



RESEARCH ARTICLE

A STUDY ON GENERAL LAND USE PATTERN IN THIRUVARUR DISTRICT, TAMILNADU, INDIA

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ABSTRACT

Land use means the surface utilization of all developed and vacant land on a specific point at a given time and space. This change may be due to two most probable reasons. Firstly, the requirements of the society may be the cause for bringing change in the land use. Secondly, the technological impact also promotes changes that an individual as well as the society is able to maximize the advantage. "Land use leads one back to the village farm and the farmer to the fields, garden, pastures, fallow land, forest and to the isolated farms lead as geography deals with spatial relationship between these aspects and planning (T.V. Freeman 1968)". It is due to the land use changes to meet the variable demands of the land by the society in its new ways and conditions of life. A Geographical Analysis on General Land Use Pattern in Thiruvavar District of Tamilnadu for the years between 2010 and 2015. Out of the total geographical area, 64% to 77% area occupies under Net area sown. Forest is identified only in Thiruthiraipoondi Taluk without any change.

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INTRODUCTION

Land use classifications are the systematic arrangement of land on the basis of certain similar characteristics mainly to identify and understand their fundamental utilities intelligently and effectively. Land-use is an important aspect of studies in agriculture geography. Several scholars have used the concept in many ways. Land classification is based largely on quantity and intensity of the use of land (Ali Mohammad 1978). Land is the basic, fixed and limited natural resource. Land plays the key role in the determination of man's economic activities as well as social and cultural progress. All agricultural, animal and forestry productions depend on the quality and productivity of the land. The entire terrestrial eco-system which comprises of soil, water and plant are survived on the land resource. It meets the demand of food, energy and other needs of livelihood. Climate, relief and geological formations of the land are very stable resources. Soils and water are moderately stable resources while the vegetation and related biological features are relatively unstable resources. It shows that all the natural resources are associated to the land resource. The growing pressure of population and the increasing variety of demands being completed on land resources. Therefore it is necessary to know the existing use of land at micro level in order to plan the optimum use of land.

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Census of India has classified land utilization in nine different categories. In the present study also they have been grouped into nine categories.

Study Area

Thiruvavar district is one of the 32 districts in Tamilnadu state of India. The district occupies an area of 2161 km. it lies between Nagapattinam district the east and Thanjavur district on the west and bounded by palk strait on the south. The district head quarter is at Thiruvavar town Thiruvavar is located at 10°26'0" N & 10 °56'40"N and 79° 15'0" E & 79 °55'40"E (Fig. 1.1).. The town is bounded by Sukumar river in the north, Valaiyar river in the south while the Odambokki river flows through the centre. The town has an average elevation of 3 metres (9.8 ft) from the sea level. The municipality covers an area of 10.47 km² (4.04 sq mi). Thiruvavar is situated at a distance of 300 km from Chennai, 24 km (15 mi) from Nagapattinam, 40 km (25 mi) from Karaikal, 40 km (25 mi) from Mayiladuthurai and 56 km (35 mi) from Thanjavur.

Aim

A Geographical Analysis on General Land Use Pattern in Thiruvavar District of Tamilnadu for the years between 2010 and 2015.

