

OCCUPATIONAL STRUCTURE OF DEVIKULAM TALUK, IDUKKI DISTRICT, KERALA

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ABSTRACT

Occupation implies profession or trade. The study of occupational structure occupies an important position in the field of demography. The economic and social development of a region depends on the number of persons who are engaged in economic activity. The economic activity which decides the demographical structure and characteristics of the population especially family size, structure, density, literacy, growth rate and the integration of all these. Since it decides the economic strength of a population, such studies are very much important for policymakers and planners to formulate policies and plans for the socio-economic development of a region or country. The present study conducted in Devikulam taluk is situated on the western slope of the Western Ghats in Idukki district, Kerala. Since the entire population of the taluk is living in rural areas, it can be termed as a rural taluk. The main source of livelihood is plantation agriculture and allied activities. In spite of that, plantation (mainly tea), tea processing, jiggery processing, lemongrass oil extraction and tourism are the dominant economical activity in this study area. Occupational characteristics were mainly collected from Idukki district census handbook for the years 1971 to 2011. The occupational types are broadly classified into four categories. According to 2011 census, the study area having about 16% (177621) of the total population of Idukki District and is distributed in 12 villages. The share of the total population of Devikulam to the district has been remarkably decreased since 1981 and the growth rate in 2011 was -4.04. After 2001, most of the plantation workers in KDH village voluntarily retired and migrated to adjacent villages and Tamil Nadu. Due to that in 2011, five villages showing negative growth. Therefore, the study of occupational structure in Devikulam taluk is very much important to understand the population dynamics from 1971 to 2011.

KEYWORDS: Devikulam, Occupational Structure, Migration and Census Report

INTRODUCTION

The study of human resources is dynamic, not static. Population distribution, movements of population and its structure constantly change in time. Occupation may be defined as engaged in any economically productive activity. According to the census of India (1991) occupation not only involved in actual work but also effective in supervision and direction of work. It also includes unpaid work on a farm or in the family. Economic development and sophistication of a country mainly depend on occupation structure. It influences population aspects of a region. The occupational structure is play a vital role in the socio-economic development of an area, manifestation of a population composition and gives the ratio of the working and non-working population. Participation rates of labor force useful for an understanding of the economic growth of a region. In the occupational structure, primary activity indicates the low economic development while

the secondary and tertiary activity throws a light on economic advancement and social transformation. Since most part of the Devikulam taluk is covered by dense forests and plantation agriculture only 16% of the total area is devoted for habitation. The structures of the population in terms of population growth, density, literacy rate, etc, have been the result of not only the physiographic features but also the structural changes in the economy over several decades.

STUDY AREA

The high range mountain landscape of Devikulam Taluk is located on the western slope of the Western Ghats (Figure 1). It is the northern most taluk of the Idukki District. The study area stretches between the latitudes of $9^{\circ} 56' 56''$ N to $10^{\circ} 21' 29''$ N and longitudes of $76^{\circ} 45' 00''$ E to $77^{\circ} 20' 00''$ E covers an area of 1140 Km² and is inhabited by 1,77,621 persons (Census 2011). Devikulam taluk consists of 12 villages, nine panchayats, and two blocks. Munnar is a census town in this taluk. The landless laborers once migrated from Tamil Nadu are living in this study area mainly KDH and Pallivasal villages where tea plantation and its allied works are predominant. Kannan Devan Hills Plantation, TATA tea limited company and Harrison Malayalam tea plantation are the major tea producing companies who have expanded their services and accommodated more people in KDH and Pallivasal villages. These companies offer various amenities such as medical facility, school facility and home. Compare to male workers, female workers are highly engaged in tea plantation related works. General hospital situated in Munnar is the main hospital once it served good treatment to the company workers. But now the potentiality of this hospital is decreasing. Less number of specialized doctors and lack of facilities failed to treat serious casualties such as serious delivery cases, serious injuries are forced them to nearby hospitals mainly to Adimaly government hospital, Kottayam medical college hospital and Theni Medical college hospital. The tea estates are located away from their settlement. Road connectivity, accessibility and condition of roads are pathetic in nature. Auto rickshaw and jeep are the main modes of transport. So people are pushed to migrate mainly the adjacent state of Tamil Nadu.

