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POPULATION DYNAMICS OF WORKING CLASS IN COASTAL ADMINISTRATIVE UNITS OF KANNUR DISTRICT, KERALA

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ABSTRACT

The coastal systems of the world are crucially important to humankind and are under ever-increasing threat from activities within and outside the coastal zone. While human dependence on coastal systems has greatly increased in the last centuries, the impacts on the ecology of these habitats have become so severe that their productivity and functioning have been altered, mostly in the last few decades. Kannur district is one of the rapid urbanising districts in Kerala according to the 2011 census. As per the 2011 census the total population of Kannur is 2523003 which is about 7.56% of the total state population. The analysis of various data collected from secondary sources like Government of India Census report 2001 and 2011, Panchayat Level Statistics of Kannur District 2001 and 2011, Natural Resource Data Bank of Kannur District 2011, Official websites of Panchayats and Municipalities revealed that the cultivators and agricultural labourers have been considerably decreased in the various administrative units falling within the coastal zone of Kannur district. It is also noted that the number of cultivators and agricultural labourers who left the jobs outnumbered the people who have been added to the category during the period of investigation. Madayi panchayat has been identified as the unit with most number of people left land related jobs.

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INTRODUCTION

To many people, the coasts are the most scenic and interesting landscapes in the world. The coastal regions of the world attract more tourists than any other natural environment. The coastal zones, however, include some of our most polluted waters. They are heavily affected by a multitude of human activities, including rapid urbanization, port operations, off-shore oil production, tourism, agricultural run-off etc. The coast need protection from these human impacts and by understanding the natural processes that operate them, we can work toward solving future problems. (Gabler *et al*). Coastal regions, areas that are home to a large and growing proportion of the world's population, are undergoing environmental decline. The problem is particularly acute in developing countries. The reasons for environmental decline are complex, but population factors play a significant role. Today, approximately 3 billion people—about half of the world's population—live within 200 kilometers of a coastline. By 2025, that figure is likely to double. The high concentration of people in coastal regions has produced many economic benefits, including improved transportation links, industrial and urban development, revenue from tourism, and food production. But the combined effects of booming population growth and economic and technological development are threatening the ecosystems that provide these economic benefits. Unless governments and users of coastal resources take action, population pressure and the associated levels of economic activity will further degrade many coastal habitats (Liz Creel, 2003). Coastal zone, a triple interface of land, ocean and air is an important geographic entity both in terms of resources and human habitation. Over half of the world's largest cities are ports. As many as 22 cities, out of 35 largest cities are in the coastal area. Accommodating more than half of the world population within a distance of 60km from the shoreline the coastal zone is an area of multitudes of economic activity and various stake holders. It is a zone of intense human activity, which conflicts arise very often in the matter of resource use. (Srikumar Chattopadhyay, 2010). India has a

long coastline on its three sides. Most of the coastal districts of India are located in the plains of rivers and valleys. Majority of people are engaged in agriculture. The urban population is low, though there are many large and small towns and cities in this tract. Population pressure on these districts is very high due to establishment of ports and harbours and some industries (Jana, 2007). In addition, coastal zone is also the recipient of all water borne waste streams, primarily attributable to agriculture, its fertilizers and agrochemical and all treated and un-treated waste water the hinterland produce in their respective catchments (Kesava Ramprasad, 2006). As a general rule, the dynamics of population, viz, growth rate of population, changes in density and changes in occupational structure are noticed in almost all the coastal zone of Kannur district, Kerala state which forms the area for the present investigation. (Fig 1) The district lies between the North latitudes 110 40' and 120 48' and the East longitudes 740 52' and 750 56'. As per the 2011 census the total population of Kannur is 2523003 which is about 7.56% of the total state population. Kannur district have nine coastal panchayaths which are New Mahe, Dharmadom, Muzhippilangad, Edakkad, Pallikunnu, Azhikode, Mattool, Madayi and Ramanthali and Thalassery Municipality and Kannur Corporation. The density of population in these panchayats, the activities by the people and the stress exerted by these on the area namely infrastructure and tourism may cause the alteration of landforms in a rapid rate than its natural change over time. The facilities enjoyed by the people in these regions are also analysed and their problems are also need to be studied.