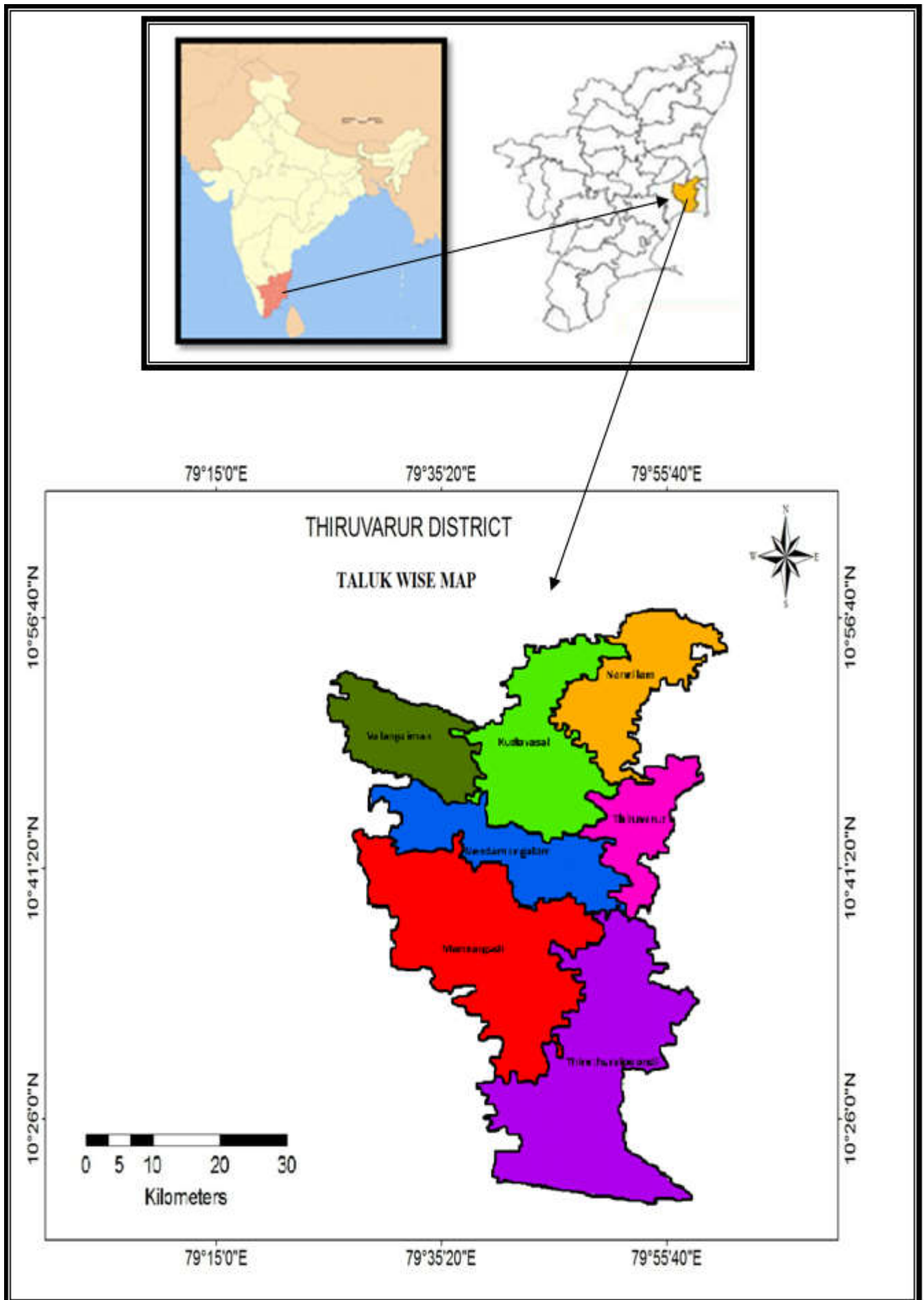


Fig. 1. Location Map of the Study Area

Table 1. General land use pattern in -2010-2011 (%) Taluk wise

Category	Forest	Barren and uncultivable land	Land put to non agricultural uses	Cultivable waste	Permanent pastures and other grazing land	Misc.tree crops and groves not included in the net area sown	Current fallows	Other lands fallow	Net area sown
Mannarkudi	-	-	22.4	0.3	0.4	1.1	3.5	1.7	70.3
Nidamangalam	-	-	18.7	0.5	0.6	0.9	5.7	2.3	71.3
Thiruthuraiipoondi	6.1	0.2	19.6	0.3	0.5	0.2	1.4	0.5	75
Thiruvarur	-	-	22	0.3	0.1	0.1	2.3	5.3	69.6
Nannilam	-	-	16.2	1.3	0.3	0.6	1.7	3.8	75.8
Kodavasal	-	-	17.2	0.7	0.05	1.9	1.8	8	70.3
Valangaiman	-	-	10.9	0.5	0.07	1.3	4.1	7.9	74.9

Table 2. Land use in Thiruvarur district-2011-2012(%) Taluk wise

Category	Forest	Barren and uncultivable land	Land put to non agricultural uses	Cultivable waste	Permanent pastures and other grazing land	Misc.tree crops and groves not included in the net area sown	Current fallows	Other lands fallow	Net area sown
Mannarkudi	-	-	22.4	0.3	0.4	1.1	0.6	3.1	71.7
Nidamangalam	-	-	19.2	0.1	0.7	0.9	0.3	1.5	77
Thiruthuraiipoondi	6.2	0.2	20.1	0.4	0.5	0.2	1.4	0.5	76.5
Thiruvarur	-	-	22	0.3	0.1	0.4	5.9	3.1	67.9
Nannilam	-	-	16.2	1.3	0.3	0.6	1.7	3.8	75.8
Kodavasal	-	-	17.2	0.7	0.05	1.9	1.8	8	70.3
Valangaiman	-	-	10.9	0.5	0.07	1.3	3.2	9.1	74.6

