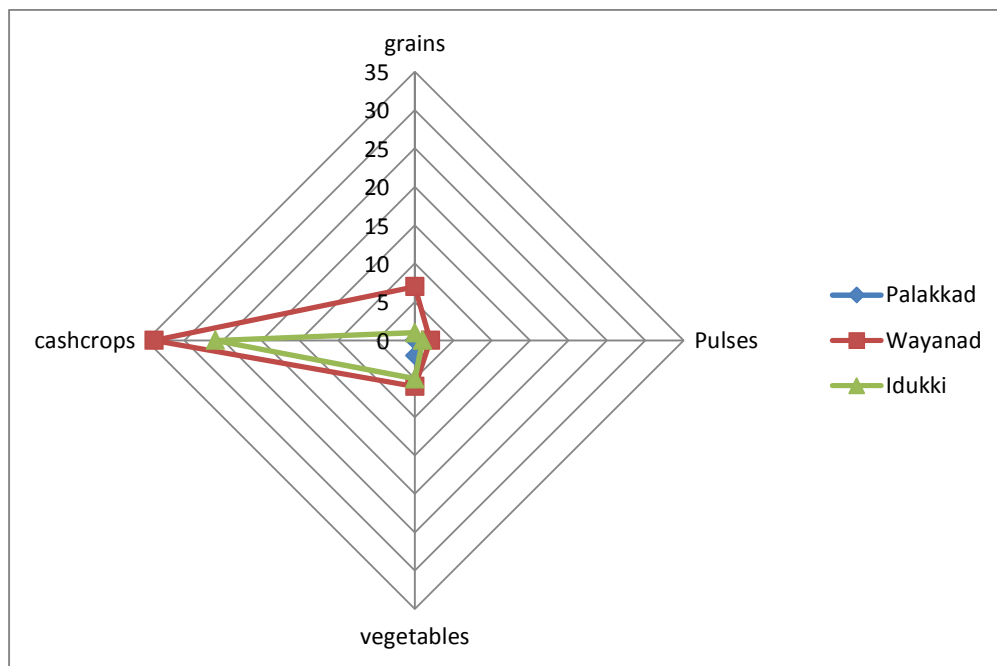


Figure 5.9 : Correspondence Chart: District and SLI

5.9 Main crops cultivated in the Districts

The survey results show that there is negligible cultivation in the Palakkad District. In the districts of Wayanad and Idukki the cultivation is oriented towards cash crops rather than food crops (Figure 5.10). Even though cash crops are cultivated, it does not fetch a good price to make a decent living for the families. The presence of middlemen damages the opportunities for a direct sale in the open market.



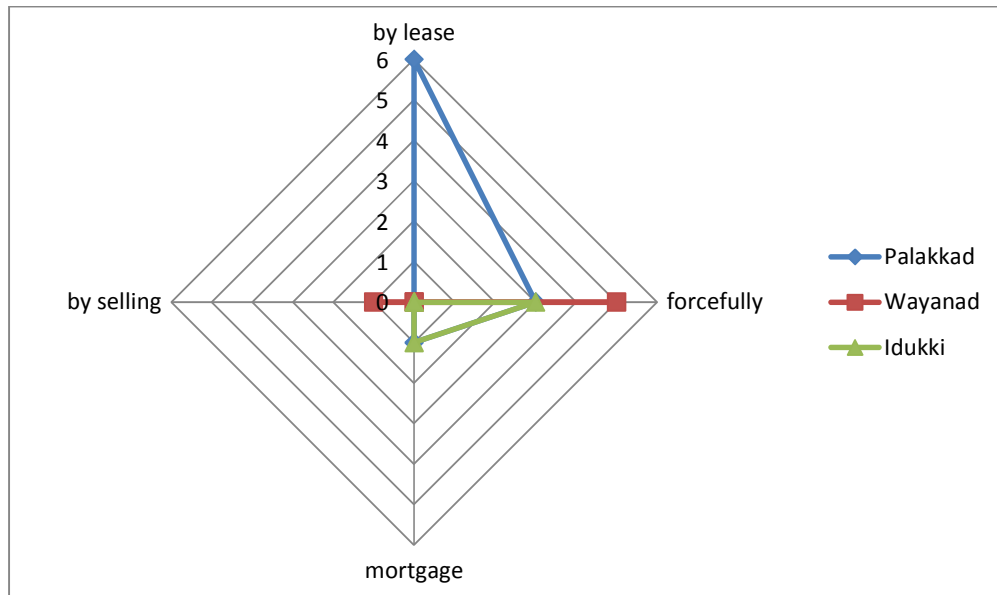
Source: Survey data

Figure 5.10 : Main crops cultivated in the Districts

5.10 Manner of Land alienation

The manner of land alienation in Palakkad district is forceful eviction and also by lease. But in Wayanad district most of the land eviction is forceful. In Idukki district the land alienation is reported to be by mortgage and forceful eviction (Figure 5.11).The land alienation cases lead to the disastrous

disappearance of agriculture from the tribal families. It led to re orientation towards the cultivation of cash crops and the transformation of tribes to casual wage labourers.

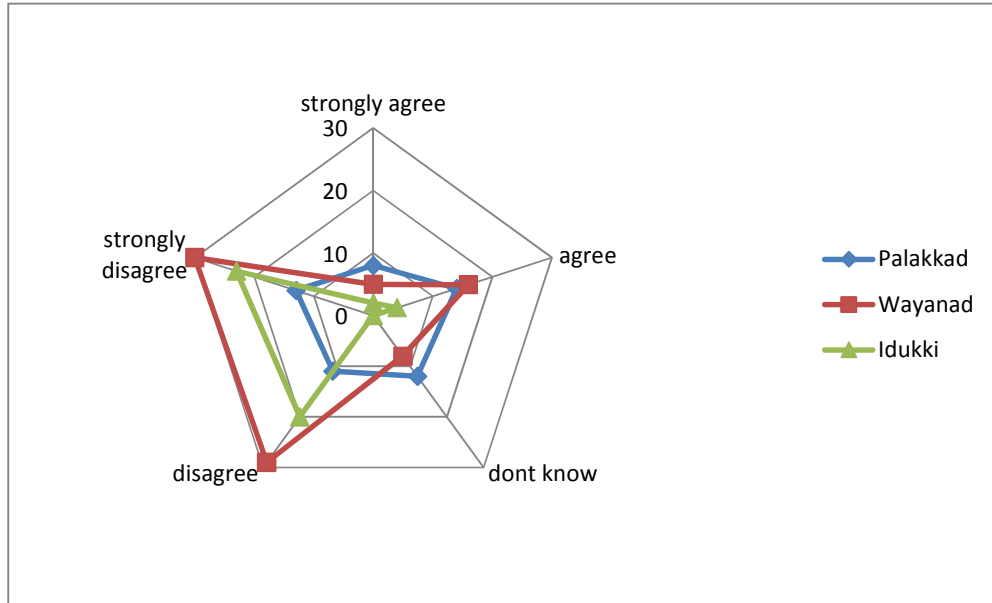


Source: Survey data

Figure 5.11: Manner of land alienation

5.11 Implementation of the Housing scheme in the Districts

In all the three districts the tribal families are totally disappointed with the implementation of the housing scheme (Figure 5.12). The government authorities fail to monitor the progress of the construction of the houses. Most of the houses do not possess the basic facilities for a decent living. Due to the paucity of funds, the construction of most of the houses are not fully completed

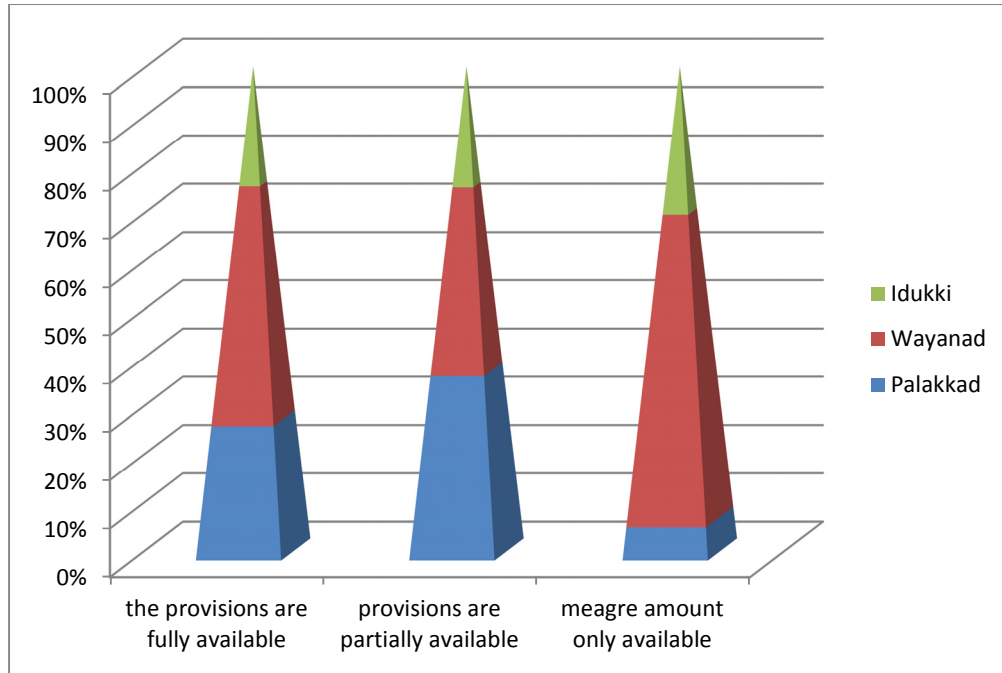


Source: Survey data

Figure 5.12 : Level of satisfaction of the families in the implementation of the housing scheme

5.12 Availability of food materials by PDS at ration shops.

In the Palakkad district, majority of the families had reported that the PDS provisions are only partially available. But in Wayanad District, the majority get only meager amounts of PDS in the ration shops. This is the case with regard to Idukki district also (Figure 5.13). In all the three districts, the tribal families collect their food supplements from the ration shops on a monthly basis (Figure 5.14). With regard to the quality of the provisions, Palakkad district is reported to supply bad quality food supplements compared to the other three districts (Figure 5.15).



Source: Survey data

Figure 5.13 : Nature of PDS availability in the districts.

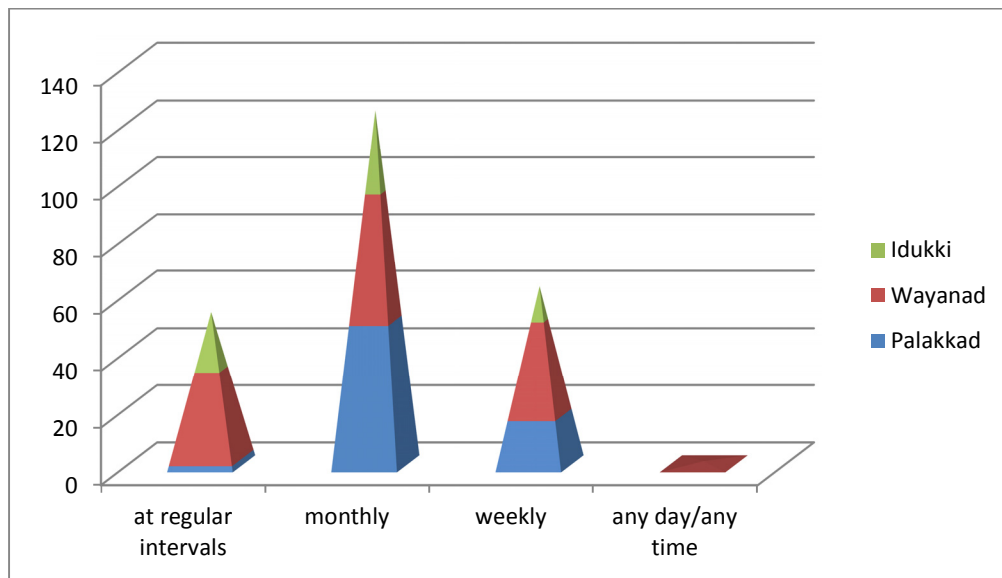
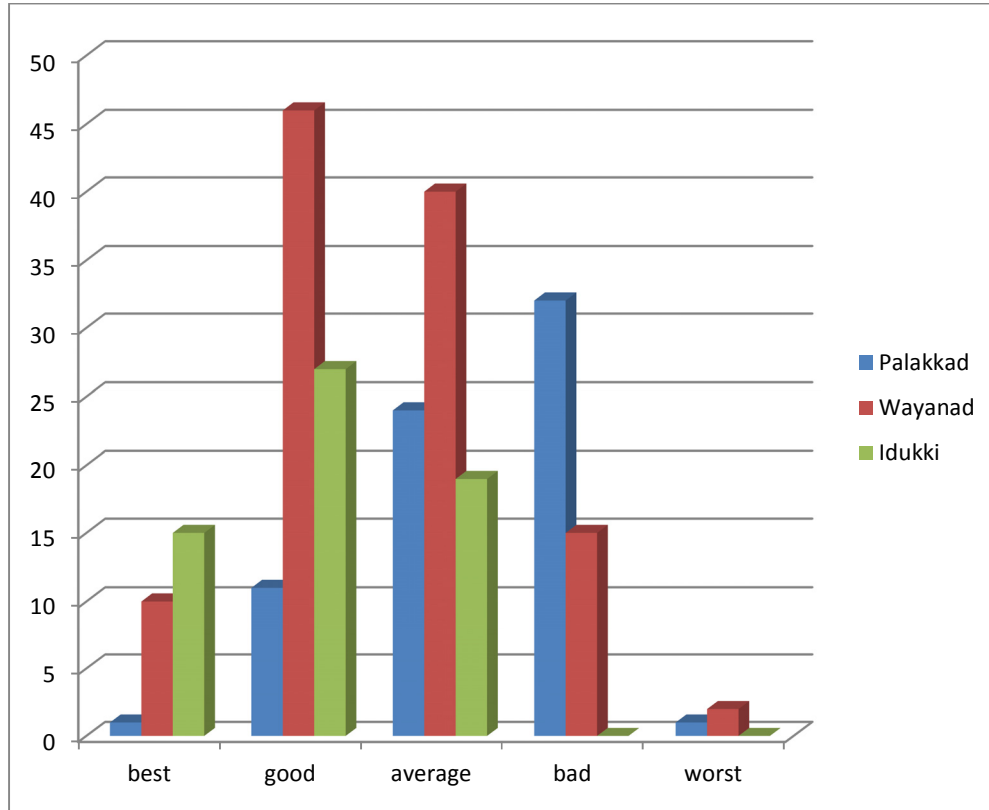


Figure 5.14 : Availability of PDS with regard to time period



Source: Survey data

Figure 5.15 : Quality of the PDS provisions

To conclude, the analysis reveals that the government needs to play a proactive role in the overall development of the tribal families. The tribal families in all the three districts entirely depends on governmental agencies and funds from government policies and programmes. So, there is an urgent need to reform and reorganize the government programmes and policies to cater to the needs and aspirations of the tribal families so that they earn and live with identity.