METHODOLOGY

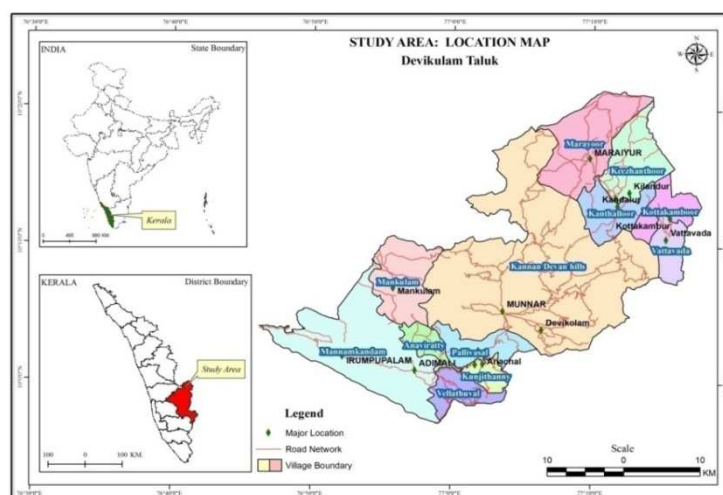


Figure 1: Study Area

In this study, occupational characteristics were analyzed using 1971, 1981, 1991, 2001 and 2011 census data published by the census department, Govt. of India. Geographic Information System (GIS) is used to prepare thematic maps for the study area. The census of India classified the occupational structure into four categories viz (i) cultivators, (ii)

agricultural laborers (iii) household industry (Manufacturing, processing, service and repair) and (iv) other workers. The same classification has been incorporated in this study.

OCCUPATIONAL STRUCTURE

The economic and social development of a region mainly depends on the number of active people who are engaged in the production of goods and services in a region. It is computed by taking the total number of persons in the labor force to the total population. The study area has a total workforce of 88246 in 2011 which constitutes 49.68 percent of the total population. Among the 12 villages, Kanthalloor has the highest workforce of (32.7%) which is followed by Mannamkandam (21.77%) and Vellathuval (7.13%) villages. There are large spatio-temporal variations in the percentage of the total workforce in the taluk. The following table.1 shows the total workforce of the taluk from 1971 to 2011. The graphical representation of a workforce is given in Figure 2.

Table 1: Devikulam Taluk Total workforce from 1971-2011

Year	Workforce
1971	50231
1981	57875
1991	80737
2001	86882
2011	88246

Source: District Census Handbook, Idukki: 1971-2011

A total workforce of the taluk was only 50231 in 1971 which increased to 88246 in 2011 marking a total increase of 75.7%. The highest growth in the workforce was reported during the period 1981-1991 when it increased by 40%. In fact, the workforce of the taluk is showing an increasing trend for the last 40 years. The following table.2 depicts the distribution of working force among different categories of workers from 1971 to 2011.

Table 2: Proportion of Workers in Different Classes from 1971 to 2011

Year	Cultivators	Plantation and Agricultural Labourers	House Hold Industries	Other Workers	Total
1971	14.38	66.57	0.74	18.30	100
1981	17.89	59.22	1.13	21.75	100
1991	13.23	67.56	1.02	18.18	100
2001	14.49	58.28	2.05	25.18	100
2011	14.17	52.65	1.07	32.11	100

Source: District Census Handbook, Idukki: 1971-2011

Village Wise Distribution of Workforce

According to the given data, in 1971, the highest proportion of the workforce was reported in KDH (Table.3). It accounted for 52.78% of the workforce of the taluk. KDH was followed by Mannamkandam (16.3%) and Vellathuval (12.48%) with a workforce of only 0.89%, Kottakambur ranked last in the year of 1971. Among the villages, the highest proportion of cultivation was reported in Mannamkandam (37.6%) and Vellathuval (25.20%)

Table 3: Occupational Structure 1971

Sl. No	Village	Cultivators	Agriculture Labourers	Household Industries	Other Services	Total
1	Mannamkanadam	2719(33.21)	3925(47.94)	180(2.20)	1364(16.66)	1568(100)
2	Vellathuval	1821(29.04)	3160(50.39)	53(0.85)	1237(19.73)	6912(100)
3	Pallivasal	443(9.78)	2749(60.70)	48(1.06)	1289(28.46)	5167(100)
4	KDH	173(0.65)	21777(82.14)	70(0.26)	4491(16.94)	20,794(100)
5	Marayur	474(26.41)	729(40.61)	8(0.45)	584(32.53)	3397(100)
6	Keezhanthoor	274(31.86)	506(58.84)	1(0.12)	79(9.19)	1822(100)
7	Kanthalloor	511(52.73)	336(34.67)	7(0.72)	115(11.87)	1978(100)
8	Kottakambur	272(60.44)	178(39.56)	0(0.00)	0(0.00)	635(100)
9	Vattavada	538(81.76)	80(12.16)	5(0.76)	35(5.32)	1302(100)
Devikulam Taluk		7225(14.38)	33440(66.57)	372(0.74)	9194(18.30)	50231(100)