MATERIALS AND METHODS

The study is intended

- To understand the dynamics of population in the coastal administrative divisions of Kannur district, Kerala.
- To deter the administrative units which exhibit a unique trend in the matter of population dynamics.

To understand the dynamics of population in the coastal administrative divisions various sources of secondary data namely the Census reports of India -2001 and 2011, Panchayat level statistics of Kannur district 2006 and 2011, Natural Resource Data Bank, Kannur district 2011, Official websites of Panchayats and Municipalities are used. The collected data is compiled and statistically analysed. The results of the analysis has been illustrated through maps prepared using Arc GIS software.

ANALYSIS AND RESULTS

The population aspects like population in 2001 and 2011, growth rate of population, density of population, tourism centres in the coastal panchayat etc. have been analysed and it shows that there is a slight increase in the population over the period of ten years in the coastal panchayats of Kannur district (Table I).

Table 1. Population- Coastal panchayats, Kannur district

Name of Panchayat	Population 2001	Population 2011
Ramanthali	21937	25711
Azhikode	45951	47323
Dharmadom	29162	30804
Edakkad	36358	40818
Madayi	34979	35888
Mattool	26086	27806
Muzhappilangad	21949	23709
New – Mahe	16789	16303
Pallikkunnu	26965	27820
Thalassery municipality	99387	92558
Payyannur Municipality	68734	72111
Kannur Corporation	498207	1640986
Kannur District	2408956	2523003
Kerala State	31841374	33406061

All the panchayats have shown a slight increase in the population, while Thalassery Municipality is the only place we can see a decrease in the population (Fig 2). The population of Kannur Corporation shows a hike of upto 400% but according

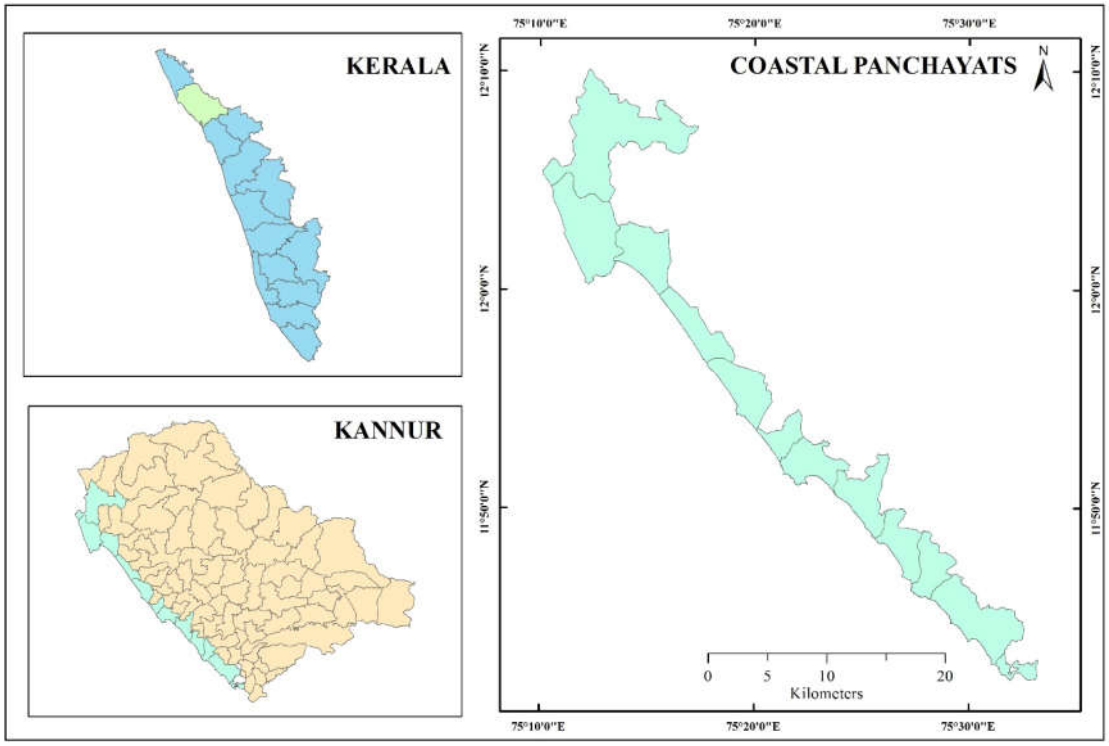

Fig. 1. Coastal Panchayats, Kannur district, Kerala

to the census, the revised definition of urban agglomerations in Kerala led to results for 2011 that are not comparable with previous census results and with agglomerations in other Indian states.