5.13 Index of Dissimilarity (D)

The Index of Dissimilarity is the most common measure of segregation. It measures the extent which one racial group is segregated from the other mutually exclusive group. The value of D represents the percentage of population that must move forward to have a uniform distribution of population. The value of D ranges from 0 to 100. The D is computed using Census data 2011.

$$D = \frac{1}{2} \sum_{i=1}^n \left| \frac{w_i}{W_T} - \frac{b_i}{B_T} \right|$$

Table 5.5 : The three sample districts together

Districts	St popn	Sc popn	Gen popn	wi/WT(ST)	bi/BT(Gen)	wi/WT- bi/BT	Absol Value
Wayanad	151443	32578	665977	0.5910432	0.14865233	0.442390875	0.44
Idukki	55815	145486	1053159	0.2178316	0.23507499	-0.01724336	0.01
Palakkad	48972	403833	2760962	0.1911252	0.61627268	-0.42514752	0.42
Sum	256230	581897	4480098				0.87
						value of D	0.435

Source: Population figures taken from District primary census abstract.

The value of D indicates that 43.5 percentage of ST population must integrate with the general population in order to overcome the dissimilarities in population arising due to segregation (Table 5.6).

Table 5.6 : Block panchayats in three districts based on the ST population

Wayanad	Block	Tot Popn	St popn(wi)	Gen popn (-ST)bi
	Mananthavady	260544	56335	204209
	Sulthan Bathery	290857	56040	234817
	Kalpetta	234439	35840	198599
	Sum	785840	148215	637625
Idukki	Devikulam	121577	13599	107978
	Idukki	124516	8738	115778
	Adimaly	126262	8589	117673
	Sum	372355	30926	341429
Palakkad	Attappadi	64318	27627	36691
	Chittur	162544	4411	158133
	Kollamkode	130862	5458	125404
	Sum	357724	37496	320228

Source: District primary census abstract 2011

Table 5.7 : Dissimilarity Indices

wi/WT	bi/BT	wi/WT-bi/BT	Abso Value	value of D	in %
0.38009	0.320265	0.05982469	0.059		
0.378099	0.368268	0.0098312	0.009		
0.241811	0.311467	-0.0696559	0.069		
			0.137	0.0685	6.85
0.439727	0.316253	0.12347393	0.123		
0.282545	0.339098	-0.0565529	0.056		
0.277727	0.344649	-0.066921	0.066		
			0.245	0.1225	12.25
0.736799	0.114578	0.62222085	0.622		
0.117639	0.493814	-0.3761746	0.376		
0.145562	0.391608	-0.2460463	0.246		
			1.244	0.622	62.2

Source: District primary census abstract 2011.

The value of D gives the impression that among the three districts, dissimilarities in population is the highest in Palakkad District. This could be interpreted that the degree of segregation is highest in Palakkad district. Thus, it could be deduced that the tribal population of Palakkad district do not integrate with the general population which led to their social exclusion (Tables 5.7 and 5.8).

5.14 District-wise Per-capita Income and expenditure

The mean score of income and expenditure on a per-capita basis is computed and shown district-wise in Table 5.9 and Figure 5.16. The overall average PCI is Rs. 2457 and PCE is Rs. 1531. The tribes in Idukki district have recorded highest per-capita income and expenditure scores. Wayanad tribes have the lowest PCE and tribes of Idukki have shown the lowest PCI at the household level. On an average for all the three districts, the income is more than the expenditure.

Table 5.8 : District and PCE and PCI

Name of the district	PCE	PCI
Palakkad	1498.82	2086.07
Wayanad	1429.14	2468.18
Idukki	1767.74	2886.69
Total	1531.29	2457.48

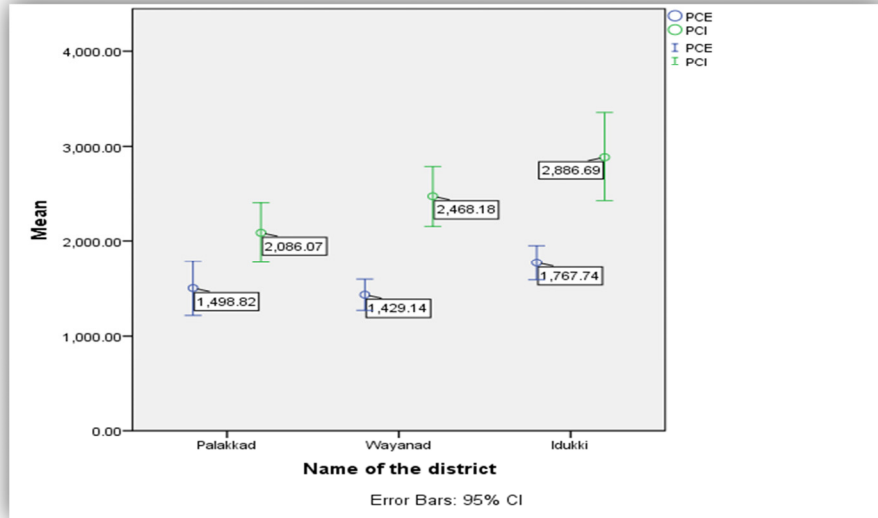


Figure 5.16 : District and PCE and PCI

To further evaluate district-wise difference in the PCI and PCE, ANOVA is done and results are shown in Table 5.10. The results for PCE are not significant, whereas for PCI the results are significant. The Duncan test results for income and expenditure are depicted in Tables 5.11 and 5.12. For PCE, Wayanad is in subset 1 and Idukki is in subset 2. Palakkad appears both in subset 1 and 2. The results for PCI are also similar with Idukki in subset 2 and Palakkad in subset 1. However, Wayanad finds its place in subset 1 and 2. While based on the ANOVA results, the hypothesis that the PCE levels are same across districts is retained, we fail to reject the null hypothesis that PCI is same across districts hinting towards a significant difference in average PCI based on districts.

Table 5.9 : ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
PCE	Between Groups	5489663.093	2	2744831.547	2.530	.081
	Within Groups	315752395.024	291	1085059.777		
	Total	321242058.117	293			
PCI	Between Groups	24958619.503	2	12479309.751	3.934	.021
	Within Groups	923002741.438	291	3171830.727		
	Total	947961360.940	293			

Table 5.10 : Duncan’s test PCE

Name of the district	N	Subset for alpha = 0.05	
		1	2
Wayanad	137	1429.1376	
Palakkad	86	1498.8183	1498.8183
Idukki	71		1767.7359
Sig.		.652	.083

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 90.877.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Table 5.11 : Duncan’s test PCI

Name of the district	N	Subset for alpha = 0.05	
		1	2
Wayanad	86	2086.0713	
Palakkad	137	2468.1791	2468.1791
Idukki	71		2886.6901
Sig.		.149	.114

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 90.877.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

5.15 District-wise Income Inequality

It has been identified that while there is a difference in the MPCII and MPCE levels based on district and community, the difference is not so alarming indicating that the tribal sub-groups have similar issues if taken as a unit. The difference, if any, within the community and district is evaluated using Gini Coefficient and Lorenz Curve. Interestingly, Idukki district which had the highest income and expenditure has the highest level of inequality in income distribution if their per-capita scores for the households are evaluated. The lowest level of inequality is for Palakkad district. However, the overall scores for the district-wise GC shows that the values are less than 0.50 for all the districts. Table 5.13 and Figure 5.17 are a clear depiction of the inequality indicators for the districts. It is evident that the LC for Idukki is further from the equality line and hence got the highest inequality.

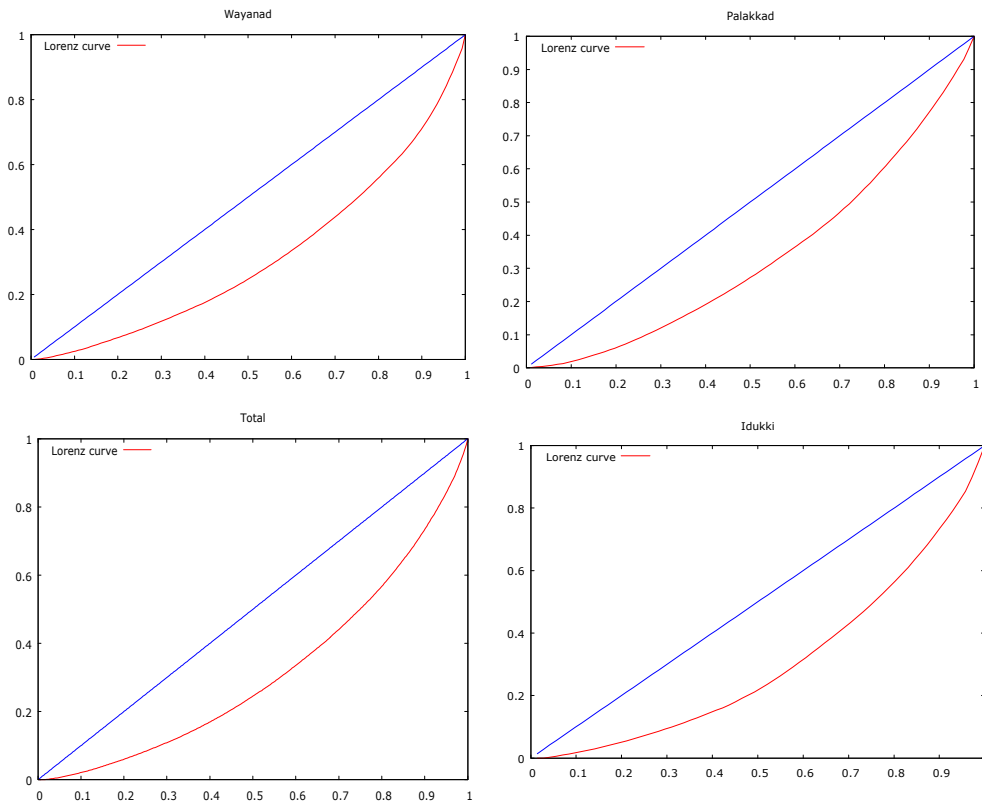


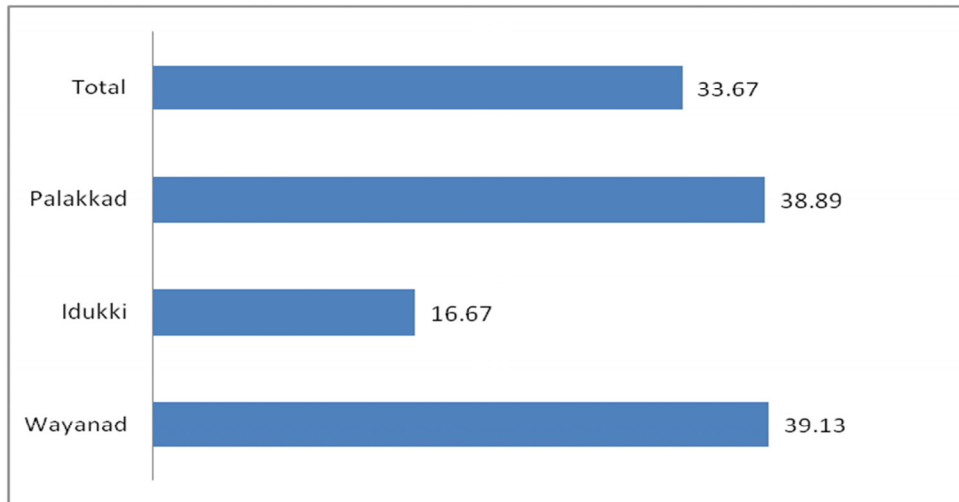
Figure 5.17 : District and Lorenz Curve

Table 5.12 : District and Gini Coefficient

District	Gini
Wayanad	0.372
Palakkad	0.330
Idukki	0.393
Total	0.370

5.16 District-wise Poverty Analysis

An inter-district comparison of poverty is depicted in Figure 5.18. The household level percentage of poor is 33.67 percent. Palakkad has 38.89 percent and Wayanad has 39.13 percent poor. The percentage of poor is the lowest in Idukki district with 16.67 percent.

**Figure 5.18 : Percentage of Poor Households based on District**

To further evaluate the relative poverty levels based on district, FGT analysis is performed and results are shown in Table 5.14 and Table 5.15. 101 out of 300 households are poor. Out of the poor households, majority are from the Wayanad district, followed by Palakkad and Idukki. The district wise order for the HCI and the relative incidence is also same. However, poverty depth and severity are higher for the Palakkad district and Wayanad comes to the second place in terms of these indicators. A district wise comparison shows that while Wayanad is the worst performer for the first two indicators of poverty, poverty depth and severity are the highest for Palakkad district. The results are indicative towards an inter-district disparity which was also visible via the field inference. Even though the tribal hubs of the Attappady region of Palakkad have been allocated a healthy sum of money for poverty alleviation and development, it is a sad reality that majority of these funds are either underutilized or not used for the desired purpose (Rajasenan, De Venanzi and Rajeev, 2017). This is further reiterated with the aid of primary data inference that the development schemes in the region have not been able to fetch the desired results.

Table 5.13 : District-wise FGT

District	non-poor	poor	Total	% Poor	Incidence of Poverty (HCI)	Rel.inci.	PGI (Poverty depth)	SPGI (Poverty severity)
Wayanad	84	54	138	46	0.3913	1.1623	0.0940	0.0333
Idukki	60	12	72	24	0.1667	0.4950	0.0322	0.0127
Palakkad	55	35	90	30	0.3889	1.1551	0.1374	0.0702
Total	199	101	300	100	0.3367	1.0000	0.0922	0.0394

Table 5.14 : Ranking of Districts based on FGT Scores

% Poor	Incidence of Poverty (HCI)	Rel.inci.	PGI (Poverty depth)	SPGI (Poverty severity)
Wayanad	Wayanad	Wayanad	Palakkad	Palakkad
Palakkad	Palakkad	Palakkad	Wayanad	Wayanad
Idukki	Idukki	Idukki	Idukki	Idukki

Chapter 5 gave clear picture of inter-district variations in most of the indicators for a decent living. It is visible with respect to income earning pattern, facilities like PDS and land utilizations. In the standard of living index also it shows considerable differences. The empirical evaluation with respect to index of discrimination explains high level of district-wise differences. It also shows empirical justification for income inequality and poverty severance differences when the three districts are compared in this direction.

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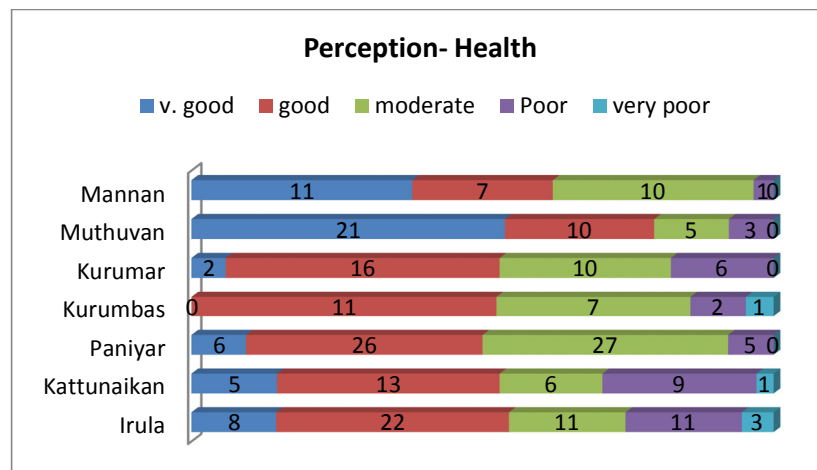
Chapter 6

PERCEPTION OF THE TRIBAL PEOPLE IN INCLUSIVE GROWTH

Chapter 5 analyzed the inter-district variations in tribal development pattern. Chapter 6 focuses on the perception of the tribes about the development issues concerning their livelihood and social life. This is important as the policies and programmes contemplated for tribal development should be designed according to their needs and aspirations. The success of the implementation of these policies should reflect in their standard of living in one way or other.

