

applicable to women workers also. It is therefore necessary to go into detailed analysis of sectoral characteristics of female work participation. Hence the next chapter provides the details of the spatial and temporal variation of women workers in the four different sectors in the study area.

CHAPTER TWO

GEOGRAPHICAL PROFILE OF THE STUDY AREA

2.1 Introduction

The land surface of the earth exhibits a myriad of combinations of physical and human elements so that no two parts are alike. In fact, many scholars consider this areal differentiation as the core theme of geographical research. Similarly, in his quest for betterment of the living condition, man always tries to bring changes or modifications to the land surface because he is a terrestrial animal. Any development activity logically is beset with a number of problems and hence planning an effective strategy to tackle these problems is the foremost task of any Government.

Academic research usually centres on one focal theme and tries to analyse it in depth. The same is true for geographical research also. Any phenomenon considered under the banner of geographical research is pinned to a particular region or area, which in turn have specific combination of physical and human elements. Thus, it becomes basic for any geographical research to know about the specific physical and demographic setting of the study area before undertaking a detailed investigation of a confronting problem. Falling in line with this argument, an attempt is made in the present chapter to explain the physical,

demographic and other dimensions of the study area namely Palakkad district.

2.2 Location

Palakkad district is located between 10° 20' N to 11°14' North latitude and 76° 20' E to 76° 54' East longitude (Fig 2.1). The district shares borders with Malappuram district in the North and Northwest, Trichur in the South and Southwest and Coimbatore district of Tamil Nadu in the East. It is situated almost at the centre of the State, sprawling over the midland-plains and mountainous highlands. Out of the 14 districts of Kerala, Palakkad is one of the four districts which does not have a coastline.

2.3 Administrative Divisions

There are two systems of administrative set up in the district – Revenue and Local Self Government. Under the Revenue system, a district is divided into Revenue divisions, Taluks and Villages. However, for Local Administration, a district is divided into Statutory Towns and Panchayats. For the implementation of development activities Panchayats are grouped into Community Development Blocks.

Palakkad district consists of two Revenue Divisions – Ottappalam and Palakkad. Of the five taluks, Palakkad, Alathur and Chittur taluks form the Palakkad Revenue division and Ottappalam and Mannarkkad taluks form the Ottappalam Revenue division (Table 2.1). These five Taluks altogether comprise 163 villages. There are thirteen Development Blocks and four

Municipalities in the district. Ninety Panchayats are grouped to form the thirteen blocks. Alathur Taluk is composed of Alathur and Kuzhalmannam Blocks. Mannarkkad and Attappady blocks come under Mannarkkad Taluk. Chittur, Kollengode and Nenmara are the blocks under Chittur Taluk and Ottappalam Taluk includes Ottappalam, Pattambi, Srikrishnapuram and Thrithala blocks. Palakkad and Malampuzha come under Palakkad Taluk (Fig.2.2). A brief account of the Community development blocks is given at the end of this chapter.

Table 2.1
Palakkad District – Administrative Divisions

Revenue Divisions	Taluks	Community Development Blocks
Palakkad	Alathur	Alathur
		Kuzhalmannam
	Chittur	Chittur
		Kollengode
		Nenmara
	Palakkad	Palakkad
Malampuzha		
Ottappalam	Ottappalam	Ottappalam
		Pattambi
		Srikrishnapuram
		Thrithala
	Mannarkkad	Mannarkkad
		Attappady

2.4 History

Palakkad is one of the Revenue districts of Kerala. There are many views on how Palakkad (or “Palghat” the anglicised version) got its name. One view is that the word ‘Pala’ (barren land) together with ‘Kadu’ (jungle) gave the land its name. Yet others believe that it is connected with the ancient Jain temple in the town: ‘Pali’ being the sacred language of the

Jains, giving the land its name as ‘Palighat’, which over the years changed to Palakkad. However, most believed that the name Palakkad is derived from ‘Pala’, an indigenous tree which once densely occupied the land, and hence the name Palakkad or “the forest of Pala trees.”

Ancient history of Palakkad dates back to the Paleolithic period and several relics of the period have been found in the region. At the turn of the first millennium AD, for several hundred years the Perumals ruled the land. Later their governors called Utayavars took possession of this land and divided it among themselves. William Logan, the Scottish author of the celebrated Malabar Manual, suggests that one of the hubs of the Pallavas of Kanchi who invaded Malabar in the second and third centuries was Palakkad.

One of the earliest records about Palakkad has a chronicle of a war victory in A.D 988 when the king of Palakkad, Nedumpurayur Nadudayavar, stopped an invasion by the forces of the King of Kongunadu at Chittur. Even today, a festival is celebrated in memory of this victory at Chittur. The Nedumpurayur royal family was later known as Tarur Swaroopam and finally as Palakkad Raja Swaroopam.