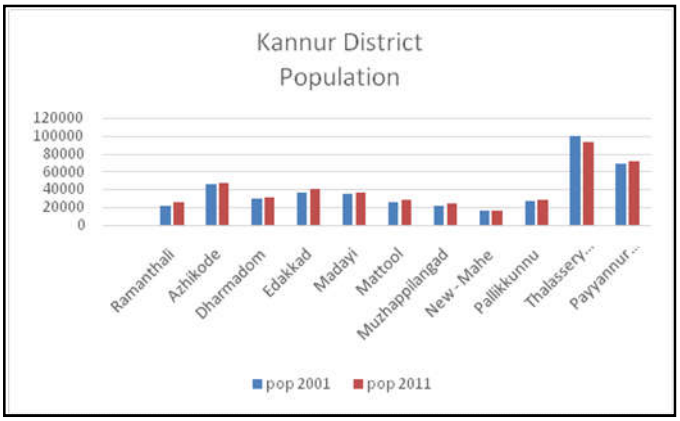

Fig. 2. Population- Coastal panchayats, Kannur district

Population Growth Rate

The rate at which the population exceeds over a particular time affects the natural equilibrium of the region.

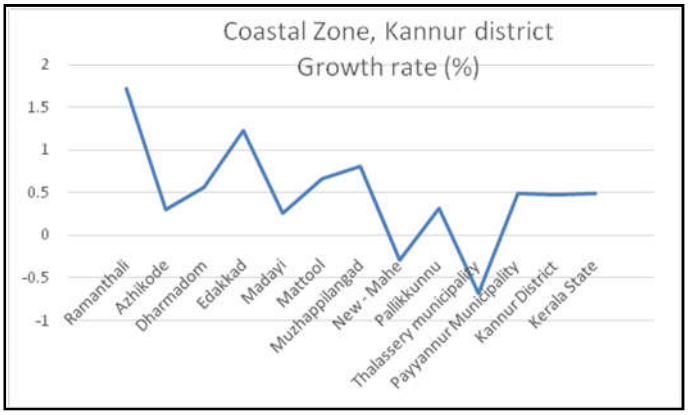

Fig. 3. Growth Rate, Coastal Zone, Kannur district

The density of the coastal panchayats show a huge difference with respect to the district density and state density. It means that, in general the coastal area is accommodating more than two times density that of the state. Kannur coastal is area has a diverse nature as there is rocky outcrops and platforms in the south(Thalasseri beach), while moving north there is hard driving beach at Muzhipilangad, a cliff at Payyambalam, a lot spit at Kavvayi, and again rocky outcrops at Ramanthali-Ettikulam beach.

Table 2. Density of population, Coastal zone, Kannur district

Name of panchayat	Area in sq.km	Population 2001	Population 2011	Density 2001	Density 2011
Ramanthali	29.99	21937	25711	731.47	857.31
Azhikode	16.04	45951	47323	2864.77	2950.31
Dharmadom	10.68	29162	30804	2730.52	2884.27
Edakkad	18.5	36358	40818	1965.29	2206.37
Madayi	16.71	34979	35888	2093.29	2147.69
Mattool	12.82	26086	27806	2034.78	2168.95
Muzhappilangad	7.19	21949	23709	3052.71	3297.49
New – Mahe	5.08	16789	16303	3304.92	3209.25
Pallikkunnu	6.9	26965	27820	3907.97	4031.88
Thalassery municipality	23.96	99387	92558	4148.03	3863.022
Payyannur Municipality	54.63	68734	72111	1258.17	1319.98
Kannur Corporation	73	498207	1640986	6824.75	22479.26
Kannur District	2971.12	2408956	2523003	810.790	849.17
Kerala State	38862.87	31841374	33406061	819.32	859.58

The growth rate gives sign of the causes which may be the reasons such exceeding growth rate if any.The growth of the regions shows wide disparity on a whole. If we exclude Kannur Corporation. The lowest growth rate of -0.28 is recorded in New Mahe while the highest growth rate of 1.72 is seen in Ramanthali which is followed by Edakkad with 1.23. If we make a comparison the growth rate of Kerala state for the last decade is 0.49 and that of Kannur district is 0.47 and from the analysis it is seen that out of the 13 administrative divisions studies six of them have a growth rate of more than the district and the state (Fig 3).