Table 3. Land use in Thiruvarur district-2012-2013(%) Taluk wise

Category	Forest	Barren and uncultivable land	Land put to non agricultural uses	Cultivable waste	Permanent pastures and other grazing land	Misc.tree crops and groves not included in the net area sown	Current fallows	Other lands fallow	Net area sown
Mannarkudi	-	-	22.4	0.3	0.4	1.1	0.5	3	72
Nidamangalam	-	-	18.9	0.1	0.6	0.9	5.4	1.8	71.9
Thiruthuraiipoondi	6.1	0.2	19.2	0.3	0.5	0.2	2	1.8	75.5
Thiruvarur	-	-	22	0.3	0.1	0.1	2.3	5.3	69.6
Nannilam	-	-	17.6	1.4	0.3	0.6	1.8	5.1	75.1
Kodavasal	-	-	17.2	0.7	0.05	1.9	2.9	7.1	69.7
Valangaiman	-	-	10.9	0.5	0.07	1.4	8.1	11.1	67.7

Table 4. Land use in Thiruvarur district-2013-2014(%) Taluk wise

Category	Forest	Barren and uncultivable land	Land put to non agricultural uses	Cultivable waste	Permanent pastures and other grazing land	Misc.tree crops and groves not included in the net area sown	Current fallows	Other lands fallow	Net area sown
Mannarkudi	-	-	22.4	0.3	0.4	1.1	0.6	2.6	72.2
Nidamangalam	-	-	18.9	0.1	0.6	0.9	0.6	4.7	75.9
Thiruthuraiipoondi	6.1	0.2	19.2	0.4	0.5	0.2	4.6	3.5	70.6
Thiruvarur	-	-	22	0.3	0.1	0.1	8.4	3.8	64.9
Nannilam	-	-	16.8	1.3	0.3	0.6	2.9	4.9	72.9
Kodavasal	-	-	17.2	0.7	0.05	1.9	4.5	6	69.3
Valangaiman	-	-	10.9	0.5	0.07	1.4	8.1	11.1	67.7