In 1757, to check the invasion of the Zamorin of Calicut, the Raja of Palakkad sought the help of Hyder Ali of Mysore, who freed all parts of Palakkad invaded by the Zamorin. Eventually, Hyder Ali helped himself to Palakkad and later his son Tipu Sultan was the unquestioned ruler of this region. However, after his defeat to the British, Tipu ceded all his Malabar territories to the British. Following the treaty with the English East India Company in 1872, Palakkad formed part of the Malabar District of the Madras Presidency thereafter. As per the State Reorganization Act on 1st

November 1956, Kerala state was formed comprising of Malabar district and Kasargod taluk of South Kanara district of Madras State and Travancore-Cochin State. On 1st January 1957, Malabar district was trifurcated into three districts viz. Kannur, Kozhikode and Palakkad. Palakkad district thus formed consisted of old Valluvanad taluk, Palakkad taluk and portion of Ponnani taluk of Malabar district and Chittur taluk of erstwhile Travancore-Cochin State. On the same day, the Valluvanad taluk was bifurcated into Perinthalmanna and Ottappalam taluks. The old Palakkad taluk was trifurcated into Palakkad, Alathur and portion of Chittur taluk. The old Ponnani taluk of Malabar district was also trifurcated to form Ponnani, Chavakkad and portion of Tirur taluk. Of these, Palakkad district was formed comprising of six taluks viz. Perinthalmanna, Ponnani, Ottappalam, Palakkad, Alathur and Chittur. Consequent on the formation of Malappuram district on the 6th June 1969, the boundaries of Palakkad underwent some additional changes. Mannarkkad taluk was newly formed comprising of 19 reorganized villages of the erstwhile Perinthalmanna taluk. Parudur village of Tirur taluk was transferred to Ottappalam taluk. Perinthalmanna and Ponnani taluks which were part of Palakkad district, were transferred to Malappuram district. Palakkad district was left with five taluks viz. Ottappalam, Mannarkkad, Alathur, Palakkad and Chittur.

2.5 Physiography

The physiographic division shows that areas below 7.5 metres are considered as lowlands, areas between 7.5 and 75 metres as midland and above 75 metres are highlands. Accordingly, the district of Palakkad is divided into two physiographic divisions, midland and highland. Midland region consists of about 35 percent of the total area and consists of valleys

and plains. The remaining 65 percent area is under highland and consists of high mountains, extensive ravines, dense forests and the Palakkad gap region. The Western Ghats mountain range dominates the highlands in the eastern part of the district.

The highest point of the land is noticed in the northern part of the district and the land slopes towards southeast as well as southwest (Fig.2.3). The altitude varies from 15 metres in the west to 2500 metres in the northeast, which contain high mountain peaks, long spurs, extensive dense forests and tangled jungles. Mountains in Palakkad district are part of the Western Ghats, ranging from 914 to 2132 metres above mean sea level. This made an ideal fortress on the eastern side of the district. Anginada is the highest peak (2383metres) followed by Karimala (1998metres), Nellikotta or Padagiri (1585metres) and Karimala Gopuram(1440metres). Other important peaks with an average height of 1220metres are Kalladikode, Vellachimudi, Valiyavana ridge, Myanmudi, Valvachan, Malankunnu, Kavyali, Vembakavala and Pannimudi, while those with an average height of 940metres are Sheruneli, and Thottivare. Besides all these mountains, the plains are scattered with several hills also. The continuity of the majestic Western Ghats stretching over 100 kilometres is broken at Palakkad, known as Palakkad gap, with a width of 32 kilometres. On the two sides of the gap, giant Nilgiris and Anamalai are situated. The climate of the district is greatly affected by this gap as it enables the northeast winds to blow right up to the coast through the breadth of the gap. The plains are so fertile and productive that the district is the major rice producing region of Kerala.

2.6 Drainage

The district is blessed with a large network of drainage and dams are constructed across most of the rivers. The availability of ponds, tanks and reservoirs is an added advantage for the main economic activity of the district - agriculture. A brief description of the major rivers of the district is as follows:

Bharathapuzha, with its tributaries, sprawls across the entire district. The river takes its origin from Anamalai hills and flows through the districts of Palakkad, Malappuram and Thrissur before emptying into the Arabian Sea at Ponnani. Its four main tributaries are Gayatripuzha, Kannadipuzha, Kalpathypuzha and Thuthapuzha. The length of Bharathapuzha is 374.40 kms and its catchment area is 6186 sq.km. (Fig.2.4).

Gayatripuzha originates from Anamalai hills and after traversing through Kollengode, Nenmara, Alathur, Wadakkanchery and Pazhayannur, joins Bharathapuzha at Mayannur. This tributary has five main sub-tributaries, Mangalam river, Ayalurpuzha, Vandazhipuzha, Meenkarapuzha and Chulliyar.

Kannadipuzha is also known as Chitturpuzha or Amaravathipuzha. This river, which also starts from the Anamalai hills, flows through Tattamangalam and Chittur and joins the main river at Parli. There Palar, Aliyar and Uppar streams combine to this river.