6.1 Perception regarding Health

The Muthuvan community considers their health in a very good condition. Poor health condition is perceived by the Kattunaikan and Kurumar community. Very poor health conditions can be noted among the Irula, Kurumbas and the Kattunaikan community (Figure 6.1).

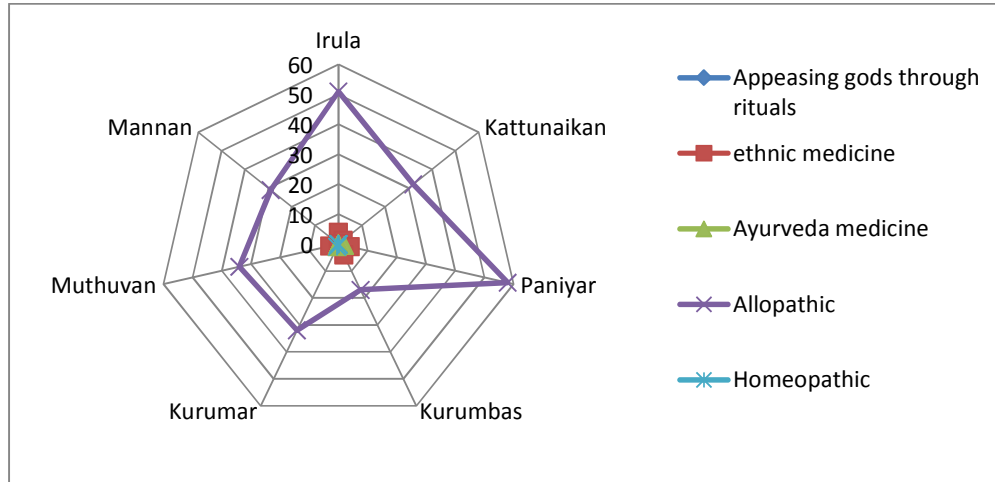


Source: Survey data

Figure 6.1 : Perception regarding health conditions

6.1.1 Preference towards different medical systems

The majority of the tribal population considers allopathic as the best medicare system. A negligible population also favours ethnic medicine and homeopathy (Figure 6.2).



Source: Survey data

Figure 6.2 : Preference- medical system

6.1.2 Reasons for unavailing health care

Financial incapability and remoteness are the reasons cited for unavailing health care facilities in the tribal settlements (Figure 6.3). The income they receive from their employment does not suffice to meet their short term health emergencies. Most of the tribal settlements are situated in the interior areas and they face difficulties in transportation, which contributes significantly to negligence in medical aid.

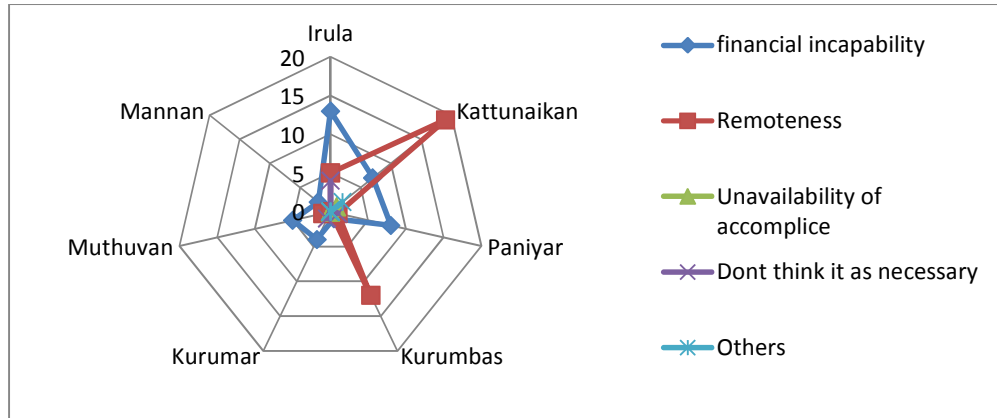
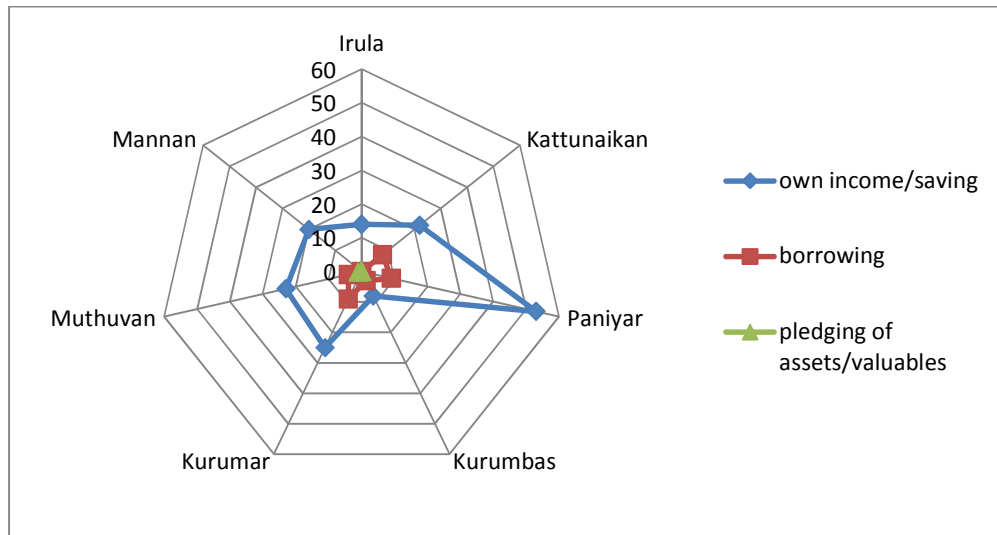


Figure 6.3 : Reasons for unavailing health care

6.1.3 Source of financing health care expenditure

The usual source of financing health care among the tribal communities is their own income. Some of the tribal families have also resorted to borrowing in case of huge expenditure and they also find money from pledging their valuables (Figure 6.4).



Source: Survey data

Figure 6.4 ; Source of finance-Health

6.2 Benefits in residing in a segregated region based on factor analysis

For the purpose of identifying the factors that the tribal population considers as the benefits residing in a segregated area, the Factor analysis method has been employed. The respondents were asked thirteen questions on a five point scale strongly agree to strongly disagree. The Kaiser-Meyer-Olkin measures sample adequacy. In this factor analysis KMO measure is .785 above the minimum score of 0.60 so that it is satisfactory to proceed the analysis (Table 6.1) . It also shows that the Barlett's test is significant.

Table 6.1 : KMO and Bartlett's Test- Reliability statistics- Benefits

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.785
Bartlett's Test of Sphericity	Approx. Chi-Square	672.143
	df	78
	Sig.	.000

The statements that have recorded above 0.50 loadings are 'comfortable neighborhood', 'majority of my community/caste belongs here', 'easy access to the workplace', 'can maintain good network/strength', 'availability of common amenities', 'staying here is the best option', 'security for the members' and 'political strength' (Table 6.2). These statements are considered as the benefits to live in a segregated area by the tribal population. The tribal population would like to live in area where they are in majority. The statement 'easy access to the workplace' indicates that most of them tries to find labour only in the nearby areas. They do not go out and search for job. If they don't get job in off seasons, they remain unemployed.

Table 6.2 : Communalities

	Initial	Extraction
Comfortable neighbourhood	1.000	.590
Majority of my community/caste belongs here	1.000	.669
Easy access to the workplace	1.000	.703
Access to govt schemes if together	1.000	.275
My friends/relatives/parents live here	1.000	.448
Can maintain good network/strength	1.000	.639
Availability of common amenities	1.000	.617
Can attend social/community functions	1.000	.527
Staying here is the best option	1.000	.747
Build community/caste strength	1.000	.384
Security for the members	1.000	.772
Political strength	1.000	.684
Culture and tradition can be protected	1.000	.523

Extraction Method: Principal Component Analysis.

The total variance is explained by four factors out of the thirteen factors (Table 6.3). It accounts for 58.30 percent of variation. The first factor explains 31.72 percent of variation, the second factor explains 9.54 percent of variation, the third factor explains 9.24 percent of variation and the fourth factor 7.79 percent of variation.

Table 6.3 : Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.124	31.725	31.725	4.124	31.725	31.725
2	1.240	9.541	41.266	1.240	9.541	41.266
3	1.201	9.241	50.507	1.201	9.241	50.507
4	1.013	7.795	58.302	1.013	7.795	58.302
5	.914	7.032	65.334			
6	.845	6.503	71.837			
7	.827	6.359	78.196			
8	.690	5.306	83.502			
9	.635	4.882	88.384			
10	.584	4.493	92.877			
11	.407	3.127	96.004			
12	.295	2.269	98.273			
13	.225	1.727	100.000			

Extraction Method: Principal Component Analysis.

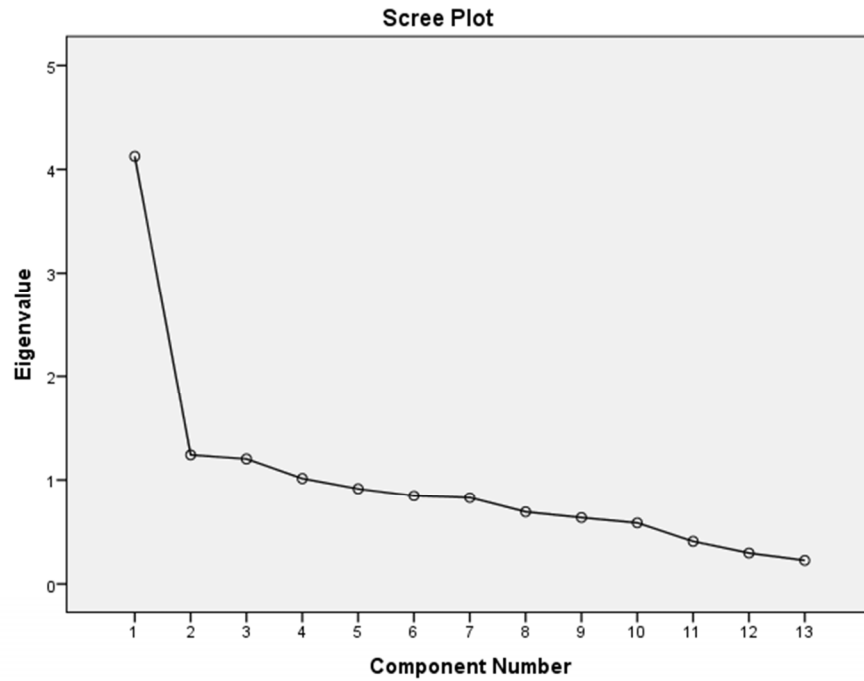


Figure 6.5 : Scree plot diagram

The factors that have been identified with above 0.50 loadings in the first instance are:- 'comfortable neighborhood,' can maintain good network/strength, 'availability of common amenities,' staying here is the best option,' security for the members,' political strength,' culture and tradition can be protected'. In the second extraction, 'easy access to the workplace', is the only significant factor. In the third segment, majority of my community/caste belongs here' is the significant factor (Table 6.4).

Table 6.4 : Component Matrix^a

	Component			
	1	2	3	4
Comfortable neighborhood	.613	.442	.130	-.037
majority of my community/caste belongs here	.310	.113	.190	.724
easy access to the workplace	.173	.596	-.471	.309
access to govt schemes if together	.351	-.305	-.090	.225
my friends/relatives/parents live here	.509	.165	.346	-.205
can maintain good network/strength	.755	.194	.001	-.179
availability of common amenities	.599	-.504	-.054	.047
can attend social/community functions	.472	.061	.497	.232
staying here is the best option	.687	.150	-.501	-.040
build community/caste strength	.369	.203	.151	-.429
security for the members	.723	-.230	-.427	-.120
political strength	.728	-.380	-.009	.099
culture and tradition can be protected	.655	.007	.304	-.048
Extraction Method: Principal Component Analysis.				
a. 4 components extracted.				

6.3 Problems faced by the respondents in residing in a segregated region based on factor analysis.

For the purpose of identifying the problems that the tribal population face when lives in a segregated area, the Factor analysis method has been employed. The respondents were asked eleven questions on a five point scale strongly agree to strongly disagree. The Kaiser-Meyer-Olkin measures sample adequacy. In this

factor analysis KMO measure is 0.773 above the minimum score of 0.60 so that it is satisfactory to proceed the analysis (Table 6.5). It also shows that the Bartlett's test is significant.

Table 6.5 : KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.773
Bartlett's Test of Sphericity	Approx. Chi-Square	364.961
	Df	45
	Sig.	.000

The significant factors identified were ' unfriendly attitude of my community members', 'residing here will hinder new avenues for my 'income and livelihood', ' access to education is difficult' and ' dropout increases due to residing here' (Table 6.6).

Table 6.6 : Communalities

	Initial	Extraction
lack of basic amenities	1.000	.460
discrimination by others as i am residing here	1.000	.464
discrimination due to caste/community	1.000	.293
denial of public amenities	1.000	.249
denial of service amenities like loan/bank	1.000	.523
unfriendly attitude of my community members	1.000	.702
residing here will hinder new avenues for my income and livelihood	1.000	.551
inaccessibility of healthcare options	1.000	.475
access to education is difficult	1.000	.547
dropout increases due to residing here	1.000	.697
Extraction Method: Principal Component Analysis.		

The total variance is explained by three factors. The first factor explains 27.36 percent of variation followed by 11.77 and 10.47 respectively by the second and third factors (Table 6.7). As shown in the scree plot most of the variation is explained by a single factor (Figure 6.6).

Table 6.7 : Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.736	27.365	27.365	2.736	27.365	27.365
2	1.178	11.779	39.144	1.178	11.779	39.144
3	1.048	10.476	49.619	1.048	10.476	49.619
4	.977	9.773	59.392			
5	.882	8.818	68.210			
6	.842	8.418	76.629			
7	.787	7.875	84.504			
8	.615	6.145	90.649			
9	.558	5.581	96.230			
10	.377	3.770	100.000			

Extraction Method: Principal Component Analysis.