Source: District Census Handbook, Idukki-1971

Table 4: Occupational Structure 1981

Sl. No	Village	Cultivators	Plantation and Agricultural Labourers	Household Industries	Other Services	Total
1	Mannamkandam	3498(22.04)	6983(44.01)	388(2.45)	4999(31.50)	15868(100)
2	Vellathuval	2142(30.99)	2966(42.91)	58(0.84)	1746(25.26)	6912(100)
3	Pallivasal	516(9.99)	1104(21.37)	34(0.66)	3513(67.99)	5167(100)
4	KDH	1462(7.03)	17756(85.39)	108(0.52)	1468(89.68)	20794(100)
5	Marayur	556(16.37)	2280(67.12)	43(1.27)	518(15.25)	3397(100)
6	Keezhanthoor	752(41.27)	965(52.96)	11(0.60)	94(5.16)	1822(100)
7	Kanthalloor	449(22.70)	1350(68.25)	6(0.30)	173 (8.75)	1978(100)
8	Kottakambur	175(27.56)	443(69.76)	8(1.26)	9(1.42)	635(100)
9	Vattavada	806(61.90)	427(32.80)	0(0.00)	69(5.30)	1302(100)
Devikulam Taluk		10356(17.89)	33,274 (59.22)	656(1.13)	12589(21.75)	57875(100)

Source: District Census Handbook, Idukki-1981

Table 5: Occupational Structure 1991

Sl. No	Village	Cultivators	Plantation and Agricultural Labourers	Household Industries	Other Services	Total
1	Kuttapuzha	2628(31.10)	3840(45.45)	220(2.60)	1761(20.84)	8449(100)
2	Mankulam	786(30.70)	1426(55.70)	11(0.43)	337(13.16)	2560(100)
3	Mannamkandam	2558(24.76)	4316(41.77)	447(4.33)	3012(29.15)	10333(100)
4	Anaiviratty	269(13.05)	1442(69.93)	13(0.63)	338(16.39)	2062(100)
5	Vellathuval	1224(26.45)	1934(41.79)	58(1.25)	1412(30.51)	4628(100)
6	Kunjithanny	686(17.09)	2257(56.24)	19(0.47)	1051(26.19)	4013(100)
7	Pallivasal	274(7.11)	2397(62.23)	13(0.34)	1168(30.32)	3852(100)
8	KDH	209(0.62)	28813(86.08)	12(0.04)	4437(13.26)	33471(100)
9	Marayur	451(11.12)	2942(72.55)	11(0.27)	651(16.05)	4055(100)
10	Keezhanthoor	336(17.00)	1503(76.06)	7(0.35)	130(6.58)	1976(100)
11	Kanthalloor	583(18.08)	2368(73.45)	12(0.37)	261(8.10)	3224(100)
12	Kottakambur	372(43.16)	451(52.32)	0(0.00)	39(4.52)	862(100)
13	Vattavada	310(24.76)	858(68.53)	3(0.24)	81(6.47)	152(100)
Devikulam Taluk		10,686(13.23)	54,547(67.56)	826(1.02)	14,678(18.18)	80,737(100)

Source: District Census Handbook, Idukki- 1991

Cultivators were lowest in KDH (2.39%) village. KDH has the highest proportion of agricultural laborers of 65.12% followed by Mannamkandam (11.73%) and (9.45%), Vattavada village recorded the lowest proportion of agricultural laborers of only 0.239%. At the same year, Kottakambur had no household industrial workers. Household industrial workers mostly concentrated in Mannamkandam (48.38%) village. Workers in other services were mostly inhabited in KDH where it accounted for 48.8%. It was followed by Mannamkandam village (14.84%).