Kalpathypuzha originates from the place called Chenthamarakulam in the hills, north of Walayar. Kalpathypuzha is formed by four streams, viz., Korayar, Varattar, Walayar and Malampuzha

Thuthapuzha, otherwise known as Pилanthol river, starts from the Silent Valley hills and joins the main river about two kilometres off Pallipuram

railway station. The important streams which feed this tributary are Kunthipuzha, Kanjirapuzha, Ambankadavu and Thuppanadipuzha.

Bhavani river originates from the Kunda mountains in the Nilgiris, makes a circuitous course through the Attappady valley and returns to the shadow of Nilgiri mountains. The catchment area of the Bhavani river within Kerala is 570 sq.km. yielding an annual run off 27,000 million cubic feet of water. Of the rivers of Kerala, Bhavani river is one among the three rivers, which flows towards Bay of Bengal.

2.7 Climate

The climate of the district is humid tropical and is unique due to the presence of the Palakkad gap. The district has a tropical climate with an oppressive hot season and plentiful seasonal rainfall. The district is endowed with both Southwest and Northeast Monsoons.

Summer season begins from February onwards and temperature rises steadily up to the end of May. March, April and May are the hottest months (Table 2.2). There is not much variation of temperature. It varies from 33.2°C in the month of May to 25.3°C in the month of December. When considering the maximum temperature sometimes it goes beyond 39°C. The normal maximum temperature recorded in the district varies from 28.1°C in the month of June to 36.6°C in the month of May. Moreover, the normal minimum temperature varies from 21.7 °C in the month of January to 25.1°C in the month of April. The average annual maximum temperature is 32.3 °C and the average annual minimum temperature is 23.4 °C.

The district receives on an average 2329 mm of rainfall annually. The annual rainfall varies from 1758 to 2849 mm based on long term

normal. The western part of the district around Mannarkkad receives the maximum rainfall (2849 mm) whereas in the rain shadow area of Chittur in the eastern part receives the minimum rainfall (1758 mm).

Table: 2.2
Palakkad District - Average Temperature and Rainfall

Months	J	F	M	A	My	J	Jy	A	S	O	N	D
Temperature °C	26.4	28.8	29.1	30.1	33.2	28.2	26.1	26.9	25.8	27.1	26.6	25.3
Rainfall in mms	8	9	27	87	161	477	633	349	165	249	136	28

Source: Meteorological Centre, Thiruvananthapuram

The Southwest Monsoon follows the summer and lasts until September. During this season Palakkad district gets abundant rainfall of about 70 percent of the total. Because of the influence of the Palakkad gap, the district experiences rainfall during Northeast monsoon season also. The northeast monsoon contributes about 18% of the total rainfall. January and February are generally dry. In addition, in December and March the amount of rainfall is very less.

A striking peculiarity of the district is that the district had to face the hot wind, which blows through the Palakkad gap from the burning plains of Coimbatore district of Tamil Nadu. The wind is predominantly from west and east during morning as well as in the evening hours. The wind speed is high during August (13.6 km. per hour). The humidity is higher during the monsoon period i.e. from June to September. It is around 90% during this period. All through the year, the humidity is high during the morning hours.

2.8 Natural Vegetation/ Forests

About 31 percent of the area of the district is under forest. Dense reserve forests are found in Palakkad, Mannarkkad and Chittur taluks of the district. Silent valley, Mannarkkad, Palakkad, Nenmara and Parambikulam are the forest divisions of Palakkad. The Mannarkkad forests, The Nenmara-Nelliampathy forest, Walayar, Dhoni and Attappady forests etc. are the major forest regions of the district. Palakkad division is further divided into Olavakkode Range and Palakkad Range. Similarly, Mannarkkad division is divided into Mannarkkad East Range and Mannarkkad West Range.

Silent valley forests are the only wet evergreen rainforests of Kerala. It spreads over an area of 9000 hectares and the thick forest is rich in rare species of plants and animals. In addition to that, semi evergreen, deciduous, semi deciduous and degraded forests also form the type of forests. Attappady, Mannarkkad, Malampuzha, Alathur, Nenmara and Kollengode blocks have forested areas.

2.8.1 Forest types

Natural forests are classified as follows

West coast tropical evergreen forests. It covers an area of approximately 50 sq.km. A wide variety of trees grows here. The top canopy consists of Pall, Punna, VEDIPLAVU, Kalpine, Aini, Kambakam, Vellapine, Vellagil, Pathiri, Nedunar, etc. Lower canopy predominantly consists of Vetti Kara, Nasagam, Marotti, Kurukutti, Cheru, Muthalvu, etc. Undergrowth comprises Antidesma, Calamas, Glycosmis, Kxora species, etc.

West Coast semi evergreen forests. Approximate coverage of area under this type of forest is 30 sq.km (Table 2.3). Both evergreen and moist

deciduous species are found in these areas. **Moist deciduous forests.** An extent of 70 sq. km of this type of forests is seen in Palakkad. Major species available in this area are Manjakadambu, Vaka, Pala, Elavu, Vembu, Rosewood, Avaal, Venteak, Venga, Teak, Maruthi and Pathiri.