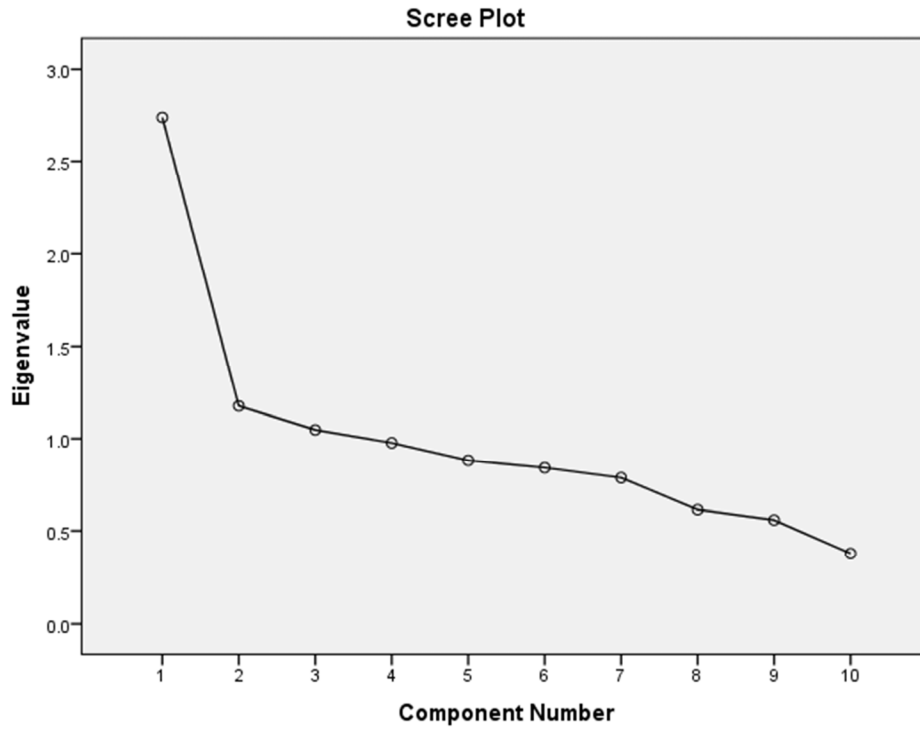


Figure 6.6 : Scree Plot

In the initial extraction, the significant factors are 'denial of service amenities like loan/bank', 'residing here will hinder new avenues for my income and livelihood', 'access to education is difficult', ' dropout increases due to residing here'. In the second instance, the factor is ' lack of basic amenities'. In the third segment, the significant factor is 'unfriendly attitude of my community members' (Table 6.8).

Table 6.8 : Component Matrixa

	Component		
	1	2	3
Lack of basic amenities	.284	.614	-.055
Discrimination by others as i am residing here	.414	-.432	-.324
Discrimination due to caste/community	.368	-.383	-.103
Denial of public amenities	.283	.299	.282
Denial of service amenities like loan/bank	.627	-.324	.161
Unfriendly attitude of my community members	.159	.004	.822
Residing here will hinder new avenues for my income and livelihood	.700	-.114	.219
Inaccessibility of healthcare options	.449	.455	-.258
Access to education is difficult	.682	.230	-.172
Dropout increases due to residing here	.833	-.021	-.053
Extraction Method: Principal Component Analysis.			
a. 3 components extracted.			

6.4 Perception regarding movements, political freedom, social coercion and gender

In order to identify the perception of the tribal population regarding movements, political freedom, social coercion and gender, the factor analysis method has been employed. The respondents were asked fifteen questions on a five point scale strongly agree to strongly disagree. The Kaiser-Meyer-Olkin

measures sample adequacy. In this factor analysis KMO measure is .794 above the minimum score of 0.60 so that it is satisfactory to proceed the analysis (Table 6.9). It also shows that the Bartlett's test is significant.

Table 6.9 : KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.794
Bartlett's Test of Sphericity	Approx. Chi-Square	1464.455
	df	105
	Sig.	.000

The significant factors identified were :- ' used to vote for the candidate whom i choose the best', 'there is full freedom to express my views in any public space', ' there is full freedom to move across any area', ' fear nobody for doing any type of employment', ' never experience crime and violence against my community', ' no threat under political terror', ' experience no discrimination and violence from police/officials/non community member', ' women are treated with respect in our community', ' women are allowed to work and educate as they desires', ' women have full freedom to voice their views in the family' and ' believe in any religion as i please' (Table 6.10).

Table 6.10 : Communalities

	Initial	Extraction
Used to vote for the candidate whom i choose the best	1.000	.787
There is full freedom to express my views in any public space	1.000	.720
There is full freedom to move across any area	1.000	.637
There is full freedom to own any property	1.000	.316
Fear nobody for doing any type of employment	1.000	.735
Never experience crime and violence against my community	1.000	.669
No threat under political terror	1.000	.723
Good tolerance towards immigrants	1.000	.382
Experience no discrimination and violence from police/officials/non community member	1.000	.671
Women are treated with respect in our community	1.000	.764
Women are allowed to work and educate as they desires	1.000	.600
Women have full freedom to voice their views in the family	1.000	.733
Believe in any religion as i please	1.000	.652
Strong community network to protect in case of insecurity	1.000	.308
Strong political affiliation and have strong political network	1.000	.497

Extraction Method: Principal Component Analysis.

The total variation is explained by four factors i.e., 61.29. Out of this, the first factor explains 29.40, the second factor 14.33, the third factor 10.53 and the fourth factor 7.02 (Table 6.11).

Table 6.11 : Total variance explained.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.411	29.406	29.406	4.411	29.406	29.406
2	2.150	14.333	43.739	2.150	14.333	43.739
3	1.580	10.530	54.270	1.580	10.530	54.270
4	1.054	7.028	61.298	1.054	7.028	61.298
5	.935	6.231	67.528			
6	.779	5.190	72.718			
7	.704	4.695	77.414			
8	.613	4.083	81.497			
9	.595	3.967	85.464			
10	.508	3.387	88.851			
11	.471	3.137	91.988			
12	.398	2.655	94.643			
13	.288	1.918	96.561			
14	.266	1.774	98.335			
15	.250	1.665	100.000			

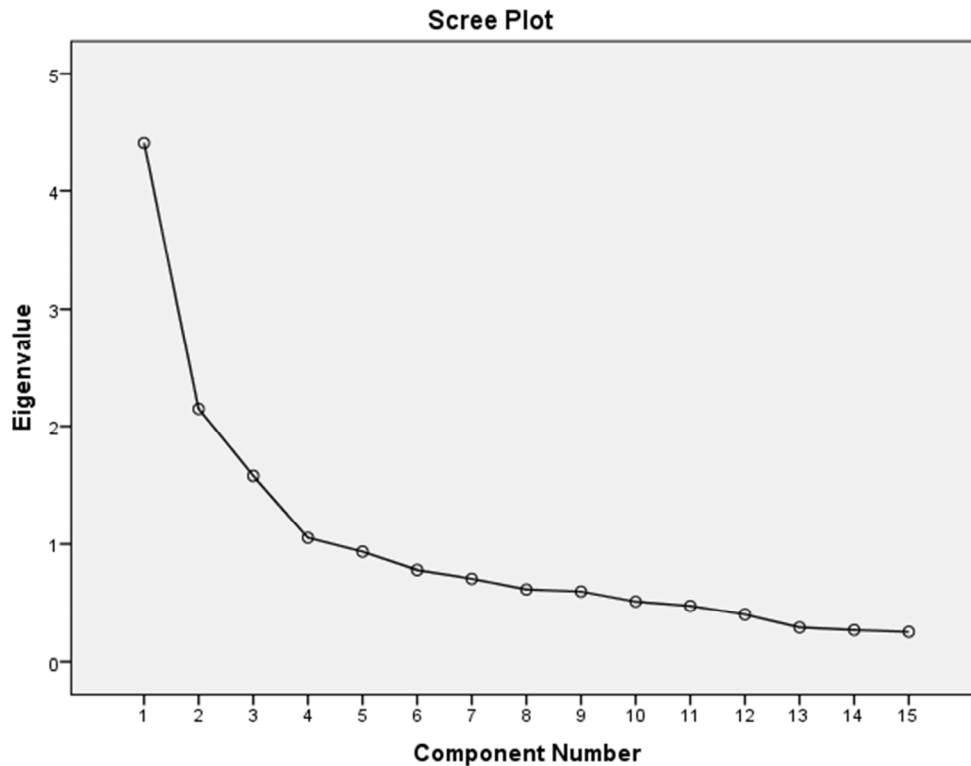


Figure 6.7 : Scree Plot

The significant factors in the first component are 'women have full freedom to voice their views in the family, fear nobody for doing any type of employment, believe in any religion as they please, women are allowed to work and educate as they desires, there is full freedom to move across any area, strong political affiliation and have strong political network, good tolerance towards immigrants'. In the second component, the factors are 'no threat under political terror', 'never experience crime and violence against my community', 'experience no discrimination and violence from police/officials/non-community member'. The factors in the third component are, 'used to vote for the candidate whom i choose the best', 'there is full freedom to express my views in any public space'. In the last component the significant factor is 'women are treated with respect in our community' (Table 6.12).

Table 6.12 : Component Matrix

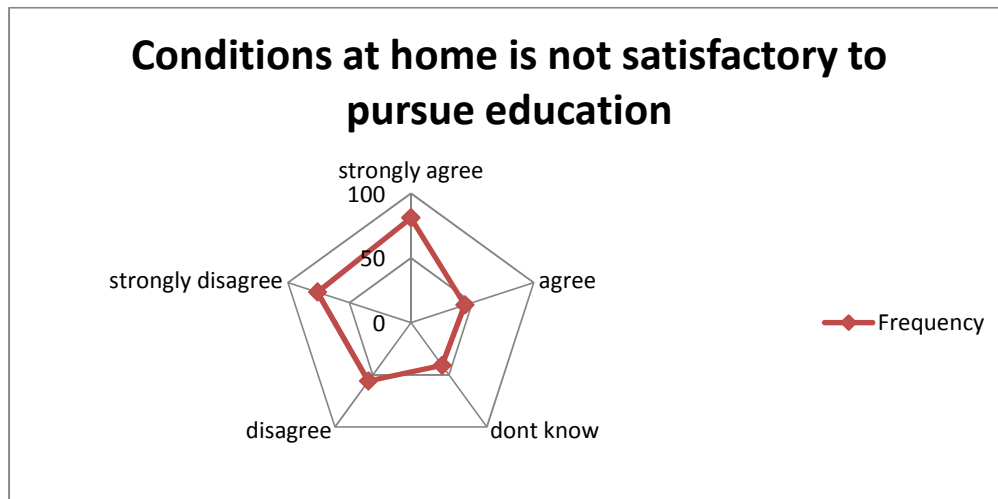
	Component			
	1	2	3	4
women have full freedom to voice their views in the family	.797	-.212	-.182	.139
fear nobody for doing any type of employment	.788	-.071	-.076	-.321
believe in any religion as i please	.761	-.150	-.226	-.015
women are allowed to work and educate as they desires	.709	-.158	-.141	.231
there is full freedom to move across any area	.648	-.151	.045	-.438
strong political affiliation and have strong political network	.567	.414	-.069	-.019
good tolerance towards immigrants	.551	.210	-.183	.014
strong community network to protect in case of insecurity	.497	.056	-.232	-.057
there is full freedom to own any property	.416	-.083	.339	-.144
no threat under political terror	.232	.816	-.031	-.038
never experience crime and violence against my community	.171	.785	.152	.015
experience no discrimination and violence from police/officials/non community member	.192	.598	.495	.178
used to vote for the candidate whom i choose the best	.273	-.326	.744	.229
there is full freedom to express my views in any public space	.531	-.235	.619	.001
women are treated with respect in our community	.361	-.055	-.233	.759

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

6.5 Perception of the tribal people - Education

The analysis of the survey data concludes that most of the respondents strongly agree that their conditions at home is not satisfactory to pursue education. In certain colonies, some of them strongly disagrees with this condition (Figure 6.8). The increase in the dropout rates among tribal children also points to the existence of unsatisfactory conditions at home. The conditions include consumption of alcohol, low earnings of the parents, existence of child labour, medical emergencies etc. The authorities have failed to notice this situation in most of the colonies.

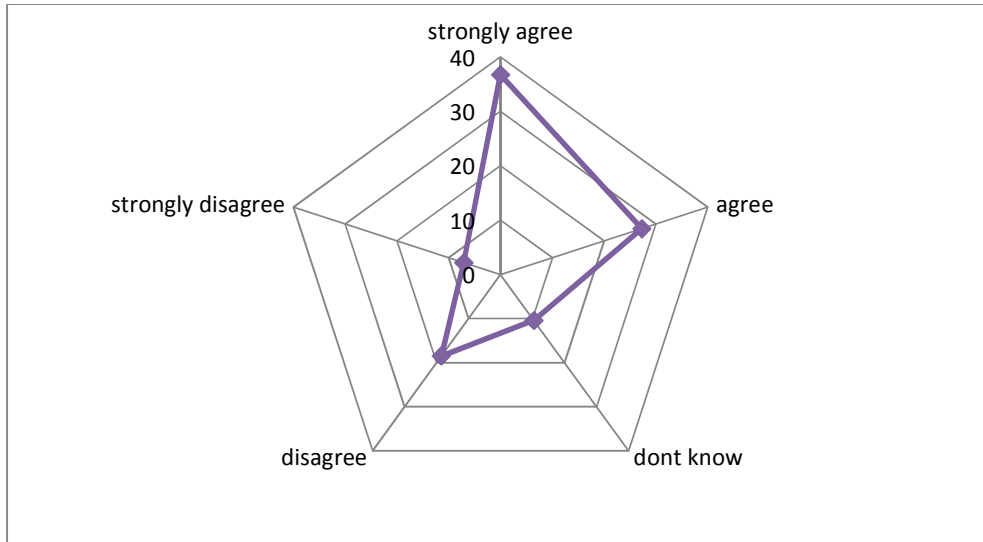


Source: Survey data

Figure 6.8 : Conditions at home is not satisfactory to pursue education

6.6 Perception of the tribal people - Employment

The tribal people do not want to part their traditional employment. Most of the respondents wants to revive their traditional employment and earn income from it (Figure 6.9). Their livelihood and their soul still remain in their traditional employment. The officials must take initiatives and provide sufficient inputs to revive their traditional employment and make it advantageous to them.

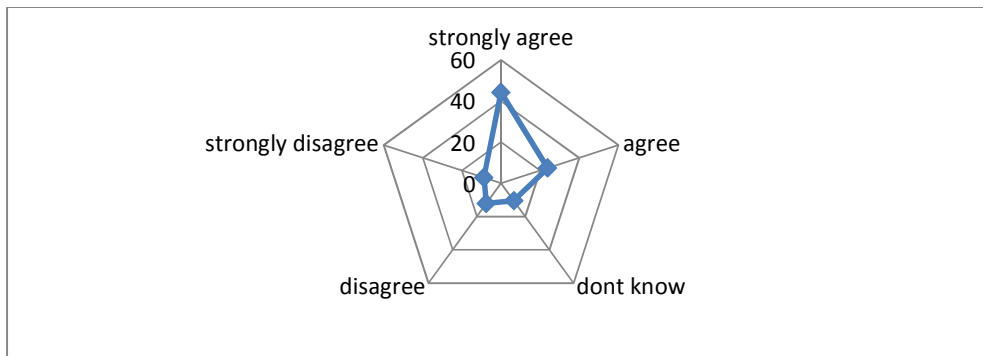


Source: Survey data

Figure 6.9 : Do not want to part my traditional employment

6.7 Perception of the tribal people - Livelihood

The tribal people strongly agree that they have limited livelihood options (Figure 6.10). The revival of traditional employment, decrease in dropout rates, creating an awareness on the significance of education indirectly helps the tribal people in increasing livelihood opportunities.



Source: Survey data

Figure 6.10 : Livelihood options are limited for tribal communities

Chapter 6 perception inference of the sample respondents show that they perceive weakly about their development and inclusion in the society. Statistical inference based on Factor Analysis shows that they are not well perceived in the areas of education, health and livelihood. Even though, they experience political and religious freedom they are in the clutches of policy options for capability deprivation and as a result of social and economic exclusion. It shows the need of several policy options for overcoming their perceptual problems.