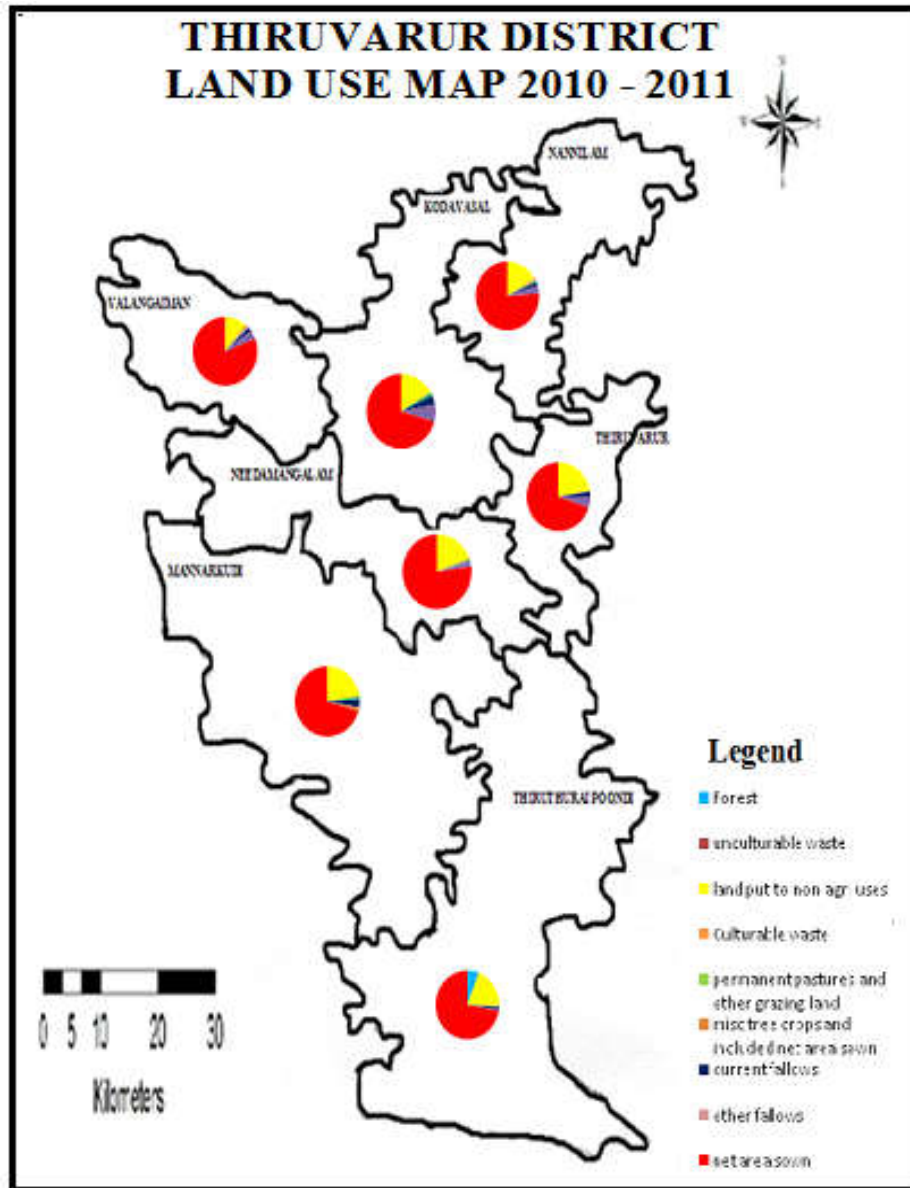


Fig. 2.