Dry deciduous forests. Only 15 sq. km. of area is under this type of forest. Major species found in the top canopy are Teak, Vengai, Muzhukanjiram, Maruthi, Vaka, Mulluvenga, Rosewood, etc. Middle and lower canopy consists of Veppu (neem), Manjanathi, Sandal, etc. with moist patches of Dendorcalamus and Bamboosa arun -dinact. Undergrowth is mainly of grass.

Table 2.3
Palakkad District - Forests

Division	Reserved Forest	Vested Forest	Total
Mannarkkad	209.98	320.04	530.02
Palakkad	73.41	163.31	236.72
Nenmara	205.51	131.41	336.92
Parambikulam	274.14	-	274.14
Silent valley	89.51	-	89.51
Total	852.55	614.76	1467.31

At present from these forests about 2500 cubic metres of timber and 4000 tonnes of firewood are available every year. Bamboo and other minor forest products such as honey and wax are also available in small quantities.

2.9 Soil Types

There are five types of soil, viz laterite soil, virgin forest soil, black cotton soil, alluvial soil and brown hydromorphic soil (Fig2.5).

- Laterite soil - These are the most predominant soil type in the midland and gap areas. It is mainly seen in the major part of Ottappalam, Alathur, Chittur and Palakkad taluks. Laterite soils on high grounds are more compact when compared to the low lying areas.
- Virgin Forest Soil - It is seen in the northern portions of Attappady and also some portions of Nenmara block especially in forested areas. They are rich in humus and organic matter.
- Black Cotton Soil - It is seen in Chittur block and some portions of Malampuzha block, which is used for the cultivation of cotton. They exhibit mud cracks and have high water retaining capacity.
- Alluvial soils - Alluvial soils are found along the banks of Bharathapuzha and its tributaries. In the valley portion valley fill deposits composed of talus and scree material are observed.
- Brown hydro-morphic soil – This type of soil is distributed all over the district except in Attappady and Thrithala.

2.10 Natural regions

Based on the regional classification designed by the Census Organization, Palakkad consists of four natural regions. This classification is on the basis of topography, geology, climate, soils, and natural vegetation. They are Pattambi Undulating plain, Mannarkkad- Palakkad forested hills, Palakkad gap and Chittur Forested hills.

2.10.1. Pattambi Undulating plain.

The region lies in the extreme western portion of Ottappalam taluk. It makes its boundaries with Malappuram undulating plain in the north, Palakkad gap in the east, Trichur plain in the south and Malappuram coast in the west. This region with isolated knolls here and there slopes towards west. The maximum height (191mts) recorded in the western portion of Vilayur village in its eastern end and the minimum height (78mts) in the Challissery village in Ottappalam Taluk.

2.10.2. Mannarkkad - Palakkad Forested Hills:

This region comprising part of Mannarkkad and Palakkad taluks bounded by Tamil Nadu in the north and the east, Palakkad gap in the south and Nilambur forested hills in the west. This tableland is the continuation of the neighbouring Coimbatore plateau and it generally slopes towards the south and the west. The northeastern portion of this region slopes towards the east, which influences the flow of the Bhavani River towards the east. This forested hill has steep slope on the western and southern sides. The Escarpment found in the southern side has waterfalls and rapids from where the Palakkad gap begins. The maximum height (2383ms) of this region lies at its northern tip in Pudur village of Mannarkkad taluk and its minimum height (309 ms) lies at its southern portion in the Malampuzha village. However, the region has the average height between 1300 ms and 1400ms. This region also forms the catchment area of the Thuthapuzha, a tributary of Bharathapuzha. There is a predominance of semi-evergreen forest covered mainly by teak, sandalwood and bamboo.

2.10.3 Palakkad Gap

This region comprising of part of Ottappalam, Mannarkkad, Chittur and Alathur taluks is bounded by Mannarkkad- Palakkad forested hills in the north, Tamil Nadu in the East, Chittur forested hills in the south and Pattambi undulating plain in the west. The Palakkad gap has an average width of 30 km. and the Bharathapuzha and its tributaries viz. the Kalpathipuzha, the Walyar River, the Koraiyar River etc, drain this region. The Thuthapuzha also drains the region and joins the Bharathapuzha downstream. This region has a number of isolated residual hills. In the central part of this region a residual hill, Anangamalai (394mts), separated from the mountain chains, is located at Ambalappara village of Ottappalam taluk.