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Chapter 7

CONCLUSION AND POLICY RECOMMENDATIONS

The study “Residential Segregation and Inaccessibility of the Tribes of Kerala: A Study on Issues and Impacts” is presented in six chapters both using primary and secondary data. It shows that the major factors leading to their segregation and exclusion are primarily linked to their poor socio-economic status and historical segregation and alienation. Earlier they were happy in their forest milieu, but development-oriented involvement of the outside community to juggle with the fortunes of the forest resulted in the tragedy of the tribes. This in turn generated further havoc in the existing residential segregation and forced them to move from one settlement to other again in segregated abodes. Hence, Chapter 7 gives conclusion of the study connected with the six main chapters of the thesis. This is followed by a brief policy note to mitigate the problems so as to reduce the issues and impacts of the tribes.

The over dependence on agriculture and allied activities was the major aspect of the tribal economy which often is a weakness due to the dwindling nature of returns from agriculture. In fact, in all the major sub-sectors in which the tribes were working most of them were labourers with very less percentage having a regular income earning avocation. Hence, their earning was low and it was difficult for them to have a decent living. This has to be linked also to the low wage and exploitation happening in the tribal hubs of Kerala.

An evaluation of educational attainment of the tribes evinced the pathetic condition of the tribes. Ironically tribal education was one sub-sector in which majority of the TSP allocation was spent. While the spending or allocation of funds in bettering the educational profile of the tribes was a step in the right direction and was a laudable one as education tethers intrinsic as well as instrumental value in uplifting the downtrodden tribes, it was a harsh reality that even at the student level majority as per the data are at the primary level (70 percent) and enrolment of students in graduation, post-graduation and technical/professional education sector was miniscule.

Land and land holding of the tribes have always been a controversial issue and there is paucity of concrete database on the landholding pattern and land issues of the tribes. Despite the land legislations to distribute a minimum of 5 acres of land to the tribes, the changing governments have not been keen to implement this in favour of the STs in Kerala.

To ensure the food and nutritional security of the scheduled tribes, the government has come up with several programmes like community kitchen, food and nutrition programme for the school going children and special package for the primitive tribal communities. The sad reality lies in the fact that these programmes have not been effective in providing the tribes with food and nutritional security.

Kudumbashree mission has been pivotal in the Kerala economy in ensuring women empowerment and financial inclusion among the poor and the marginalized in the rural as well as urban regions. The results showed that 61.49 percent of the tribal settlements are affiliated to the Kudumbashree and similar percent of the beneficiaries have been maintaining regular thrift in the groups. It was seen that 55.21 percent of the settlements that are engaged in the

Kudumbasree Ayalkootam providing loan to its members, while only 39.25 percent of the settlements whose Kudumbasree members have received loan assistance from Kudumbasree mission.

Access to the high schools, higher secondary schools and vocational higher secondary schools was difficult as these institutions were located beyond the 5 km radius of the ST hamlets. This makes it difficult for the STs to access the educational institutions. Access to other basic services like ration shop, consumer store, market, community hall, playground and reading room was also unavailable within their close vicinity. Even the ration shops, and consumer stores were available on an average of 1 to 2.5 km from their settlements.

Kerala's access to medical facility is well acclaimed, but in the case of the tribal hubs the situation is appallingly low. But by considering their settlements in the highly excluded terrains that creates more havoc in accessing the healthcare facilities, which in turn results in high mortality and morbidity rates. District hospitals in most of the cases are available within a range of 25-50 kms from the hamlet. The situation is worse in the Attappady and Agali tribal belts of Palakkad.

As per the 2014 data from the tribal department, Wayanad, Palakkad and Kasaragod districts accounted for the highest number of landless families in our State. The least was in Thiruvananthapuram district. In 2012-13, 2526.6 acres of land was distributed to 997 tribal families in the Wayanad district, whereas a mere 114.68 acres was distributed to 113 families during 203-14. However, the reality is that those who have been allotted title deeds do not have any idea about the location of their land. This showed that the resettlement package of the government has not yet reached the envisaged level. Hence, the tribes' right to possession of land still remains a reverie.

Data showed that 10731 tribal households together possessed 1764964 cents of land with ownership documents, of which 740954 cents were in use for various purposes. It also showed that 1137 tribal households have lost 145923 cents of land. There were several reasons for tribal land alienation. These included encroachments made by big windmill companies, resorts and farm developers. The situation was further worsened by the Wildlife Protection Act 1972, the Forest Conservation Act 1980 and the National Forest Policy 1988.

The land distribution details from 2013-14 to 2016-17 showed that the only district which was highly benefitted is Wayanad District, the majority tribal populated district. But the Idukki and Palakkad district did not figure much in the overall land distribution. The main problem cited in these districts is the non-availability of fertile land. Earlier, the government had distributed unfertile land which led to widespread agitation. Thus, the inadequacy of agricultural land is a major constraint before the government to satisfy the landless tribal population.

The segregation was largely based on the concentration of a community in a particular district. Irulas of Palakkad district, Malayarayans of Idukki district and Paniyas of Wayanad district were some examples of tribal segregation. The financial status and land-owning capacity of the tribes was also a determining factor in segregation as was evident from the fact that the backward communities like the Irulas and Paniyans faced more segregation compared to the forward tribal groups like the Malayarayans. Also, there existed a mutual relationship between housing segregation (based on backwardness) and the number of hamlets in one area.

Majority of the tribes resided in their own house (90.49 percent). However, the inter-community difference in the ownership of house was crystal clear from the data as the proportion of the tribes staying in their own house was

higher among the forward tribal groups. On the contrary the poor and primitive tribal groups like Paniya and Irula have low percentage.

Most of the Tribes lived in extremely deplorable conditions. They usually lived in one room or two room buildings mostly in torn out situation. It was disturbing to note that these houses have more than four family members. The drinking water facilities and sanitary conditions did not satisfy the tribal population. They lived in complete distress. Among the tribal communities, the Paniya community experienced pathetic housing condition.

In terms of landlessness, it was seen that in Idukki, the Hill Pulaya have the highest proportion of landless households (71 families). The Muthuvan and Mannan came second in the list with 32 and 29 families, respectively. Muthuvan community had 172 houseless families. Even among those families who were having houses, 72 percent of the houses were uninhabited. Other communities include Hill Pulaya and Malayarayan (105 and 101 families). In this category other community's percentages were the Mannan with 55.60 percent, the Hill Pulaya with 47 percent and the Urali with 44.50 percent. If the dual impact of the landlessness and homelessness have to be considered, Muthuvan was the most marginalized tribal group in Idukki. In Palakkad, the plight of the Irular community in terms of landlessness, homelessness and uninhabitable houses is pathetic. It showed that 75.24 percent of the houses of the PVTG group in Palakkad viz. Kurumba were in dilapidated situation. In terms of landless communities in Wayanad, Paniya and Kattunaika led the pack with 8.26 and 4.87 percent of the landless households. With regard to uninhabitable households in Wayanad, both these social groups were close at 52.84 percent for Kattunaika and 52.14 percent for Paniya.

Among the Districts under study, Palakkad and Idukki district faced constraints in accessing educational institutions. The problems were difficulties faced by the tribes in terms of access to higher educational institutions was clearly evident from the data. The Primary health centres were situated locally in the districts under our consideration. But the tribes did not make necessary use of it. The tribal population also enjoyed the right to life that ensures continuous availability of drinking water. In Idukki district, only 1.17 percent have access to drinking water. The respective figures in Palakkad and Wayanad is 7.61 and 8.22. The district wise differences showed that the Idukki district accounted for the highest transportation facilities while the performance of Wayanad and Palakkad was poor. Most of the institutions are located between 1-2.5 kms, 2.5-5 kms and even above 5 kms distance from the hamlets in majority of cases. Distance to public utilities from the tribal hamlets in the three districts is not so appealing or promising. The distance from the hamlets to the financial institutions like banks, cooperative societies, NGOs, forest offices, courts, etc. is discussed for the three districts. Access to commercial banks within a 1 km radius is available to 4 percent of the hamlets. Majority of the tribes have to traverse 10-25 kms to access the banking services. Another issue is that most of the tribal sub groups are unaware of the use of these institutions.

Males outnumbered females in all the prominent communities as per the primary survey results. A community wise analysis revealed that majority respondents belong to the age category 31-40 among the Irula, Kattunaikans, Kurumar, Muthuvan and Mannan. Among the Kurumbas the respondents belonged to 41-50 age category.

More than forty percent of the respondents were illiterate which asserts the incapability of the tribal people to earn a decent standard of living. Educational improvement substantially contributes to the overall socio-economic well-being of the people. The exception to this could be seen with regard to the Muthuvan Community. The illiteracy among the Muthuvan Community was less and a small minority of the people have earned Post Graduate qualification also.

For the communities Irula, Paniyar, Kurumbas and Mannan wage employed off farm was recognized as their main occupation. The main employment for Kattunaikkan and Muthuvan includes self-employed farming also. A community wise analysis based on their monthly income revealed the fact that majority of the tribal population earns less than 5000. Muthuvan and Mannan community recorded a slight increase in their monthly income. Low income was the byproduct of poor education. As education improves, the income increased which directly alters the standard of living among the tribal communities.

The amount of total indebtedness among the tribal communities varied from community to community. Among the Kattunaikkan community, 43 percent of people has a total loan amount between 300-1000. More than 70 percent of Paniya community has a loan of 1000-20000. The majority Kurumar community has a loan of more than 20000. A substantial amount of population among the Muthuvan Community came in the region of 1000-20000. Mannan community also has more population in the category of 300-1000.

Mannan, Muthuvan and Kuruma were in the top three in terms of income as well as the spending. Paniya has the lowest PCE whereas the Kurumba has the lowest PCI. There was no significant difference in the PCI and PCE based on community and hence failed to reject the null hypothesis that PCI and PCE are same for all the tribal sub groups.

Among the tribal sub groups, Irular has the highest Gini Coefficient score and Kuruma has the lowest score. This implied that the inequality within the Irular group was the highest among all the tribal sub groups. The Paniya and Muthuvan have the second and third highest inequality score. However, in general, inequality for all the tribal sub groups was less than 0.50. LC for Irular was further from the line of equality and that of Kuruma was the closest one.

Empirical analysis showed that the percentage of poor was lowest among the Manna community and highest among the Paniyan group. More than 40 percent of the Paniyan, Kattunaikan and Irular were poor. It showed that 30.77 percent of Kurumbar households were poor, whereas the poverty level among the Muthuvan and Kuruman were 20.93 percent and 21.62 percent. The results of FGT analysis on an intra tribal basis clearly indicated an intra-tribal disparity in the poverty indicators when evaluated the tribes not as a single entity while formulating development schemes and programmes. Based on the poverty depth and severity, Irular, Kurumbar, Paniyan and Kattunaikan were the worst performers and hence require special schemes and development assistance. Presently only the primitive tribal groups like the Kurumbar and Kattunaikan were in the ambit of the special schemes under PVTG. However, the situation called for special development assistance for the other tribal sub groups like the Paniyan and Irular.

A comparison of SLI of tribes between districts showed that the difference based on district seems to be minimal. However, those in high SLI were more in Idukki compared to other two districts and none of the households in Palakkad was in high SLI. Across the districts, more than 90 percent of the households were exhibiting medium level of living standards. The inter-district comparison showed that the SLI is more at the medium levels. So there has been some visible changes

in the standard of living due to the various development schemes, the changes have not been that much drastic as most of the households have not achieved high SLI levels which was a benchmark when one evaluated the overall household attributes and living standards of the people in Kerala.

The survey results show that there is negligible cultivation in the Palakkad District. In the districts of Wayanad and Idukki the cultivation was oriented towards cash crops rather than food crops. Even though cash crops were cultivated, it did not fetch a good price to make a decent living for the families. The presence of middlemen damaged the opportunities for a direct sale in the open market.

The manner of land alienation in Palakkad district was forceful eviction and also by lease. But in Wayanad district most of the land eviction was forceful. In Idukki district the land alienation was reported to be by mortgage and forceful eviction.

In all the three districts the tribal families were totally disappointed with the implementation of the housing scheme. The government authorities failed to monitor the progress of the construction of the houses. Most of the houses did not possess the basic facilities for a decent living. Due to the paucity of funds, the construction of most of the houses was not fully completed.

In the Palakkad district, majority of the families had reported that the PDS provisions were only partially available. But in Wayanad District, the majority got only meager amounts of PDS in the ration shops. This was the case with regard to Idukki district also. In all the three districts, the tribal families collected their food supplements from the ration shops on a monthly basis. With regard to the quality of the provisions, Palakkad district was reported to supply bad quality food supplements compared to the other three districts.

Model estimation of the Dissimilarity Index showed that the value of D indicated as 43.5 percentage of ST population might integrate with the general population in order to overcome the dissimilarities in population arising due to segregation. The value of D gave the impression that among the three districts, dissimilarities in population was the highest in Palakkad District. This could be interpreted that the degree of segregation is highest in Palakkad district. Thus, it could be deduced that the tribal population of Palakkad district did not integrate with the general population which led to their social exclusion.

The ANOVA results for PCE were not significant, whereas for PCI the results are significant. Further, for Duncan's test, for PCE, Wayanad was in subset 1 and Idukki is in subset 2. Palakkad appears both in subset 1 and 2. The results for PCI were also similar with Idukki in subset 2 and Palakkad in subset 1. However, Wayanad found its place in subset 1 and 2. While based on the ANOVA results, the hypothesis that the PCE levels were same across districts was retained, hence failed to reject the null hypothesis that PCI was same across districts hinting towards a significant difference in average PCI based on districts.

Interestingly, Idukki district which had the highest income and expenditure has the highest level of inequality in income distribution if their per-capita scores for the households were evaluated. The lowest level of inequality was for Palakkad district. However, the overall scores for the district-wise Gini Coefficient showed that the values are less than 0.50 for all the districts.

It showed that out of the poor households, majority were from the Wayanad district, followed by Palakkad and Idukki. The district wise order for the HCI and the relative incidence was also same. However, poverty depth and severity are higher for the Palakkad district and Wayanad came to the second place in terms of these indicators. A district wise comparison showed that while

Wayanad was the worst performer for the first two indicators of poverty, poverty depth and severity were the highest for Palakkad district. The results were indicative towards an inter-district disparity which was also visible via the field inference. Even though the tribal hubs of the Attappady region of Palakkad have been allocated a healthy sum of money for poverty alleviation and development, it was a sad reality that majority of these funds were either underutilized or not used for the desired purpose.

The Muthuvan community considered their health in a very good condition. Poor health condition was perceived by the Kattunaikan and Kurumar community. Very poor health conditions was noted among the Irula, Kurumbas and the Kattunaikan community. The majority of the tribal population considered allopathic as the best medical system. A negligible population also favored ethnic medicine and homeopathy. Financial incapability and remoteness were the reasons cited for unavailing health care facilities in the tribal settlements. The income they received from their employment does not suffice to meet their short-term health emergencies. Most of the tribal settlements were situated in the interior areas and they face difficulties in transportation, which contributed significantly to negligence in medical aid. The usual source of financing health care among the tribal communities was their own income. Some of the tribal families have also resorted to borrowing in case of huge expenditure and they also find money from pledging their valuables.

Factor Analysis regarding the benefits of segregation, the statements that have recorded above 0.50 loadings are 'comfortable neighborhood', 'majority of my community/caste belongs here', 'easy access to the workplace', 'could maintain good network/strength', 'availability of common amenities', 'staying here is the best option', 'security for the members' and 'political strength'. These statements

were considered as the benefits to live in a segregated area by the tribal population. The tribal population would like to live in area where they are in majority. The statement 'easy access to the workplace' indicates that most of them tries to find labour only in the nearby areas. They did not go out and search for job. If they did not get job in off seasons, they remain unemployed.