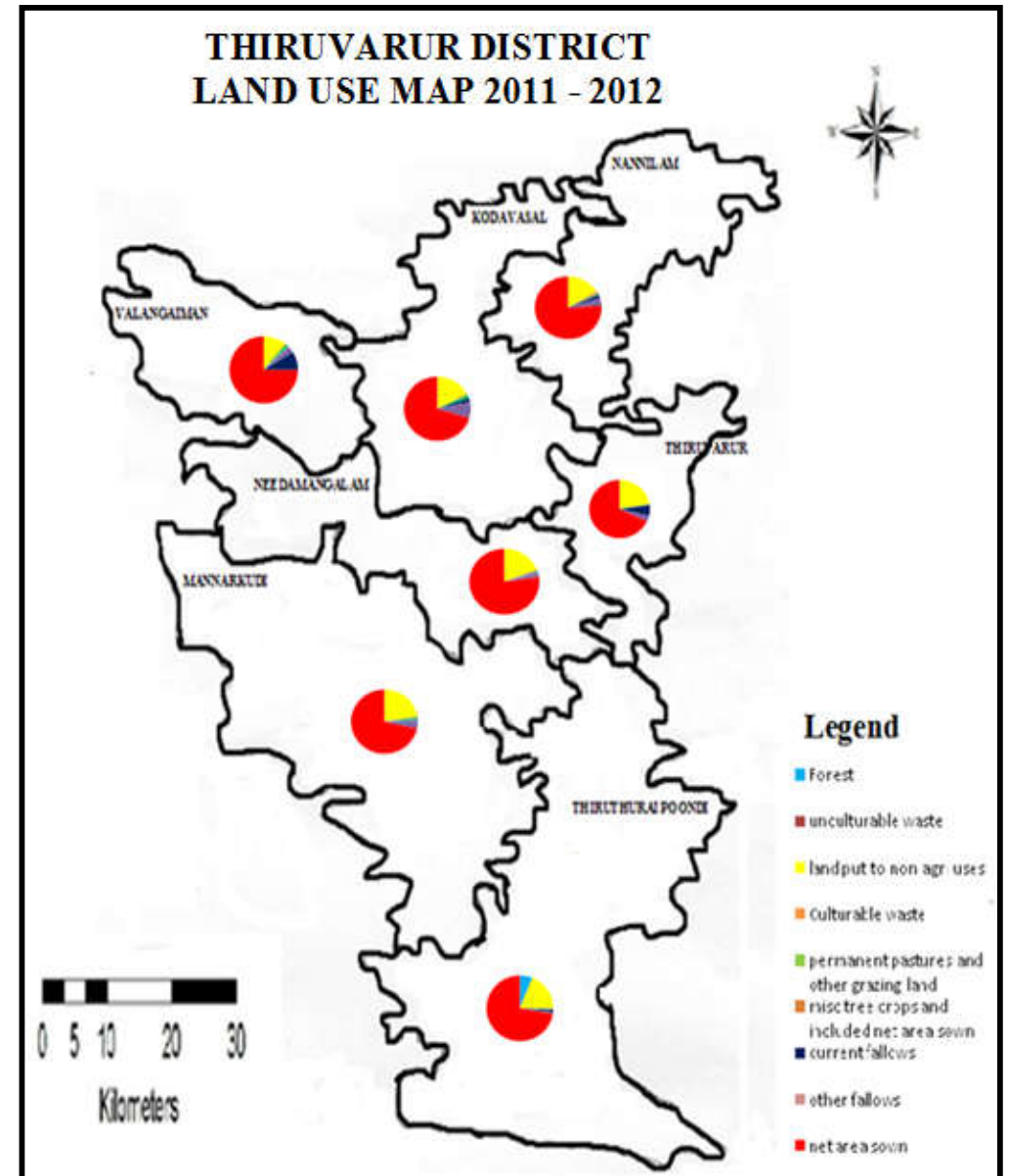


Fig. 3.

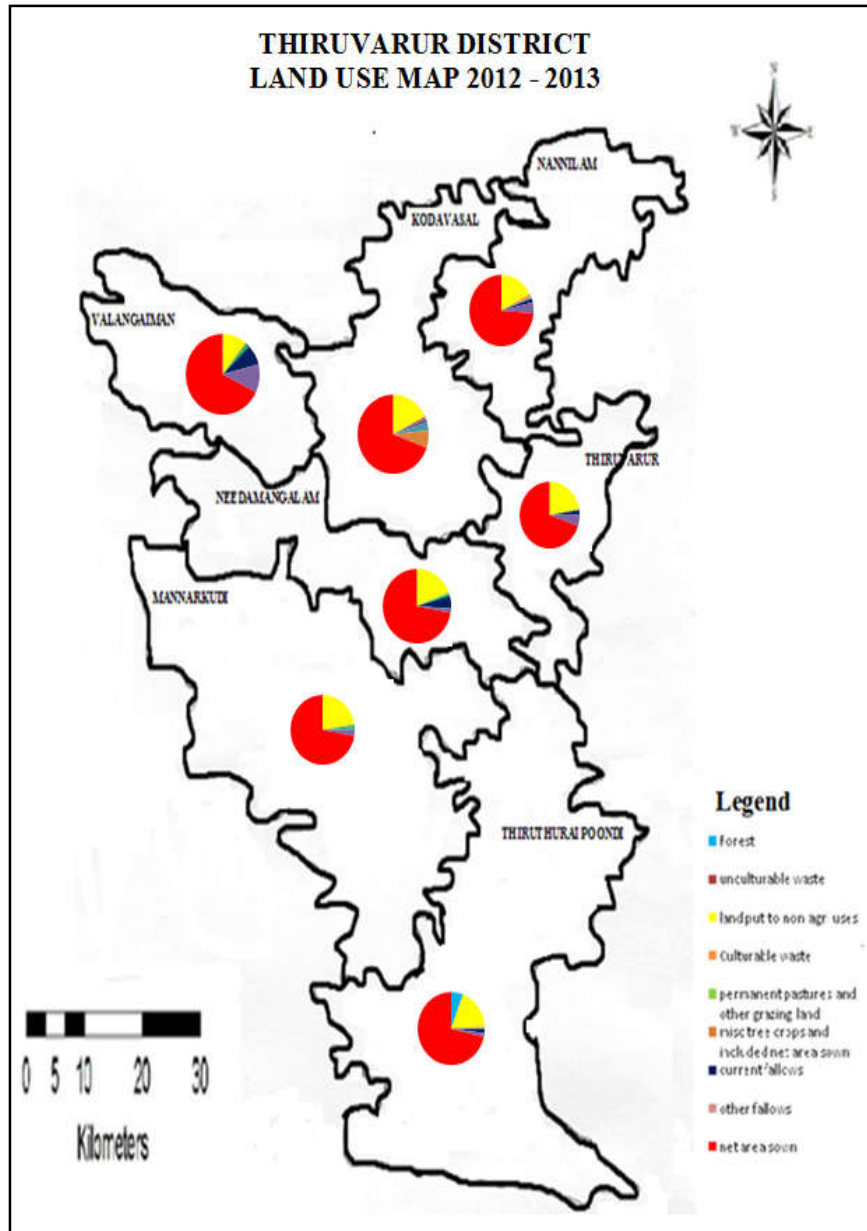


Fig. 4.