2.10.4 Chittur Forested Hills

This region comprises of part of Chittur and Alathur taluks. It lies in the southern portion of the district. It is bounded by the Palakkad gap in the north, Tamil Nadu in the east and Kodassery forested hills in the south and west. This is the continuation of the Western Ghats lying to the south of the Palakkad gap with a steep ascend. It slopes towards the south. However, some mountain peaks soar high here and there. The maximum height (1586m) lies in the northern part of the Nelliampathy Reserve Forest and the minimum height (459m) is found in the southern border of the Pambikulam Reserve Forest. In its northern section, waterfalls and rapids occur along the Escarpment. This region has semi evergreen forest.

So far a brief description of the physical dimension of the study area is given. Since the present investigation deals with the work participation

and the women agricultural workers, it becomes necessary to understand the demographic profile of the study area which is discussed below.

2.11 Demographic Profile

2.11.1 Population

The population of the district is 2617482 in 2001 with 1266985 males and 1350497 females. The district with 11.5 percent of the total geographical area of the State accommodates 8.2 percent of the population. Out of the 13 blocks, Palakkad, Pattambi and Mannarkkad together have more than one-third of the total population of the district. Being a highland area Attappady and Nenmara have the lowest share of population. Similarly, out of 13 blocks, Attappady, Kollengode and Kuzhalmannam are completely rural. In contrast, Palakkad, Pattambi, Ottappalam and Chittur have a higher concentration of urban population. These are the blocks where Municipal areas are also included. Other blocks have a limited share of urban population.

2.11.2 Growth of Population

Table 2.4 describes the growth of population in Palakkad district from 1901 to 2001, based on the Census of India 2001 Report. It may be noticed that the district had a similar population growth rate like that of

Table 2.4
Palakkad District – Growth of Population 1901 – 2001

Year	Population	Male	Female	Growth rate
1901	763917	374083	389834	
1911	819726	398459	421267	7.31
1921	853988	412781	441207	4.18
1931	941287	452770	488516	10.22
1941	1025058	492995	532063	8.90

1951	1214208	582388	631820	18.45
1961	1369508	659217	710291	12.79
1971	1685347	819576	865771	23.06
1981	2044399	994196	1050203	21.3
1991	2382235	1155822	1226413	16.52
2001	2617482	1266985	1350497	9.88



Fig 2.6

India as a whole before independence. Particularly, it witnessed the lowest growth rate of population between 1911 and 1921 (Fig. 2.6). However, after 1951 the growth rate of population is comparatively higher than the pre-independence period. The district experienced the highest growth rate between 1961 and 1971. The State of Kerala is one of the States where population growth rate is very low. The same trend is observed in Palakkad district, especially after 1971. It may be noted that for the last decade 1991-2001, growth rate of the district is only 9.88 percent.

2.11.3 Density of Population

One of the important indices of population concentration is the density of population. In 2001, the density population for Palakkad district as a whole is 584 persons per sq.km. Among the blocks, Palakkad block has the highest density (1419), because of the inclusion of urban area, which includes the Palakkad urban area also. Pattambi and Thrithala follow Palakkad with a density of 1226 and 1063 persons per sq. km. respectively (Table 2.5). Attappady has the lowest density of 94, followed by Nenmara with a density of 183 persons per sq. km. Attappady and Nenmara are the two blocks where forested area is more and major portion of the blocks comes under highland region. In general, the density of population is higher in the western part of the district, and decreases towards east (Fig. 2.7). However the lowest population density is in the extreme northern part and the next lowest is in the extreme southern part of the district. This very low population density in the north and south is due to the presence of high ranges and forestlands.

2.11.4 Sex-Ratio

Sex Ratio is defined as the number of females per 1000 males. In 1991, Palakkad district had a sex ratio of 1061 females per 1000 males and it has increased to 1066 in 2001. Among the blocks, the highest sex ratio is in Ottappalam, followed by Thrithala and Sreekrishnapuram (Table 2.5). These blocks have the sex ratio above 1100.

Table 2.5
Palakkad District – Density, Sex Ratio and SC/ST Population
2001

Blocks	% share to the total population of the district	Density Per sq.km.	Sex-Ratio	% SC/ST-Population
Alathur	9.7	777	1057	17.3
Attappady	2.5	94	987	45.6

Chittur	7.3	690	1028	17.6
Kollengode	4.7	759	1042	17.4
Kuzhalmannam	6.3	864	1065	26.5
Malampuzha	8.6	478	1023	12.1
Mannarkkad	11.1	670	1065	13.3
Nenmara	5.2	183	1046	18.0
Ottappalam	7.1	946	1120	16.6
Palakkad	12.5	1419	1066	15.8
Pattambi	11.8	1226	1096	14.9
Sreekrishnapuram	6.2	738	1106	21.1
Thrithala	7.0	1063	1110	18.5
Palakkad District	100	584	1066	17.6

Source: Census of India; Kerala Series: 1971, 1991 & 2001

Table 2.6
Palakkad District - Literacy - 2001

Blocks	Percentage Literates		
	Total Literacy	Male Literacy	Female Literacy
Alathur	82.6	89.2	76.4
Attappady	67.0	72.9	61.0
Chittur	72.7	80.9	64.7
Kollengode	74.7	82.2	67.5
Kuzhalmannam	80.5	88	73.7
Malampuzha	79.6	86.7	72.7
Mannarkkad	87.9	91.8	84.3
Nenmara	79.8	87.5	72.6
Ottappalam	88.5	91.8	85.6
Palakkad	85.3	91.0	80.1
Pattambi	89.1	92.2	86.4
Srikrishnapuram	89.5	92.7	86.6
Thrithala	88.4	91.9	85.3
District	84.4	89.5	79.6

Source: Census of India; Kerala Series: 1971, 1991 & 2001

Only Attappady has a negative sex ratio of less than 1000 females per 1000 males. It may be noticed that the sex ratio is comparatively lower in the eastern part of the district (Fig. 2.8).