With regard to problems, in the initial extraction, the significant factors were 'denial of service amenities like loan/bank', 'residing here would hinder new avenues for my income and livelihood', 'access to education is difficult', 'dropout increased due to residing here'. In the second instance, the factor was 'lack of basic amenities'. In the third segment, the significant factor was 'unfriendly attitude of my community members'.

Statistical estimation based on Factor Analysis helped to identify perception on movements, political freedom, social coercion and gender are: in the first component 'women have full freedom to voice their views in the family, fear nobody for doing any type of employment, believe in any religion as they please, women are allowed to work and educate as they desires, there is full freedom to move across any area, strong political affiliation and have strong political network, good tolerance towards immigrants'. In the second component, the factors are 'no threat under political terror', 'never experience crime and violence against my community', 'and experience no discrimination and violence from police/officials/non-community member'. The factors in the third component are, 'used to vote for the candidate whom i choose the best', 'there is full freedom to express my views in any public space'. In the last component the significant factor is 'women are treated with respect in our community'.

Regarding education the analysis of the survey data concluded that most of the respondents strongly agreed that their conditions at home was not satisfactory to pursue education. The increased dropout rates among tribal children also pointed to the existence of unsatisfactory conditions at home. These conditions included consumption of alcohol, low earnings of the parents, existence of child labour, medical emergencies etc. The authorities have failed to notice this situation in most of the colonies.

The tribal people did not want to part their traditional employment. Most of the respondents wanted to revive their traditional employment and earn income from it. Their livelihood and their soul still remained in their traditional employment. The officials could take initiatives and provide sufficient inputs to revive their traditional employment and made it advantageous to them. The tribal people strongly agreed that they have limited livelihood options. The revival of traditional employment, decreased dropout rates, creating an awareness on the significance of education indirectly helped the tribal people in increasing livelihood opportunities.

The sample respondent's evaluation showed that they perceived weakly about their development and inclusion in the society. Statistical inference based on Factor Analysis showed that they were not well perceived in the areas of education, health and livelihood areas. Their socio economics and standard of living indicators are miserable. All these and land alienation and housing segregation and segregated life were major reinforcing forces for social exclusion of the tribes of Kerala. Even though they experience political and religious freedom, they are in the clutches of capability deprivation and lack of choices for an effective life in the society.

7.1 Policy Options

The study comes up with several policy options for the socio-economic empowerment and upliftment of the STs in Kerala. To make the tribes an effective life several policy interventions are necessary in the areas of education, land distribution, health and livelihood. Mere allocation in the education sector does not guarantee educational attainment this is more so in the case of the historically poor tribal communities. Apart from providing assistance to the educational sector, it is imperative to ensure that the fund is utilized effectively and thereby the dropout ratio is to be reduced among the tribal students. Education is a mirage, though lot of schemes spending huge amount does not generate any benefit to the community. In this area tribes specific education using tribal dialectics with tribal teachers only make necessary inroads in the tribal education. Hence, appropriate policy framework is required in this area to achieve education benefits to the tribes. Area which of concern for the policy makers is the health situation of the tribes. They face all types of health ailments which usually is un-peculiar to the tribes. But the change in food habits, work habits and addiction to alcohol create health vulnerabilities to the tribes. Area specific survey is to be undertaken to understand the malady of health and the causes thereof to overcome this impending danger.

The present legal framework to annual the land alienation does not help the tribes in any way. Land to the tribes is important for their survival which at present is prevented in one way or other. Need immediate policy changes to make sure that the forest land is made available to the tribes for cultivation and construction of houses. The government promises in this regard are half-hearted and hence it remains as unfulfilled promises.

The housing schemes to the tribes are impressive with decent allocation of funds. However, when it comes to the implementation stage at the household level, the funds provided to the households are awfully inadequate. There are issues with regard to the identification of beneficiaries and along with this, the bureaucracy-contractor-politician nexus make the housing scheme worthless for STs in a sustainable dimension. For the success of this scheme it is to be entrusted to an agency with some ST members and NGOs working the ST factions.

Livelihood security of any ST household is pivotal in ensuring socio-economic development and inclusion, asset creation and exit from poverty. The STs of Kerala have specific and unique skills in certain livelihood areas, but those are in high problems in a high cost economy. These areas are to be especially encouraged as micro-small enterprises with lots of financial subsidy with clear marketing network. Along with this they will be given skill-based training, which would in turn help to develop SHGs and Kudumbasree's in ST predominated hubs.

7.2 Contribution of the Researcher

Though, the study is not an all pervasive one delineating the issues and impacts of the tribes of Kerala, it touches upon several issues leading to housing segregation and exclusion. The Standard of Living Index Framework for explaining the socio economics of the tribes is in fact useful in highlighting the poor socio economics of the tribes. The perception of the tribes using Factor Analysis gives useful inferences in understanding the issues and impacts of the tribal community and thereby using these for proper policy nesting's to circumvent these issues. The segregation index is specifically a contribution to understand the nature of segregation and its gravity. So also, the case of inequality and poverty severity and poverty threshold analyses.

7.3 Scope for Further Research

The present study shows scope for further research in the area of tribal community. The land alienation area of the tribes itself is curiously significant to take for detailed enquiry and analysis. Tribal health issues and reducing rate of growth of their population are quite useful for a specific research in the Kerala situation. Food insecurity and the traditional agrarian setup and their denial of the right for collecting forest produce is also a useful area for research. Tribal schemes, development mismatches and governance issues are yet other areas for an interesting study.



REFERENCES

Adivasis Betrayed: Adivasi Land Rights in Kerala C. R. Bijoy. *Economic and Political Weekly* Vol. 34, No. 22 (May 29 - Jun. 4, 1999), pp. 1329-1335

Ainsworth, BE: Haskell, WL: Leon , AS: Jacobs , DR: Montoye , HJ: Sallis , JF and Paffenbarger ,RS. (1993). Compendium of physical activities: Classification of energy costs of human physical activities. *Medicine and Science in Sports and Exercise*.25(1):71–80.

Aiyappan, A. (1946). Report on the Socio-economic Conditions of the Aboriginal Tribal of Province of Madras: Madras Movement Printing press.

Ajitha, R (2014), “Deprivation in basic amenities among tribal households in Kerala” Paper presented at the 4th international congress on Kerala studies, 2015, AKG Study Center, Thiruvananthapuram.

Anas, Alex. (2004). Ethnic Segregation and Ghettos. *Urban/Regional 0408006*, University Library of Munich, Germany.

Ayyappan, A. (1965). Social Revolution in Kerala Village. *Asia Publishing House. Bombay*.

Beteille, Andre. (Ed.). (1983). Equality and Inequality- Theory and Practice: Oxford University Press.

- Borjas, George. J. (1998). To Ghetto or Not to Ghetto: Ethnicity and Residential segregation. *Journal of Urban economics*, Vol 44, Issue 2, 228-253.
- Bose, Purabi., Arts, Bas & Han van Dijk. (2012). Forest governmentality: A genealogy of forest dependent scheduled tribes in India. *Land Use Policy*, Vol 29, Issue 3, 664-673.
- Boustan, Leah and Robert, Margo. (2013). A Silver Lining to White Flight? White Suburbanization and African-American Homeownership, 1940-1980, *Journal of Urban Economics*, 7871-80.
- Burgess, Ernest W (1925): "The Growth of the City: An Introduction to a Research Project" in Robert Park, Ernest W Burgess and Roderick D McKenzie, *The City* (Chicago: University of Chicago Press).
- Burman, Roy B K (1982). "Transfer and land alienation of Tribal land". Tribal development in India. Inter India Publications, New Delhi.
- Centre for Development Studies (2005): "Human Development Report: Kerala", State Planning Board, Government of Kerala, Trivandrum, Kerala, available at http://planningcommission.nic.in/plans/stateplan/sdr_pdf/shdr_kerala05.pdf
- Chakravorty, Sanjoy. (2013). *The Price of Land – Acquisition, Conflict, Consequence*. Oxford University Press.

- Chathukulam, J, Reddy, M.G and Rao, P.T. (2013). Formulation and implementation of Tribal Sub-Plan (TSP) in Kerala. *Gandhi Marg*. 34(4): 517-564.
- Chaudhari, Buddhadeb(ed.)Tribal Transformation in India, Delhi: Inter India Publications, 1992.
- Clark, Gregory and David Zach Landes (2010): Caste versus Class: Social Mobility in India 1870-2010 Compared to England, 1086-2010(Berkeley: University of California Press).
- Clark, T.N and Lipset, S.M. (1991). Are Social Classes Dying? *International Sociology*, 6(4), 397-410.
- Cutler, David M and Glaeser, Edward L. (1997). Are Ghettos Good or Bad? *The Quarterly Journal of Economics*. Vol 112. No.3. 827-872.
- D Rajasenan, Bijith G. A. and Rajeev B (2015) Inter-Generational Households Characteristics and Living Standards of the Outlier Groups in Wayanad, Kerala, *Arthavijnana, Gokhale Institute of Politics and Economics (GIPE)*, Vol. 57, Issue 1, 2015.
- D. Rajasenan .(2010) The Perception-Reality Gap in Health Status of the Disadvantaged: Evidence from the Tribal Communities in Wayanad, Kerala. in *Inclusion of the Excluded: Dynamics and Challenges – (Ed) D.*

Rajaseenan (2010), published by the Directorate of Public Relations and Publications, CUSAT, Cochin. pp.56-67.

Deshpande, Ashwini. (2000). Does Caste still define Disparity? A Look at Inequality in Kerala, India. *American Economic Review*, Vol 90, Issue 2, 322-325.

D'Souza, Victor S. 'Does Urbanism Desegregate Scheduled Castes'? in Satish Saberwal, (ed.), *Process and Institutions J.n Urban India*, 1978, p. 238.

Dupont, V (2004): "Socio-Spatial Differentiation and Residential Segregation in Delhi: A Question of Scale?" *Geoforum*, 35, pp 157-75.

Economic Review (2013, 2014), State Planning Board, Government of Kerala.

Elwin, Vemer , *The Aborigines*, Oxford University Press, New Delhi,1943

Fernandes, Walter (2012). *Tribal customary and formal law interface in North East India: Implications for Land relations*. Concept Publishing Company, New Delhi.

Frey,William H and Farley, Reynolds. (1996). Latino, Asian and Black Segregation in U.S. Metropolitan Areas: Are Multiethnic Metros Different? *Demography*, 33 (1): 35-50.

- Gaschet, Frederic and Le Gallo, Julie. (2005). The Spatial Dimension of Segregation- A Case study in four French Urban areas, 1990-1999. *ERSA conference papers. European Regional Science Association.*
- George, J. (2007). Socioeconomic Impact of Job Reservation: A Comparative Study of the Christian Malai Arayans and other Hill Tribes in Idukki and Kottayam Districts of Kerala.: *PhD thesis, Mahatma Gandhi University, Kottayam.*
- Ghurye, Govind Sadashiv. (1943). The aborigines--"so called"—and their future, Poona: Gokhale Institute of Politics and Economics.
- Gilbert, Jeremic. (2005). India: the blur of a distinction: Adivasis experience withland rights, self rule and autonomy. *International law and Indigenous peoples, Middlesex University Research Repository, 269-292.*
- Gopala Rao. . (1978). Land Alienation - A Menace of Tribal Economy. *Tribe, x, 4.*
- Haddad, Slim; Mohindra, Katia Sarla; Siekmans, Kendra; Mak, Genevieve and Narayana, Delampady. (2012). “Health divide” between indigenous and non-indigenous populations in Kerala, India: Population based study. *BMC Public Health.*
- Haque, T. (2012). Improving the rural poors’ access to land in India. *Council for Social Development, New Delhi.*
- Haque, T. (Ed.). (2012). Land policies for Inclusive Growth: Concept Publishing Company.

- Ihlanfeldt, J and Sjoquist, D. (1989). The impact of decentralization on the economic welfare of central city blacks. *Journal of Urban Economics*. 26, 110-130.
- Jacob John, Kattakayam, Social Structure and Change among Tribals, D.K. Publications, Delhi, 1983.
- Joseph, V V. (2004). Tribal development in Kerala a critique: A case study of the Malai Arayans in Kottayam District. *PhD thesis, Mahatma Gandhi University, Kottayam*.
- Jyotishi, Amalendu & Deshpande, R.S. (2002). Land transaction in Tribal economies: A study from the Scheduled areas of Orissa. Institute for social and economic change. Working paper 109.
- Kakkoth, Seetha. (2012). Unheard Voices: A study on the perceptions of Tribal School Drop-outs in Kerala. *Research report submitted to Child Rights and You*.
- Kalathil, Mariamma J. (2004). Withering Valli: Alienation, degradation and enslavement of tribal women in Attappady. *Discussion paper No. 66. Kerala Research Programme on Local level Development, CDS*.
- Karat, Prakash. (1973). Agrarian relations in Malabar: 1925 to 1948. Part two: Differentiation amongst the Peasantry. *Social Scientist*, Vol 2, No 3, 30-43.

- Kattakkayam, John. (1983). Social Structure and the Change among the Tribals- A study among the Uralis of Idukki district in Kerala. *D.K Publications, New Delhi.*
- Kjosavik, D & Shanmugaratnam, N. (2007). Property rights Dynamics and Indigenous communities in Highland Kerala, South India: An Institutional Historical perspective. *Modern Asian Studies, 41 (6), 1183-1260.*
- Kunhaman, M. (1982). The Tribal Economy of Kerala: An Intra- Regional Analysis. MPhil Dissertation. CDS.
- Kunhaman, M. (1985). The Tribal Economy of Kerala- An Intra Regional Analysis. *Economic and Political weekly. Vol 20, Issue No.11.*
- Land alienation still haunts Tribes: Study (2010, September 28). The Hindu.
- Levesque JF, Harris MF, Russell G (2013) . Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *Int J Equity Health.12:16–28.*
- Lewis, Oscar. (1959). Mexico since Cardenas. *Social research. Vol 26. 18-30.*
- Malik, Suneila. (1979). Social Integration of Scheduled Castes: Abhinav Publishing Company.

- Manoj, Nikitha P M. (2012). Dynamics of Residential Segregation among the SC population in India: The case of Chennai. MPhil Dissertation. CDS.
- Marx, Karl. (1895). *The Class Struggles in France*. Accessed from www.marxists.org.
- Massey and Denton (1988), "The Dimensions of Residential Segregation" *Social Forces*, Vol. 67(2), pp. 281—315.
- Massey, D.S and Denton, Nancy A. (1987). Trends in the Residential Segregation of Blacks, Hispanics and Asians: 1970-1980. *American Sociological Review*, Vol 52, No.6, pp. 802-825.
- Massey, D.S, G.A. Condran and N.A. Denton. (1987). The effect of residential segregation on black social and economic well- being. *Social Forces*, 66: 29-56.
- Mathur,P.R.G. (1975). Transfer and Alienation of Tribal Land and Indebtedness. *Journal of Kerala Studies*, Part II, Vol.XLV.
- Mathur,P.R.G. (1977). Tribal situation in Kerala. Kerala Historical Society, Trivandrum.
- Mehta, S. (1969). Patterns of Residence in Poona, India, by Caste and Religion: 1822-1965. *Demography*6(4): 473-491.
- Ministry of Tribal Affairs, Annual Report, 2015-16, Government of India.