The table.3, 4 and 5 made it clear that the proportion of cultivation remained more or less the same during the period from 1971 to 2011. It was 14.35% in 1971 which increased to 17.9% in 1981. The proportion of cultivation recorded a negative growth in 1991 when it reached from 17.9% in 1981 to 13.2% in 1991. It again increased to 14.49% in 2001. At present, it contributes 14.17% a dramatic change occurred in the composition of agricultural laborers to the total workforce. Agricultural laborers constituted more than half of the workforce 66.57% in 1971 and 67.56% in 1991. But thereafter it decreased abruptly and reached 24.3% and 29.4% respectively in 2001 and 2011. Other workers include workers in industries other than household industry, workers in construction, transportation, communication, and storage and government employees. Other workers have increased from 59% in 2001 and 60.35% in 2011. This is an indicator of the development of the economy and society of the taluk. Now the economy of the taluk is more tilted to tertiary activities rather than embedded in agricultural operation. A notable feature of the occupational structure of the taluk is the stationery growth of the household industry workers. They constituted only 0.74% of the total work force in 1971, 1.13% in 1981 and 1.02% in 1991. During the year 1981 also Mannamkandam remained in the top position in terms of the percentage of total cultivators. Nearly 33.8% of the cultivators lived in this village. The least proportion of cultivators was lived in Kottakambur village where it forms 1.7%. Agricultural laborers were thickly concentrated in the villages of

Mannamkandam (40.85%) and Vellathuval (17.35%). It was very sparse in the Vattavada village (2.5%). In the year 1981 KDH Village had the highest share workers in other services which constituted 62.6% of the total other workers in the taluk. At the same time, Kottakambur had the lowest percentage share of 0.03% in the workers in other services (Table.4).

The condition was changed during the period 1991 when Kuttapuzha replaced Mannamkandam in the total share of cultivators. The lowest share of cultivators was reported at KDH village. But in terms of total agricultural laborers, with a percentage share of 52.3% KDH village ranked top (Table.5). Agricultural laborers were very thinly distributed in the Kottakambur village when it was only 0.82%. Household industry workers were mostly found in the Mannamkandam village (54%). Nearly 30.22% of the workers in other services were concentrated in KDH. The lowest proportion of other workers was recorded in Kottakambur village (0.26%).

Table 6: Occupational Structure 2001

Sl. No	Village	Cultivators	Plantation and Agricultural Labourers	Household Industries	Other Workers	Total
1	Anaviratty	512(20.33)	899(35.69)	12(0.48)	1096(43.51)	2519(100)
2	Kanthalloor	1170(26.76)	2731(62.45)	11(0.25)	461(10.54)	4373(100)
3	KDH	1324(3.87)	29834(87.22)	251(0.73)	2796(8.17)	34205(100)
4	Keezthalloor	251(13.96)	1087(60.46)	242(13.46)	218(12.12)	1798(100)
5	Kottakambur	518(37.45)	819(59.22)	4(0.29)	42(3.04)	1383(100)
6	Kunjathanny	1646(32.40)	1448(28.50)	84(1.65)	1902(37.44)	5080(100)
7	Mankulam	1311(31.22)	1427(33.98)	56(1.33)	1405(33.46)	4199(100)
8	Mannamkandam	2728(18.41)	4817(32.51)	420(2.83)	6853(46.25)	14818(100)
9	Marayoor	431(7.62)	3630(64.18)	563(9.95)	1032(18.25)	5656(100)
10	Pallivassal	737(13.80)	1382(25.88)	54(1.01)	3166(59.30)	5339(100)
11	Vattavada	395(25.35)	1045(67.07)	7(0.45)	111(7.12)	1558(100)
12	Vellathuval	1573(26.42)	1522(25.56)	59(0.99)	2800(47.03)	5954(100)
Devikulam Taluk		12596(14.49)	50641(58.28)	1763(2.05)	21882(25.18)	86882(100)

Source: District Census Handbook, Idukki- 2001

Table 7: Occupational Structure 2011

Sl. No	Village	Cultivators	Plantation and Agricultural Labourers	Household Industries	Other Workers	Total
1	Anaviratty	379(15.27)	1262(50.85)	16(0.64)	825(33.24)	2482(100)
2	Kanthalloor	396(10.87)	2162(59.35)	58(1.59)	1027(28.19)	3643(100)
3	KDH	1691(5.86)	25933(89.85)	228(0.79)	1011(3.50)	28863(100)
4	Keezhathoor	328(13.59)	1400(58.02)	25(1.04)	660(27.35)	2413(100)
5	Kottakambur	1308(77.72)	326(19.37)	14(0.83)	35(2.08)	1683(100)
6	Kunjithanny	1229(23.64)	1230(23.66)	44(0.85)	2696(51.86)	5199(100)
7	Mankulam	1279(25.77)	2260(45.54)	26(0.52)	1398(28.17)	4963(100)
8	Mannamkandam	2669(13.89)	4746(24.70)	313(1.63)	11486(59.78)	19214(100)
9	Marayoor	918(14.12)	3926(60.37)	81(1.25)	1578(24.27)	6503(100)
10	Pallivasal	505(10.05)	755(15.03)	23(0.46)	3740(74.46)	5023(100)
11	Vattavada	415(21.17)	1216(62.04)	19(0.97)	310(15.82)	1960(100)
12	Vellathuval	1391(22.08)	1249(19.83)	86(1.37)	3574(56.73)	6300(100)
Devikulam Taluk		12508(14.17)	46465(52.65)	933(1.07)	28340(32.11)	88246(100)