Density of population

The density of coastal panchayats shows an increase in the time. The highest density in 2001 was recorded in Thalassery Municipality which is followed by Pallikunnu and New- Mahe whereas the lowest density is recorded in Ramanthali panchayat. (Table II) While considering the density in 2011, the highest value is seen in Pallikunnu followed by Thalasseri Municipality which is the only division that shows a decline in the density. The lowest density (857.31) is recorded in Ramanthali panchayat, which stands odd with respect to other divisions which show density more than 1300. (Fig. 4)

Beaches like Kavvayi, Ramanthali, Pazhayangadi etc are the new spots whose tourism potentialities are explored in the last decade. The infrastructures made for the tourism purpose is also not less in number.

Main workers

Main Workers in the study area show both increase and decrease. Ramanthali and Payyannur shows high rate of increase along with Dharmadom, Edakkad, Madayi, Mattool, Muzhipillangand and New- Mahe. The interesting result is that Thalassery and Kannur Municipalities show a decrease in the main worker population along with Azhikkode panchayath (Fig. 5).

Cultivators have increased in seven administrative divisions whereas in four divisions the number of cultivators have decreased decadally and one division (Kannur Municipality) shows no variation. Though the number of cultivators increases in seven administrative units, the total number is actually decreasing. That means the sum of people who come to the fields in the whole area is more that 200% of loss of people in the fields. The condition of Agricultural Labourers is same as that of cultivators. The number of people who left the field is higher, even though eight out of twelve