- Mishra, A. K. (2012). Urban master plans in Rajasthan, India: A case of Alwar, *Management Research and Practice*. 4 (1), 2012, 31-44.
- Mishra, Vardhan Swasti (2012). The Spatial specificities of SC and ST population in Kolkata City: Approaches, Techniques and Analysis, *Journal of New Frontiers in Spatial Concepts*, Vol. 4 (2012), 53 – 59.
- Mohan, Ratheesh. (2011). Exclusion, Poverty and Participation of Tribes: A Comparative Study. MPhil Dissertation. CDS
- Mohanty, K. Bimal. (Ed.). (2011). Economic Development in India- Issues and Challenges: New Century Publications.
- Mohanty, P K (2006). Encyclopaedia of Scheduled Tribes in India. Isha Books. Newdelhi.
- Moorkoth, Jency & Meera. (2012). Countering Hegemonic History: Understanding Adivasi Land Politics in Kerala. CLACSO Southern Papers series. Working papers no.8.
- Munster, U & VishnuDas, S. (2012). In the Jungle of Law: Adivasi Rights and Implementation of Forest rights Act in Kerala. *EPW* 47(19), 38-45. Retrieved from <http://www.jstor.org/stable/23214975>.
- Murdia, Ratna. (1975). Land allotment and Land alienation- Policies and Programmes for SC and ST. *Economic and Political Weekly*.
- Narayan, Deepa & Petesch, Patti. (Ed.). (2012). Moving Out of Poverty- Vol 1- Cross Disciplinary Perspectives on Mobility: Academic Foundation.

- Ogbu, John U and Simons, Herbert D. (1998). Voluntary and Involuntary Minorities: A Cultural – Ecological Theory of School Performance with some Implications for Education. *Anthropology and Education Quarterly. American Anthropological Association. Vol 29.*
- Oommen, M. A. (2014). Growth, Inequality and well-being: Revisiting fifty years of Kerala's development trajectory. *Journal of South Asian Development, 9(2), 173-205.*
- Paltasingh, Tattwamasi & Paliwal, Gayatri. (2014). Tribal population in India: Regional dimensions and Imperatives. *Journal of Regional Development and Planning, Vol 3, No.2.*
- Panagariya, Aravind and More, Vishal. (2013). Poverty by Social, Religious and Economic groups in India and its Largest States- 1993-94 to 2011-12. *Working Paper No.2013-02. Columbia University.*
- Pankaj, Ashok .K & Pandey, Ajit. K. (Ed.). (2014). Subalternity, Exclusion and Social Change in India. Foundation Books.
- Park, Robert E. (1915). The City: Suggestions for the Investigation of Human Behaviour in the City Environment. *American Journal of Sociology 20. 612-777.*

- Park, Robert E. (1926). The Urban Community as a Spatial Pattern and a Moral Order. *The Urban Community*. University of Chicago Press. 3-18.
- Patel, M.L. (1998). Agrarian Transformation in Tribal India. M D Publication Pvt Ltd.
- Prabhakaran, G. (2013). Addiction raises a spectre in Attappady. *The Hindu*, 25 April, available at <http://www.thehindu.com/todays-paper/tp-national/tp-kerala/addiction-raises-a-spectre-in-attappady/article4652585.ece>
- Pradeep, C & Abraham, Jacob M. Empowerment of Tribals in Kerala. www.theglobaljournals.com. Accessed on May 2015.
- Prakash, Chandra Mehta, Tribal Development in 20th Century, Shiva Publishers and Distributors, Udaipur, 2000.
- Prakash, P. K. (2002). Annyadheenappedunna Bhoomi: Adivasi Bhoomi Prasannante Charithravum Rashtriyavum. (Malayalam). Kozhikode: Jayachandran Suhrudsamgham.
- Rajasenani, D and Abraham, B. G. (2013). Socio-Economic situation of Tribes in Wayanad: A Distinct Case of Underdevelopment. *Working Paper series*. Volume 3, No.3.
- Rajasenani, D, Augusto De Venanzi and Rajeev B (2017) "Inclusion of Tribes in the Growth Process in Kerala : An Evaluation of Policies and Schemes". CSSEIP Working Paper.CUSAT. Vol 3 Number II.

Rammohan, K.T. (2008). Caste and landlessness in Kerala: Signals from Chengara. EPW, Sept 13.

Ranganatha, B. (2014). Tribal identity and the implications for political and cultural development: A sociological analysis. *International Journal of Applied science and engineering, Vol 2, Issue 1, 27-40.*

Raviraman, K (2002); “Breaking new ground: Adivasi land struggle in Kerala” EPW March 9,37 Pg.916-918.

Report of the committee on India vision 2020 (2004), Planning Commission, Government of India.

Residential Segregation. (2014, July 31): www.stata.com

Rupavath, Ramdas. (2009). Tribal land alienation and Political movements: Socio- economic patterns from South India. Cambridge Scholars publishing.

Schelling, (1971). Spatial proximity model and bounded neighbourhood models of Segregation.

Sen, A.K. (1995), Demography and Welfare economics. *Empirica* 22: 1-21.

Sengupta, Nirmal. (1986). Tribal India: History, Politics, Polemics. *Economic and Political weekly. Vol 21, No 4. 161-163.*

- Shyjan, D and Sunitha, A.S. (2009). Changing Phases of Kerala's Development Experience and the Exclusion of Scheduled Tribes: Towards an Explanation. *Artha Vijnana. Vol. LI. No.4. 340-359.*
- Singh, G., & Vithayathil, T. (2012). Spaces of Discrimination. *Economic and Political Weekly, 47(37), 60-66.*
- Socio- Economic Survey of SC and ST (1976-77), Department of Economics and Statistics, Government of Kerala.
- Steur, Luisa. (2010). Indigenous identity: Burden or liberation? *Focaal- Journal of Global and Historical Anthropology. No 53.*
- Steven R. Holloway. (2000). Identity, contingency and the urban geography of 'race', *Social & Cultural Geography, 1:2, 197-208.*
- Stoll, Michael A., Harry J.Holzer and Keith R. Ihlanfeldt. (2000). Within Cities and Suburbs: Racial Residential Concentration and the Spatial Distribution of Employment Opportunities Across Sub-Metropolitan Areas. *Journal of Policy Analysis and Management 19 (2): 207-232.*
- Suchitra, M. (2013). Essential healthcare services failed in Attappady: UNICEF. *Down to Earth, 10 July*, available at [http:// www.downtoearth.org.in/content/essential-healthcare-services-failed-attappady-unicef](http://www.downtoearth.org.in/content/essential-healthcare-services-failed-attappady-unicef) .

- Sunitha A. S and D. Rajasenan (2010). Health Status and Deprivation: An Analysis of its Correlates among Tribal Communities in Kerala. in *Inclusion of the Excluded: Dynamics and Challenges – (Ed) D. Rajasenan* (2010), published by the Directorate of Public Relations and Publications, CUSAT, Cochin. pp.129-149.
- Suttles, Gerald D. (1972). The Social Construction of Communities. *Studies of Urban Society. University of Chicago Press, Chicago.*
- Taeuber, Karl. (1988). The Contemporary Context of Housing Discrimination. *Yale Law and Policy Review. Vol 6, Iss 2, Article 7.*
- Therustrom, S and Therustrom, A. (1997). America in Black and White. *Touchstone Books. New York.*
- Thresia, Cu. (2014). Social Inequities and Exclusions in Kerala's 'Egalitarian' Development. *Monthly Review. 65. 28. 10.14452/MR-065-09-2014-02_3.*
- Thurston, Edgar. (1913). The Madras Presidency with Mysore, Coorg and the Associated States. *Cambridge University Press.*
- Trivedi, H.V. (1998). Tribal propensities, development, disparities and the recipe mix. *Indian Journal of Public Administration, 34 (2), 340-353.*
- Velluva, S. (2006). Land settlement and degradation: Dynamics of land use in recently settled forest areas of Kerala. *New Delhi: Serials Publications.*



ANNEXURES

Annexure - I Interview Schedule

House Hold Schedule No.	
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Identification Particulars

District.....Taluck.....

Village.....

Panchayath.....Ward No.....

Name of the Respondents.....

Age of the Respondents.....

Category (SC/ST).....

Religion.....Caste/Community.....

Ooru/Hamlet name.....

House Name/No.....

1. Profile of House Hold Members

1	2	3	4	5	6	7	8	
Member ID	Name (Head of the HH First)	Sex (Male 1, Female-2)	Age	Year of Birth	Relation (Code-1)	Marital Status (Code-2)	Educational Qualification (Code-3)	Activity Status Code-4
M1						
M2						
M3						
M4						
M5						
M6						
M7						
M8						
M9						
M10								
Code-1 Head of the HH-1 Father/Mother-2 Husband/Wife-3 Unmarried Children-4 Married Children -5 Son in law/Daughter in law-6 Grandchild-7 Father in law/Mother in law-8 Brother/sister -9 Others (specify).....10		Code-2 Unmarried - 1 Married-2 Widow/ Widower-3 Divorced-4 Separated-5	Code-3 Illiterate-1 Literate without formal schooling-2 Primary-3 Up to SSLC-5 SSLC Pass – 6 Pre-degree/Plus II-7 Diploma/Certificate Course -8 Graduation-9 Post Graduation (PG) – 10 Professional Course -11			Code-4 Employed-1 Unemployed-2 Student-3 Dropout-4 Doing House hold Chores-5 Unable to work-6 Unwilling to Work-7 Courses .....8		

2. Were you born in this village or did you migrate here?.....(Born -1;
Migrate-2)
3. Expenditure (Average)

S.No	Particulars	Monthly	Yearly
1	Food		
2	Alcohol & Tobacco		
3	Health		
4	Education		
5	Clothes/Equipments		
6	Travel		
7	Communication		
8	Repayments		
9	Other Utilities/Bills		
10	Other Micellaneous		

2. Activity /Livelihood Details of the Members

No1	11		12		13		14		14		15		16		17		18			
Member ID (Earning Member Only)	Employment (Main-E Subsidiary-S) (Code-5)		Employment (Type (Code-6)		Place of Work (Code-7)		Type of Emolument (Code-8)		Employment (Type (Code-6)		Salary/Wage (Amount)		No. of Days Worked in last seven days		No. of Days Worked last month		Average Monthly Income from all Sources (Amount)			
	E1	S1	E1	S1	E1	S1	E1	S1	E1	S1	E1	S1	E1	S1	E1	S1	E1	S1		
M.....																				
M.....																				
M.....																				
M.....																				
M.....																				
M.....																				
M.....																				
M.....																				
Code-5 Self employed farming-1 Self employed off farm-2 Animal Husbandary - 3 Wage employed farming - 4 Wage employed off farm-5 Migrated outside the community-6 Plantation/Estate Labour-7 Private Jobs - 8 Public Jobs - 9 Employment Guarantee Schemes - 10 Others.....11							Code-6 Permanent - 1 Contract-2 Parttime - 3 Full time - 4 Seasonal-5 Others.....6					Code-7 At home -1 Outside home in Village-2 Outside Village-3 Outside District-4 Outside Kerala in India -5 Out of India-6					Code-8 Daily-1 Weekly-2 Monthly-3 Seasonal-4 Others.....			
Remarks.....																				
.....																				

Hosing, Basic Amenities and Assets

3. House Type ownership and others

SL	In fracture	Current year	Code9	Code13	Code16
			Own-1	Earth/mud-1	Possession only-1
1	House Ownership (Code9)		Parents-2	Bamboo/Iron Sheet-2	Common Pattayam-2
2	Fund for construction of house (Code 10)		Relatives -3	Cement/bricks-3	Single individual
3	Type of House (Code 11)		Rentedi-4	Timer (wood)-4	Pattayam - 3
4	Floor Material (Code 12)		Leased -5	Stone-5	No Possession deed/no
5	Wall Material (Code 14)		Others -6	Others-6	Pattayam-4
6	Roofing Material (Code 14)		Code 10	Code 14	Code 17
7	No. of Rooms		Self-1	Thach grass / palm	House/Piped
8	Area of House (Sqft)		Govt. Support-2	Leaves -1	Connctcion-1
9	Sanitary latrines (Code 15)		Other Institutions	Iron/tin	Own well – 2
10	Whether you are using it ? (yes 1, No – 0)		-3	Sheet/asbestors-2	Public Well/Tap – 3
11	House area land holding (in acres)		Friends/Relatives-4	Tiles – 3	Stream/Canal/river – 4
12	Total land holding (in acres)		Others.....5	Concrete-4	Rain water harvesting-5
13	Cultivated area (in acres)		Code 11	Others.....5	Others.....-6
14	Type of ownership (House area land) (Code 16)		Pucca-1	Code 15	Code 18
15	Type of Ownership (Agriculture land) (Code 16)		Semi Pucca-2	No latrines -1	Wood-1
16	i. Drinking Water (Code 17)		Kucha-3	Serviceable latrines -2	Kerosene-2
	ii.Agriculture (Code 17)		Serviceable	With roof, wall door-3	Gas -3
	iii. House Uses (code 17)		Kucha-4	Pucca latrines with	Electricity-4
17	i. Main fuel used for cooking (Code – 18)		Unserviceable	Water su[pply-4	Others
	ii.Substance Fuel for cooking (Code 18)		Kucha-5		.....5
			Code12		
			Earth/mud-1		
			Cement-2		
			Tiles-3		
			Others-4		

4. Animal Husbandry (Numbers)

SNo.	Live Stock	Number	How Procured (Code-19)	Sl.No	Poultry	Number	How (Procured (Code-19)
1	Cow			1	Chicken		
2	Ox			2	Duck		
3	Buffalo			3	.....	
4	Goat			4	.....	
5	Pig			5	.....	
6	Others			6	.....	

Code-19 : Self-1; Loan/Hire-2; Provided by friends/relatives -3; By Govt. Programme-4; Grants/Subsidies-5; By NGO / other institutions-6; Other.....7

5. House Access to Services

Service	(Yes-1, No-6)	Possession (individual -1; Shares-2; Others-3)	If grant the amount	How Procured (code-19)
Proper Sanitation				
Water				
Electricity				
Fuel for Cooking				
Loan				

6. Access to Services

Services	Located in which place	Distance (Km)	Availed to you (Yes-1; No-0)	Available within hamlet/Ooru (Yes-1; No-0)
Fuel Stations				
Gas Agency				
Pucca road				
Bus stand				
Railway station				
Auto/Jeep/Taxi Stand				
Common Market				
Local Shop				
PDS-Ration Shops				
Health Centre				
Hospital				
Medical Shops				
Anganwadi				
Schools				
Colleges				
Other Technical Institutions				
Post Office				
Panchayath Office				
Police Station				
Fire and Rescue				
Water Authority				
Telephone Exchange				
Electricity Office				
Ambulance Facilities				
Recreation Club				
TV/Radio Hall				
Library/reading room				
Community Hall				
Open Ground				
Internet facility				

7. House hold Assets and other Equipment

Name of Asset	Availed (Yes-1; No-0)	How Procures (Code-19)	Name of Asset	Availed (Yes-1; No-0)	How Procures (Code-19)
Domestic Appliances			Domestic Appliances		
Television			Bicycle		
Cable/Dish TV			Motor cycle		
Radio/Tape Recorder			Auto-rickshaw		
DVD Player			Car/Jeep		
Fixed/Land Phone			Others.....		
Mobile Phone			Agriculture Equipment		
Computer			Hoes/Chopper		
Refrigerator			Spades/shovel		
Mixer Grinder			Ploughs/Axes		
Cooker			Sprayer		
Gas and Stove			Irrigation pump		
Bed and Coat			Others.....		
Chair/Sofa set/Almirah			Code-19 Self-1; Loan / Hire-2; Provided by friends/relatives -3; By govt. Prog-4; Grants/subsidies -5; By NGO/other institutions-6; Other.....7 (specify)		
Dining Table					
Sewing Machine					
Mosquito nets/protection					
Fan and Lights					
Water pump					
Water tank					
Others.....					