2.11.5 Scheduled Castes and Scheduled Tribes

Higher proportion of Scheduled caste and Scheduled Tribe (SC/ ST) population indicates the lower economic and social development of a region. This is evident from Table 2.5, which exhibits the block wise distribution of SC/ST population in the district. Nearly half of the population of Attappady comprises of Scheduled Caste and Scheduled Tribes. Among this Scheduled Tribe constitute the major share. Kuzhalmannam and Srikrishnapuram also have more than one-fifth of their total population belonging to SC/ST (Fig. 2.9). Malampuzha, Mannarkkad and Pattambi have a comparatively lower share of SC/ST population, which is less than 15 percent of their total population.

2.11.6 Literacy

In 2001, the literacy rate of the district is 84.4 percent with a break up of 83.6 percent of rural and 89.3 percent for urban. In 1991, the rural and the urban literacy rates of the district were 80.2 percent and 86.87 percent respectively.

In 2001, highest literacy among the blocks is reported in Sreekrishnapuram (89.5), followed by Pattambi (89.1), Ottappalam (88.5) and Thrithala (88.4). Palakkad and Mannarkkad also have above average literacy rate (Table 2.6). All these blocks are located in the western part of the district. Lowest literacy for both males and females is recorded in Attappady with less than 70 percent literacy (Fig. 2.10). Chittur, Kollengode Malampuzha and Nenmara have less than 70 percent total literacy. Lowest literacy is in the northern part and it is decreasing towards east central part of the district. Since the present study is on women workers, the distribution of female literacy is shown in Fig. 2.11.

2.11.7 Occupational Structure

About 29.4 percent of the total population of the District constitute the main workers. However, intra block variation in the share is noticed. Among the 13 blocks the share of main workers to the total population varies from 19.8 percent in Pattambi to a maximum of 40.6 percent in Chittur block. On the whole female work participation is considerably lower than that of male work participation.

Among the four categories of workers, other workers account for the highest percentage of 53.9 with a break up of 63 percent for males and 32.9 percent for females. The second category in which the highest percentage of workers is engaged is agricultural labourers. It accounts for 33.6 percent of workers. Females are found to be engaged in agricultural labour in substantial numbers resulting in an exceedingly higher percentage of 56.2. The percentage of males engaged in agricultural labour is 23.7 and male cultivators account for a share of 9.9 percent. The percentage of females engaged in cultivation is only 7.2 percent. Only about 3.5 percent of workers are engaged in household industry. The percentage females engaged in household industry (3.8%) is more than that of males (3.3%). In short, the areas where the percentage of female workers exceeds male workers are agriculture labour and household industry. In other two categories male workers are predominant.

Since the present investigation is mainly focusing on female workers, a more detailed explanation of the occupational structure is elaborated in the subsequent chapter. It is not out of place to discuss a brief account of the various economic activities like agriculture, industries and other infra structure facilities of the District here.

2.12 Agriculture

Palakkad district is called the “Granary of Kerala”. It has the highest percentage of irrigated lands where mostly paddy is cultivated. Moreover, Palakkad gives higher output of paddy compared to other districts in Kerala. Even though rainfall is not evenly distributed, the district is served with a good network of water resources. The ground water utilizable for irrigation in Palakkad is also the highest among the various Districts of Kerala.

Agriculture is the main occupation of the people of the district. Major portion of the cultivable land is used for raising food crops. Paddy is the major crop of the District. Area under paddy is decreasing and cultivation of crops like coconut and rubber is increasing. Coconut, groundnut, cotton, sugarcane, pepper, banana and cashewnut are some of the major cash crops raised. Palakkad is the only district in the State where cotton and groundnut are cultivated. The importance of these crops is also decreasing. More and more area is brought under plantation crops. Among the plantation crops rubber occupies the major portion of the total area. Details of cropping pattern are explained in the subsequent part of this investigation.

2.13 Education

Palakkad is the one among the backward districts of the State in the field of education, with 84.4 percent literacy, while in Kerala as a whole nearly 90.9 percent of the population is literate. Anganwadis and balawadis are easily accessible to the population. There are 556 lower primary schools, 233 upper primary schools which provide elementary education to

the children. In addition there are 173 high schools and higher secondary schools, 12 Arts and Science Colleges, 6 Engineering Colleges, one Allopathic Medical College, 2 Ayurvedic Medical colleges, one Sidha Medical College and 2 Pharmacy Colleges functioning in the District.