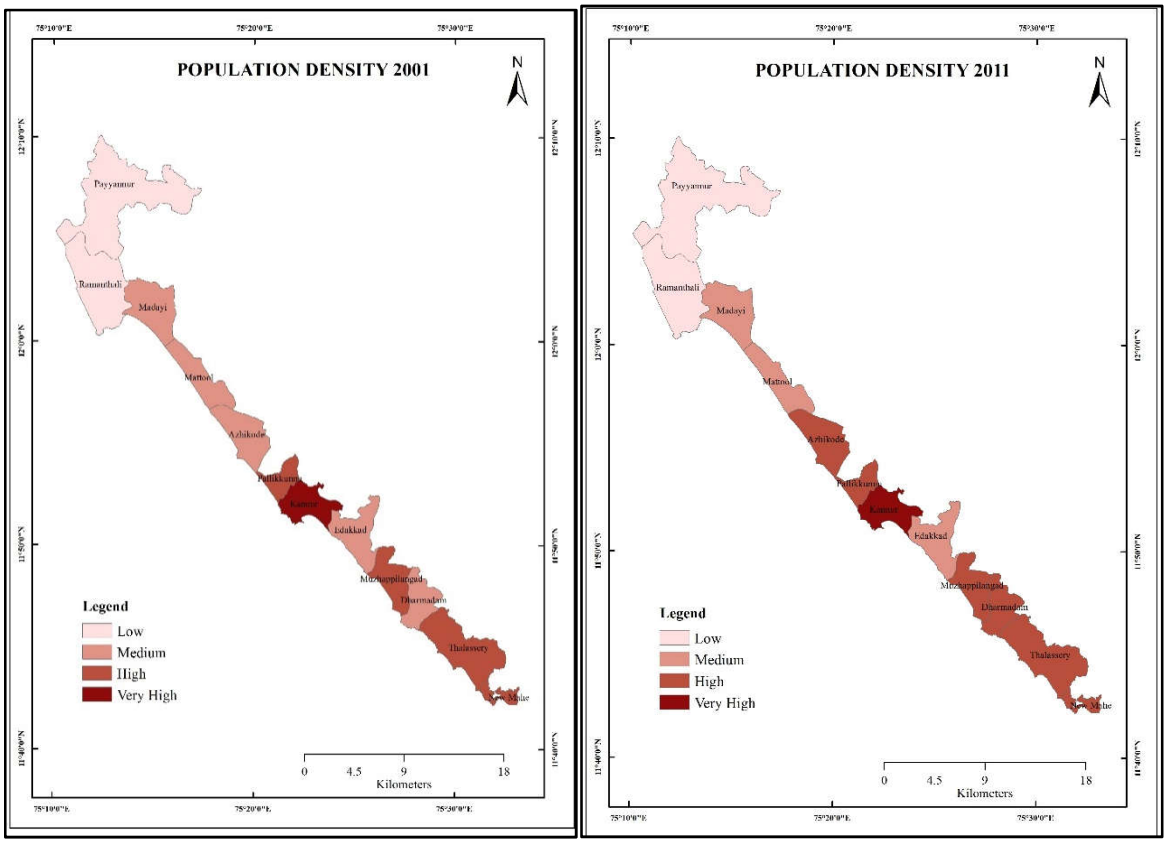

Fig. 4. Density of population, Coastal zone, Kannur district

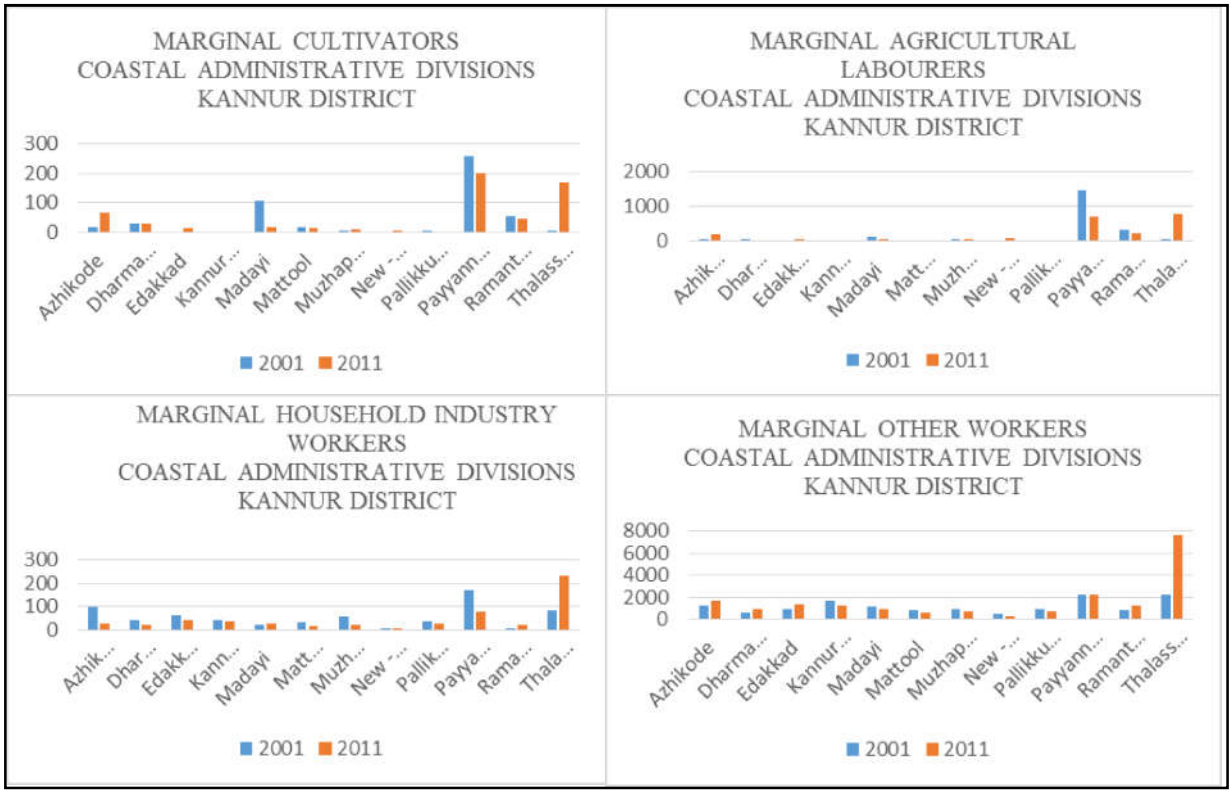

Fig. 5. Main Workers, Coastal zone, Kannur district

administrative divisions show an increase decadally. Muzhippilangad and Thalasseri have the highest values meanwhile Madayi with a decrease of 318 people from agriculture shows the sign of people's withdrawal from the field. Majority of the area shows an increase in other workers. Payyannur Municipality has the highest number of workers while Kannur has the lowest.