Source: District Census Handbook, Idukki- 2011

In the year 2001, Mannamkandam village had the highest share of cultivators and agricultural laborers of 21.66% and 22.81% respectively. The lowest proportion of cultivators was reported in Keezhanthoor (2.1%). On the other hand, KDH had the lowest percentage of agricultural laborers of 1.47%. Marayur for the first time ranked first among the villages in the share of household industry workers (31.9%). The lowest proportion of household industry workers were reported in Kottakambur village. An outstanding characteristic of the occupational structure of this period was that more than 60% of the workers in other services were from KDH Village. The village in the bottom position for other workers was Kottakambur (0.08%) (Table 6).

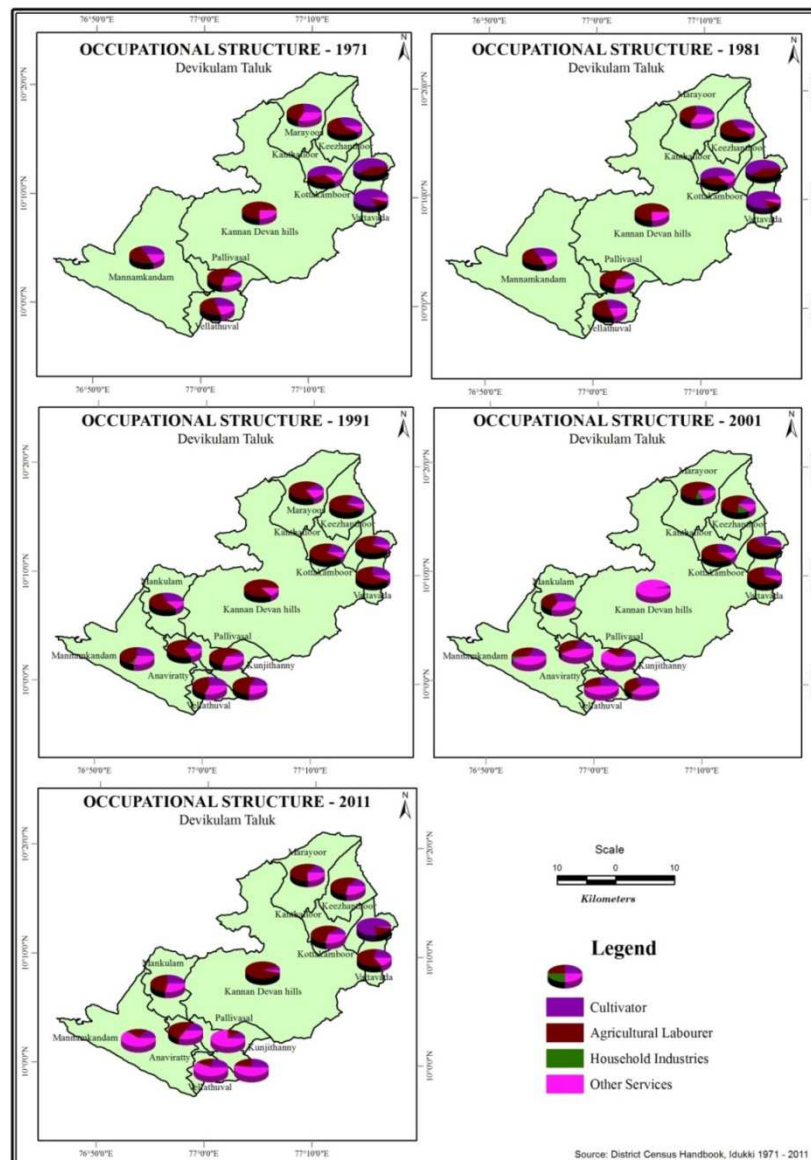


Figure 2: Occupational Structure

From the table.7, during 2011 census 21.33% of the total cultivators are living in Mannamkandam. It is followed by Kanthalloor (13.5%) and Vellathuval (11.12%) villages. Keezhanthoor village had the lowest proportion of cultivators at 2.62%. About 22% of the agricultural laborers are concentrated in Mannamkandam, 18.22% in Marayur and 10.49% in Mankulam villages. The lowest percentage share of agricultural laborers was observed in the villages of Kottakambur (1.5%) and Pallivasal (3.50%). Household industry workers are mostly found in Mannamkandam (33.54%) and thinly reported in Kottakambur (1.5%). The predominance of KDH village in accommodating the workers in other services has been broken by Kanthalloor in 2011 when it supported 48.7% of such workers and ranked first among the villages. It was followed by Mannamkandam village where nearly 22% of the other workers are working. The smallest share of other workers is recorded in the village Kottakambur (0.06%).

A number of small-scale industries are engaged in Jaggery preparation mainly along the Marayur and Kanthalloor main road. According to the Sugarcane Cultivator's Society, the area under sugarcane cultivation has fallen from 2,500 acres in 2002 to 1,200 acres in 2008. The production of Marayur Jaggery has fallen from 10000 tonnes in 2001 to 3,600

tonnes in the same period 2008 (Giji. K. Raman, 2008). As per data available in Krishibhavan, there was about 60% drop in area under sugarcane cultivation at Marayur and Kanthallor in the past one decade. From the recent survey, it states that at present only 1000 acres of land is under sugarcane. But a decade ago 2500 acres were under sugarcane cultivation (The Hindu, 2015). In the present time considerable changes in the areas cultivated by vegetables in Vattavada. The cultivable area dropped from 3,800 acres to 1,700 acres now. In addition to that, as many as 350 farmer families migrated to Tamil Nadu in the recent times (Giji K. Raman, 2013). Eucalyptus plantation also depletes soil nutrients and affects its productivity, fertility and microbial activity. It also causes for reducing groundwater level significantly (Directorate of Agricultural, 2013).