2.14 Health

Total number of health centers in the district is 862 and the health centre density is 0.19 per sq. km. In addition to that there are about 308 family welfare centers in the study area. 1031 doctors are available for the total population in the Palakkad. Out of this, 554 are Allopathic doctors, 341 are Ayurvedic doctors and 136 are Homeopathy doctors. The total availability of beds for clinics in this district is 3812 .Out of this, 3537 beds are in Allopathic hospitals, 320 in Ayurvedic hospitals and 45 in Homoeopathy hospitals. The availability of bed per 1000 population is 1.5.

2.15 Industry

The Department of Industries and Commerce has identified the Kanjikode belt, connecting Palakkad and Coimbatore, as an area for industrial development. The excellent infrastructure facilities like NH 47, trunk railway line, nearby airport at Kochi, Kozhikode and Coimbatore, cheap availability of land, labour, power, water, etc. are the main attractions to industrialists.

The Industries Department acquired about 130 acres in Pudussery West village in the 1960s for an industrial development area. The I.T.I, Tata phone, Hendez Electronics, Carborandum, etc. are situated here. Later, the department acquired about 500 odd acres of land in Pudussery Central village for a new Industrial Development Area. The first wind farm

in the State for generating electricity from wind has been installed in Kanjikode. Wind farms are installed in Attappady also.

Olavakkode area also has an industrial estate since 1957. More than 15 industrial units are engaged in engineering and rubber goods, wooden furniture, electronic equipments, aluminium alloy utensils, stainless steel tableware, manufacture of splints and veneers, tiles, metal fabrication etc. At Edathara, there are units engaged in the manufacturing agricultural implements. Ottappalam in Palakkad district is the centre of match and veneer industry. Shornur has a Government press and an industrial estate. Established in 1996, the industrial estate has units making agricultural implements, iron castings, household articles, pharmaceuticals, cutlery, cycle tyres and tubes, vaccum pumps, etc.

2.16 Transport Network

2.16.1 Roads

The district has a good network of roads. Two National Highways are passing through the district. They are NH-47 and NH- 213. NH-47 has a length of about 67 kilometres while NH-213 stretches from Palakkad to Kozhikode covering a distance of 141km. Besides the National Highway, there were about 431 km. of State Highways, 794 km. of major district roads and 42.4 km. of Village roads under the control of Public Works Department. Thus the District has a good network of road connectivity.

2.16.2 Railways

Palakkad district came under railway map as early as 1861 when Kuttippuram- Pattambi line was opened for traffic in 1861. The main railway line connecting Kerala with Tamilnadu, Karnataka and Andhra Pradesh passes through the District giving it a very good accessibility.

Shornur and Palakkad are the two important railway junctions in the district. There is a Railway Divisional Headquarters at Olavakkode.

In the present investigation, Community Development Blocks are taken as the micro units for analysis. A brief note on the various blocks of the district is given below.

2.17 Community Development Blocks

Alathur: The block covers an area of 326.3 sq. km. There are 9 Panchayats and 17 revenue villages. As per 2001 Census, the population of the block is 253385 of whom 123172 are males and 130213 are females. 32.6 percent of the population is main workers. Out of the total workers only 19.4 percent are female workers. Paddy is by far the most important crop. The block has a good place in rubber cultivation as the area under rubber has been increasing over past few decades. Good irrigation facilities are available in this block. Canal irrigation is available from Mangalam dam. The Mangalam river passes through the heart of the block.

Attappady: Attappady is the second largest block in the district and is situated on the northern side; covering an area of 703.2 sq. km. Three panchayats are coming under this block. It is covered by hilly highland region and major portion of the block is under forest cover. The industrial development of this area depends upon the scientific utilisation of the forests and their products. It is reported that minerals like limestone, mica, dolomite and feldspar are likely to be available in this region. According to 2001 Census, the population of the block is 66171 persons with 33294 males and 32877 females. Density of population is only 94 persons per sq.

km. 36.3 percentage population are workers. Even though agriculture is the main activity the net area sown is only about 12 per cent of the total land.

Chittur: Chittur block has an area of 295.5 sq.km. The block is inclusive of the Chittur Tattamangalam Municipality. It is situated in the East central part of the district. It has 20 villages, six panchayats and one town. About 75 per cent of the people depend on agriculture for their livelihood. Industry employs less than 8 per cent and the remaining finds their employment in the tertiary sector. 40 percent of the total population is workers. The density of population is 690 persons per sq.km. Agriculture is the main occupation of the people of this block. A wide variety of crops is cultivating here, like, cotton, sugarcane, groundnut, ragi etc, in addition to rice and coconut. It is endowed with good irrigation facility from the Chitturpuzha project. There is hardly any forest in the block.