Payyannur recorded a decrease in the cultivators and household industry workers, which shows a trend in the activities of people. The same trend is seen in Madayi Panchayat. In the case of Payyannur the trend is not as serious as the area is a municipality and the activity will be such type but the trend in Madayi indicates some serious factors which force the people to leave the agricultural fields.

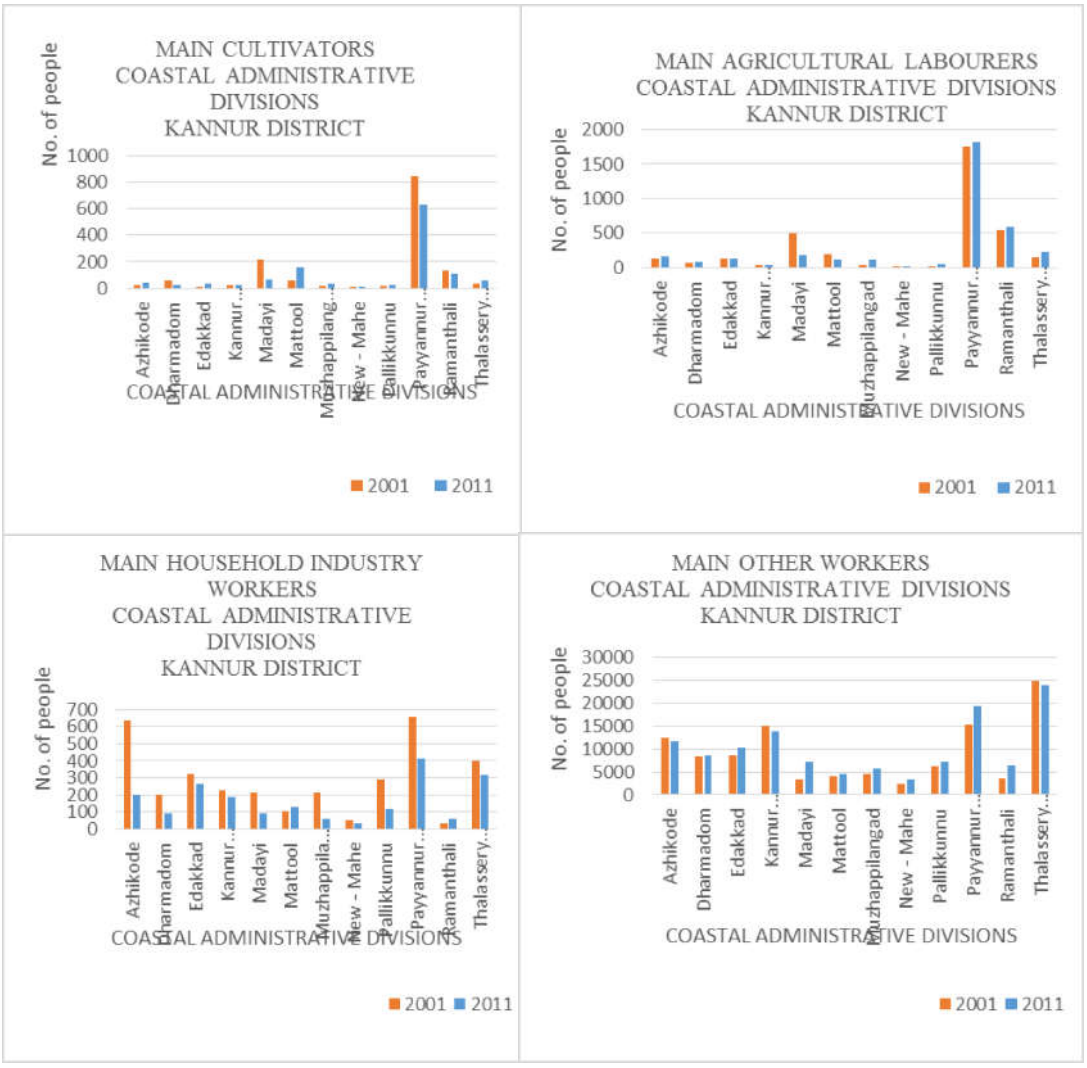

Fig. 6. Marginal Workers, Coastal zone, Kannur district

Marginal workers

Marginal Workers in the coastal administrative divisions of Kannur District has increased in five divisions (Azhikkode, Dharmadom, Ramanthali, Edakkad and Thalasseri municipality) while all other administrative divisions show a decrease in marginal workers. Thalassery recorded the maximum increase, while Payyannur municipality has the maximum decrease. (Fig. 6) Just like main worker population, cultivators in Madayi panchayat records the maximum loss in the decade. Payyanur municipaliy also records a decrease which seems to be normal with the condition of a town. The interesting thing is that Thalassery recorded more than 4 times increase in the number of cultivators decadally. Agricultutral labourers had a mixed response to the job in the past decade. The number of people increased in certain areas like Azhikkode, Edakkad and New- Mahe and Thalassery meanwhile areas like Payyannur, Ramanthali, Madayi show decrease in number. Household industry workers have increased in Thalassery, Ramanthali and slightly in Madayi and decreased in the rest of areas where Payyannur and Azhikkode show a great variation. People who have come into other workers group is high in Thalassery, Azhikode, Edakkad and Ramanthali while in all other places the number is decreasing. If we consider the whole marginal workers population, Madayi panchayat has a decrease in cultivators, agricultural labourers and others workers and a very slight increase in household industry workers. Thalssery municipality shows a tremendous increase in all working classesin the decade. But the number of total marginal workers have also increased by almost 400% and the proportion of people in each working class seems to be natural. But the case of Madayi seems not natural or normal as the cultivators have decrease by more than 400%.

DISCUSSION