CONCLUSIONS

The occupation of a person can simply implies his trade, profession, type of work etc.. It reveals the nature of economic progress of any area. About 16% of the total population of Idukki District is concentrated in Devikulam Taluk and is distributed in 12 villages. KDH village maintained its first position in terms of the total population of the Taluk. But the population of KDH village is observed gradually decreasing from 47% in 1971 to 31% in 2011. It is due to the Voluntary Retirement Scheme (VRS) introduced by tea plantation companies and out-migration of the literate youths. Kottakamboor, Marayur, and Vattavada villages are having less population in all the decades. But these villages are shown with increasing growth rate. Population growth rate is showing a decreasing trend of 4.78 of 1991-2001 to -4 in 2001-2011. The most part of the Devikulam Taluk is unsuitable for cultivation because of its undulating terrain. 25.75% of area in Devikulam Taluk has devoted to agriculture. About 56 km² area is devoted to food crop cultivation in the study area. The black pepper occupied 450 hectares in Mannamkandam, 900 hectares in Vellathuval and Kunjithanni villages. The economy of Devikulam Taluk is mostly based on agriculture. Tea, coffee, rubber, areca nut and cardamom are the important plantation crops cultivated which earn foreign income too. The study area's cool climate makes a viable condition for vegetable cultivation, especially in Vattavada village. Cabbage, carrot, beans, potato and garlic are cultivated in the study area and it is known as "Vegetable Bowl of Kerala". The major problem is the high cost of production and low price realization. Severe drought largely affects the newly planted cardamom areas where the possibility of irrigation is low. When the trees in the cardamom areas were pruned, the green cover lost resulted in a change in atmospheric temperature, which negatively impacted the sustainability of cardamom cultivation. High labor cost, attacks of pests, jaggery imported from Tamil Nadu and labeled as Marayur Jaggery, low price rate, 4% tax for sugarcane cultivation, wild animal attacks, massive flowering in sugarcane, low groundwater level and climatic change are the big challenges faced in sugarcane cultivation in both villages. In the present day, sugarcane cultivation has dwindled and sugarcane field are now slowly making way for arecanut, coconut and other cultivations. Vegetable cultivation in Kanthallor and Vattavada had been badly affected by lack of rainfall. The cultivable area dropped from 3,800 acres to 1,700 acres now. In addition to that, as many as 350 farmer families migrated to Tamil Nadu in the recent times. These are some of the problems affected the study area's occupational structure and leads to forced migration. So government should take necessary initiatives to enhance the formers and laborers standard of living, increase the agricultural productivity and stop land conversion.

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