8. Current Status of Indebtedness

S.No	From Whom	Amount (Rs)	Purposes (Code-20)	Year	Collateral (Code 21)	Mode of Repayment (Code 22)	Source Repayment (code 23)
1	Bank	.....		.....
2	Private Money lender	.....		.....
3	Kudumbasree	.....		.....
4	Cooperative Society	.....		.....
5	Local Shopkeepers	.....		.....
6	Friends/neighbours/relatives	.....		.....
7	MGNRGP	.....		.....
8	Other (Specify)	.....		.....
	Total	.....		.....

Code 20:

Education-1

Treatment-2

Purchase of land-3

Marriage-4

Self employment-5

Farming and Live stick -6

Construction of houses-7

Day to day expenditure – 8

Other.....9

Code 21

No collateral-0

Land -1

Jewelary-2

Salary Certificate-3

Others4

Code 22

Regular-1

Irregular-2

Defaulted-3

Code 23

Own income -1

Borrowed from

Others -2

Loans-3

Others-4

SECTION B

1 .Agriculture

1. Whether you have been cultivating anything.....(Yes-1; No-2)
2. Main crops cultivated (tick)

Grains <input type="checkbox"/>	Paddy <input type="checkbox"/>	Chama <input type="checkbox"/>	Thena <input type="checkbox"/>
Cholam <input type="checkbox"/>	Radi <input type="checkbox"/>	Others..... <input type="checkbox"/>	
Pulses <input type="checkbox"/>	Green Gram <input type="checkbox"/>	Bengal gram <input type="checkbox"/>	
Beans <input type="checkbox"/>	Others..... <input type="checkbox"/>		
Vegetables <input type="checkbox"/>	Bannana <input type="checkbox"/>	Spinach <input type="checkbox"/>	Binjal <input type="checkbox"/>
Tomato <input type="checkbox"/>	Others..... <input type="checkbox"/>		
Cash Crops <input type="checkbox"/>	Rubber <input type="checkbox"/>	Coffee <input type="checkbox"/>	
Cardamon <input type="checkbox"/>	Pepper <input type="checkbox"/>	Areca nut <input type="checkbox"/>	
Cotton <input type="checkbox"/>	Others <input type="checkbox"/>		
3. You are cultivating the crops for.....
(1-self consumption; 2- outside sales ; 3-both)
4. What are the problems you face in cultivation? Rank three main problems

Problems			
Lack of irrigation facility		Lack of credit facility	
Attack from wild animals		Lack of initial capital	
Lack of seeds, seedling and fertilizers		Lack of technical knowhos	

5. Do you get any of the following assistance from Panchayath/ITDP for cultivaton.....(Yes-1; No-0)
6. Nature of Assistance (Yes-1; No-0)
- 7.

Nature of Assistance			
Irrigation Facility		Credit facility	
Electric fencing		Provision for Initial capital	
Free seeds, seedling and fertilizers		Technical knowhos	

2. Health and healthcare system

1. How do you perceive your / family's health?.....
 (Very good-1 Good-2 Moderate-3 Poor-4 Very poor-5)

2. At what stage do you visit a doctor?.....
 (Very beginning-1;
 After trying over the counter medicines -2;
 After trying rituals/magic-3;
 After trying local medicines -4;
 After consulting tribal head-5;
 After weighing for few days to get it selfrecovery -6;
 When gets worsened-7)

3. Rank the Medicare system your prefer most?.....
 (Appeasing gods through ritual-1
 Ethnic medicine-2
 Ayurveda medicine -3
 Allopathic-4
 Homeopathic -5)

4. Are there times when you or your family members don't seek healthcare even if sick?.....(Yes-1; No-0)

5. If yes, rank the reasons for not seeking health care?
 (Financial incapability-1;
 Remoteness-2;
 Unavailability of accompaniment-3;
 don't think it necessary-4;
 Unaware of medical availability -5;
 Other.....-6)

6. Whether there had been any incidence during the period (number)

	No	Mortality			(Yes-1 No-0)	Morbidity		(Yes-1 No-0)	
		Age	Sex	Cause Code 1					
Last one year	1			.....				
	2			.....				
Last five year	1			.....				
	2			.....				

Code :1

Accidents-1

Atrocities -2

Diseases-3

Old age-4

Others.....5

Code : 2

1- Common disease like fever and aches

2- Respiratory related issues

3-Corollary heart diseases

4-Skin

5-Malnutrition and deficiency

6- Life style diseases

7-Infectious diseases

8- Others

7. Rank your usual sources of financing health care expenditure ?.....

(Own incopme/saving -1; Borrowing -2; Pledging of assets/valuables -3;

Others please specify.....-4)

3. Food Consumption Pattern

1. How many square meals do you have a day?
(One-1; Two-2, Three-3, More than 3 times a day-4)

2. Frequency of Food consumption.

SL No.	Item	Frequency
1	Egg	
2	Fish	
3	Meat	
4	Milk	
5	Rice/Wheat	
6	Vegetables	
7	Pulses	

(1-never; 2 – two or more times a day; 3- daily; 4 – twice a week; 5 weekly; 6-monthly; 7- others, specify)

3. How often do you smoke or use tobacco?.....
Never-1 Rarely-2 Sometimes -3 Often -4 Always-5

4. How often do you drink alcohol?
Never-1 Rarely-2 Sometimes -3 Often -4 Always-5

4. Land

1. Whether any land is alienated from you?.....(Yes-1, No-0)
2. If yes, the areaand
year.....
(a) less than 50 cents (b) 51 cents- 1 acres (c) 1 -2 acres
(d) 2-3 acres € more than 3 acres
3. Manner of land alienated
(By lease-1; forefully-2; Mortgage-3; Others -5.....)

5. Alienated by whom?.....

(Relatives -1; other members of the same community -2; Members of the same caste-3:
other caste -4; others.....5)

6. Perception about residential Segregation

1. Do you feel any benefit of residing in a segregated situation (Yes-1, No-0)

2. Benefits of Residential Segregation

Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Comfortable neighborhood					
Majority of my community/caste belongs here					
Easy access to the workplace					
Access to Government schemes/programmes if together					
My friends/relatives/parents live here					
Can maintain good network/strength					
Availability of common amenities					
Access to better healthcare					
Better education					
Can attend social/community functions					
Staying here is the best option for me and my family					
Build community /caste strength security for the members					
Political Strength					
Culture and tradition can be protected					

5. Problems faced due to segregation

Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Lack of basic amenities					
Discrimination by others as I am residing here					
Discrimination due to caste/community					
Denial of Public amenities					
Unfriendly attitude of my community members					
Residing here will hinder new avenues for my income and livelihood option					
In accessibility of healthcare options					
Access to education is difficult					
Dropout increases due to residing here					
No better social life					
Better a mixed culture than isolated one					
Less Security for the members					
Exploitation from political interference					

6. Education

1. Where are your children studying

	Course	Studying as	Codes	Institution	Codes
			1-Day		Government-1;
M1		Scholar		Private-2
M2		2-Hostler		Aided-3
M3		3-Others...		Self Financing-4
M4				MRS-5
M5				Others.....6

2. Do you incur any kind of financial burden for their studies? (Yes-1; No-0)

3. If yes what is the nature? (Rank according to their predominance of occurrence)

Course Fees.....Trave.....Private Tuition

Fees.....Dress.....

Food and Accomodation.....Books and other study

materials.....Others.....

2. Do you find any difficulty in educating your child? (Yes/No-0)

3. If yes rank the reasons from the highest difficulty to the lowest

Remoteness.....Affordability.....Inaccessibility.....lack of facilitiesothers.....

4. Is there any dropout in your family(Yes-1; No-0)

5. If yes the reason for dropout from the highest lowest.....

(For doing job-1; Doing household chores-2; Unable to understand the lessons-3;

Unwilling to study-4; Remoteness-5; Unfriendly conditions at school -6; Financial difficulty -7; others.....8)

7. Nature of Communication

1. How do you get success to information? (Rank)
 News paper..... Radio.....TV.....Internet.....Word of Mouth

2. How do you get to know about developmental programs? (Rank).....
 (Community Promoters-1;
 Notice disturbed by concerned authorities'-2;
 neighbours-3,
 Kudumbasree members-4,
 Panchayath members-5,
 Moopan-6, Others.....7)

3. Do you attend Gramasabha meeting/Oorukootam meeting? (Yes-1; No-0)

4. When do you come to know about the Gramasabha/Okrukootam Meetings?
 (Never-0; A week before the meeting-1;
 After the meeting -2; On the day of meeting;
 A day before -4; Two three days before the meeting-5)

5. Do you able to convey your problems through Gramasabha/Okrukootam Meetings?
 (Yes-1; No-0)

6. Is your problem resolved through Gramasabha/Okrukootam Meetings?
 (Yes-1; No-0)

9. Other Schemes Aailed by your so far

No	Schemes	1-Yes/2-No	Specify the Scheme	Type (code 1)	Whether there is a direct Cash transfer (Code 2)	Provider (Code 3)	Year	Amount	Howmany times you have availed the facility	Presnt Status (code-4)	Whether you have used the fund for other purpose Yes-1/No-0	Dou have any idea about how the total fund Has been utilized (Y/n)	Iam fully satisfied with the implementation of the project (code
1	Toilet												
2	Drinking Water												
3	Road												
4	Electricity												
5	Welfare pensions												

6	Self Employment												
7	Irrigation												
8	Training Programmes												
9	Agriculture Equipments												
10	Live Stock												
11	Seeds, seedling and fertilizers												
12	Other subsidies.....												

Codes :

Code 1- Individual level; 2-Household level; 3-Area level; 4-Group level like Kudumbasree/SHGs etc.; 5 – Others.....

Code 2- Full cash transfer; 2. Partial cash transfer; 3- No cash transfer

Code 3 Central Government ; 2-State Government; 3-ITDP; 4- LSG; 5-NGOs; 6-International Agencies; 7-Others.....

Code 4 Partially completed, but usable-1; partially completed, but not usable-2 fully completed -3 Nothing has been done

Code 5 Strongly agree-1; Agree-2; don't know-3; disagree-4, strongly disagree-5

SHG Membership

1. Are you a member of SHGs.....(Yes; No-0)
2. Which type of SHGs you are in? (SHGs Promoted by)
Kudumbasree.....SHGs under religions.....SHGs under
NGOs.....Others.....
3. Total Members.....Community Members.....Other Community
Members.....
4. Year in which your group has came into existence.....
5. Thrift Amount.....
6. Whether it has carried out any productive activity? (Yes-1 No-0)
7. If yes, the type of activity is being carried out. Please specify the activity and year in
which it started

No	Activity	Status (code-7)	For answers 2 or 3, state the reason (code-8)
1	Thrift		
2	Community Kitchen		
3	.....	
4	.....	

(code -7 : 1 – still continuing, 2 – Paused for a while; 3 – Terminated

Code-8: Lack of fund; 2 – Organizational failure; 3 – Lack of market; 4 – Lack of profit)

8. Does your SHG provide personal loan to its members? (Yes-1;No-0)
9. If yes Max Loan Amount.....
10. Whether your group has got any financial assistance (Yes-1;No-0)
11. If yes, which agency(Government-1; Semi-Gov-2, NGO-3,
Others.....-4

4. Mahatma Gandhi National Rural Employment Guarantee Act (MNGEGA)

1. Do you possess job cards under MGNREGA Scheme(Yes-1; No-0)
2. If yes year.....
3. How many work days you worked in
2014.....2013.....
4. Does MGNREGA provide (Rank main
here).....
 - i. (Savings.....; Clearing debts.....; Consumption
Purpose.....; Educational Purpose.....;
 - ii. Others.....)
5. Would you like to have more work days in a year?(Yes-1/No-0)
6. Would you find the work under MGNREGA tough/tiring?.....
.....(Yes-1; No-0)

5. ICDS (Integrated Child Development Scheme)

1. Whether any of your family members is eligible under ICDS programme? (Yes-1/No-0)
2. If yes, are you benefited from the programme? (Yes-1; No-0)

Health Schemes

1. How often following members visit your area? (Code 6; Very often -1; Often -2; don't know-3 rarely-4; Very rarely-5)

No		Code6
1	ST/SC Promoters	
2	Panchayath members	
3	ASHA Workers	
4	Tribal Extension Officers	
5	Mobile Medical Units	
6	Anganawadi Workers	
7	Junior Public Nurses	

2. What are the main facilities you availed from Government Hospitals

No		Code6
1	Free Medicine	
2	Free Diagnosis	
3	Free Consultation	
4	Free –food	
5	Cash Benefit for bystander	
6	Travelling Expenses	
7	Free Immunization	
8	Counseling and awareness camps	

3. Do you find any difficulty in accessing health care from Government Hospitals

No		Code6
1	Remoteness	
2	Not enough transportation facility	
3	High transportation cost	
4	High cost of medicines	
5	High diagnostic charges	
6	Difficulty in being away from home	
7	Difficulty in looking after other family members	
8	Difficulty in looking after the livestock at home	
9	Concerned about the loss of earnings (wage)	
10	Concerned about the bribe that has to be given	

4. Whether you have been denied any treatment at Government hospitals.....(Yes-1; No-0)
5. If yes, what is the reason.....
6. Whether there had any delivery during the last 5 years (Yes-1; No-0)
7. If yes the place of delivery.....
(Hospital-1; Relatives home-2; Home -3; Other places.....4)
8. Status of the child.....
(Healthy-1; Undernourished/weak-2; Dead-3, Others.....4)
9. Status of Mother
(Healthy-1; Undernourished/weak-2; Dead-3; Others.....4)

Current Living Conditions

1. Perception On the current living conditions

No	Codes (Very good-1; good-2, average-3; Bad-4; Very bad-5)	Code
1	Housing	
2	Sanitation Condiotpn	
3	Drinking water availability	
4	Public Transportation Facility	
5	Livilyhood options	
6	How do you assess the traveling facility	
7	Sufficiency of land ownership	
8	Environmental Sustainability	
9	Rate your non tribal neighbours	
10	Health care provisions (nearest)	
11	Clreanliness of your surroundings	
12	Rationing Provisions	
13	Electricity provisions	
14	Educational facility	
15	Foof availability	

6. Perception towards health, education and employment

No.	Codes (Strongly agree-1; Agree-2; Don't know-3; Disagree-4; Strongly Disagree-5)	Code
1	Education helps the children to face their life with confidence	
2	Better education can create better employment opportunity	
3	Conditions at home is not satisfactory to pursue education	
4	It is inevitable to have hygienic home and surroundings for better health	
5	Good food is necessary for good health	
6	Pure drinking water (boiled)is inevitable to keep you healthily	
7	Proper use of latrines is necessary to keep you as well as your family members healthy	
8	Know that open air will contaminate the open water sources	
9	Do not want to part my traditional employment	
10	Livelihood options are limited for tribal communities	
11	The present work is tiring and need to change the employment	
12	Liquor consumption will create problems in society and as well as in family	
13	Know that use of liquor will lead to ill health and under productivity	
14	Would like to resist the use of liquor; but I am unable to do so	