Kollengode: The block, located in the south central part of the district, covers an area of 163.3 sq. km. with seven villages and five panchayats. It is an important trading centre of the district. The population of the block in 2001 was 123908. 34.6percent of the total population is main workers. The density of population is 769 per sq.km. Agriculture is the main source of livelihood and employment for the majority. Paddy is the main crop, followed by groundnut and coconut. Nearly 70 per cent of the workers are employed in the primary sector whereas the secondary sector accounts for 15 per cent. Dairying is a significant subsidiary occupation.

Kuzhalmannam: Kuzhalmannam block covers an area of 192.1 sq. km. It contains 14 villages and 7 panchayats. The total population of the block is 166029 with 80991 males and 85638 females. The density of population is

864 per sq. km. The main workers constitute 33.2 percent of the population. The population primarily depends on agriculture for livelihood. Paddy is the most important crop covering a gross area of 21,500 hectares. Another important crop is mango. The main source of irrigation is canals.

Malampuzha: Malampuzha block is carved out of Kuzhalmannam, Palakkad and Kollengode blocks. It comprises of eight panchayats. It is located in the Northeastern part of the district with an area of 468 sq.km. Total population is 157301 with 77748 males and 79553 females. 36.3 percent of the population is workers. The density of population is 478 persons per sq. km. Most of the people are agricultural labourers. A large number of industrial establishments like the Indian Telephone Industries, Instrumentation Ltd., Fluid Control Centers, Malabar Cements etc., are situated in this block. A large number of other SSI units are also springing up in Kanjikode area. The famous Malampuzha Gardens is located here. Paddy is the major crop of the block, which sustains the majority.

Mannarkkad: Mannarkkad has one town, 16 villages and eight panchayats, covering 482.4 sq. km. The population is 289538 with 140238 males and 149300 females. The density is 600 persons per sq. km. The percentage workers are among the lowest with only 25.4 percent main workers. A network of rivers and rivulets traverses the block. Thuthapuzha and its tributaries are a source of irrigation. Coconut and rubber takes the place of the food crops like rice.

Nenmara: Situated on the southern part of the district, the block covers an area of 741.4 sq. km. Nenmara occupies the first place in area with a large portion of area under forests. The population is 135882 with 66398 males

and 69484 females. The block consists of hill ranges and hence the density of population is very low after Attappady. Exactly one-third of the total population is main workers. The area available for cultivation is limited due to the undulating surface of the hills. There is scope for development of dairying. Nelliampathy range is said to be ideal for rearing exotic breed of milch animals.

Ottappalam: The block, on the western of the district, covers an area of 197.7 sq. km. For the purpose of this investigation, Ottappalam Municipality is added to Ottappalam CD Block. Hence, it consists of nine villages and six panchayaths and one Municipality. The population is 187160 with a density of 946 persons per sq.km. The block has 26.7 percent main workers. It is the most prosperous part of the district. Agriculture continues to be a major economic activity. Paddy is the leading crop followed by tapioca, coconut and cashew nuts. Irrigated area is only 1,016 hectares with rivers contributing over 50 per cent followed by wells and tanks.

Palakkad: The block along with the Palakkad urban area covers an area of 248.8 sq. km. The district Head Quarters and the major urban area of the block are also included in this block. The total population of the block is 327231 and the density of population is 1407 persons per sq. km. The density is the highest in this block. Main workers composed of 30 per cent of the population. Agriculture occupies the foremost position in providing employment and as a source of livelihood.

Pattambi: Pattambi is one among the small blocks of the district and has an area of 251 sq. km. which includes the Shoranur Municipality also. The

block comprises of 11 panchayats, 13 villages and 2 towns. Agricultural sector continues to be the main source of employment. Apart from paddy, coconut occupies a very important place from the income point of view.

Srikrishnapuram: Srikrishnapuram covers an area of 219 sq. km. with 13 villages and 7 panchayats. Total population of the block is 161912 with 76872 males and 85040 females. This is the second densest block after Palakkad with a density of 1203 persons per sq. km. Main workers consist of only one-fourth of the total population. Paddy is the important crop followed by tapioca, cashew nut, vegetable and coconut. The importance of agriculture sector is decreasing and the tertiary sector gaining importance.

Thrithala: Thrithala, a trading centre, lies at the western part of the district and is the smallest among all the blocks. Having an area of 172 sq. km. it comprises of eight villages and seven panchayats. The population of the block is 183134 with 86805 males and 96329 females. Less than one-fourth of the population is main workers. Agriculture is the major economic activity and is one among the main source of employment. Paddy is the major crop in the block. The next important crop is arecanut.

The account given so far has brought into limelight the varied physical and demographic characteristics of the study area. Justification for taking the crucial issue of female workers as the central theme for the present investigation has also been brought out. Having understood the background of physical and demographic profile of the study area, it is logical to analyse the women work participation rate in Palakkad District, which is attempted in the next chapter.

LIST OF FIGURES