On a whole the area where the highest number of people who actually left the land related jobs (cultivators and agricultural labourers) in case of both main and marginal workers is Madayi panchayat. The density of Madayi panchayat has increased from 2034 in 2001 to 2147 in 2011 and the growth rate is 2.6 in 2011 which is slightly below the average growth rate of the study area. The percentage of main workers in Madayi panchayat in 2001 was 5.8% and has slightly decreased to 5.7% in 2011. Percentage of cultivators in 2001 was 15.12, which has drastically decreased to 5.8 in 2011 and agricultural labourers have decreased from 13.72% to 5.02% which is highly alarming. Household industry workers has also decreased from 6.32% to 4.54%. The only increase is recorded in the percentage of other workers from 3.16 to 5.81, which can be considered as a slight increase as compared with the

rest of working classes. The condition of marginal working population is not so different from main worker population. The percentage of marginal workers of Madayi to the total study area has decreased from 8.25% in 2001 to 4.36% in 2011. Cultivators' percentages have decreased alarmingly from 20.73 to 3.21 in the past ten years. Agricultural labourer percentage has decreased from 5.41 to 2.05, household industry worker percentage from 3.49 to 4.71 with a slight increase and other workers from 8.47% to 4.66% is the current trend of marginal workers population in Madayi panchayat, in percentage with respect to the rest of study area. The statistics gives a clear information that cultivators and agricultural labourers have decreased alarmingly in both main and marginal workers in Madayi panchayat. But the interesting fact is that the loss of workers from these classes is not balanced by increase in household industry workers and other workers, which are also showing variations from the natural increase or decrease. This suggests that the loss of workers from direct land related activities in Madayi panchayat is not a sign of natural process of social upgradation. Madayi panchayat has been identified as a 'trend setter' in the outflow of cultivators and agricultural labourers. The interesting thing is that, irrespective of upgrading their jobs to the next level, that is household industry which is a usual process, the majority of people who left the field has gone to the other workers' group. In case of marginal workers also Madayi panchayat shows a decrease in cultivators and agricultural labourers. Unlike main workers, in marginal workers the people who left the field have not been fully upgraded to household industry workers or other workers.

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