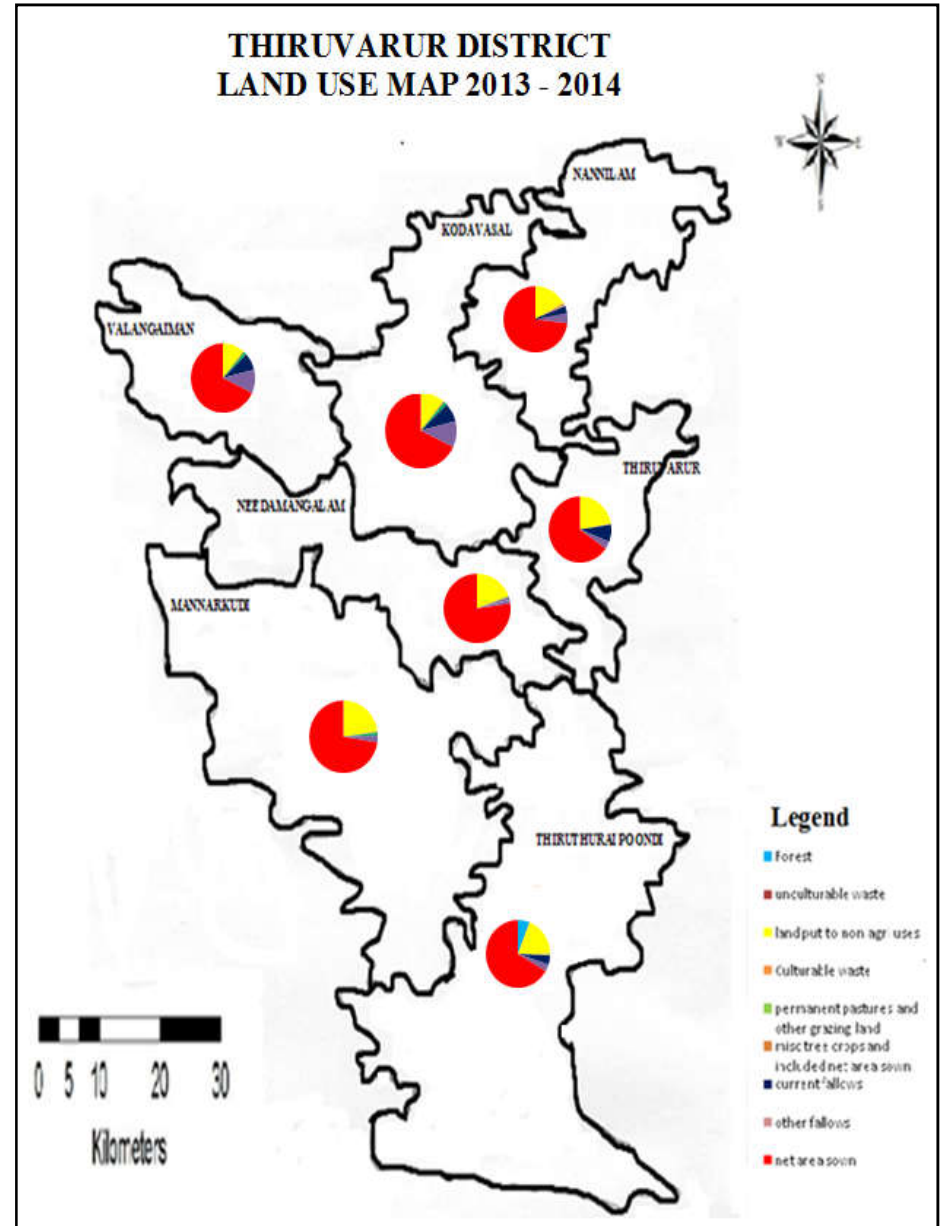


Fig. 5.

Table 5. Land use pattern in Thiruvarur district -2014 -2015(%) Taluk wise

Category	Forest	Barren and uncultivable land	Land put to non agricultural uses	Cultivable waste	Permanent pastures and other grazing land	Misc. tree crops and groves not included in the net area sown	Current fallows	Other lands fallow	Net area sown
Mannarkudi	-	-	22.4	0.3	0.4	1.1	0.6	2.6	72.3
Nidamangalam	-	-	18.9	0.1	0.6	0.9	0.6	2.7	75.7
Thiruthuraiipoondi	6.1	0.2	19.9	0.4	0.5	0.2	4.6	3.5	70.6
Thiruvarur	-	-	22	0.3	0.1	0.1	8.4	3.8	64.9
Nannilam	-	-	16.8	1.3	0.3	0.6	2.9	4.9	72.9
Kodavasal	-	-	17.2	0.7	0.05	2	4.1	6.4	69.3
Valangaiman	-	-	10.9	0.5	0.07	1.2	4.7	10.4	71.8

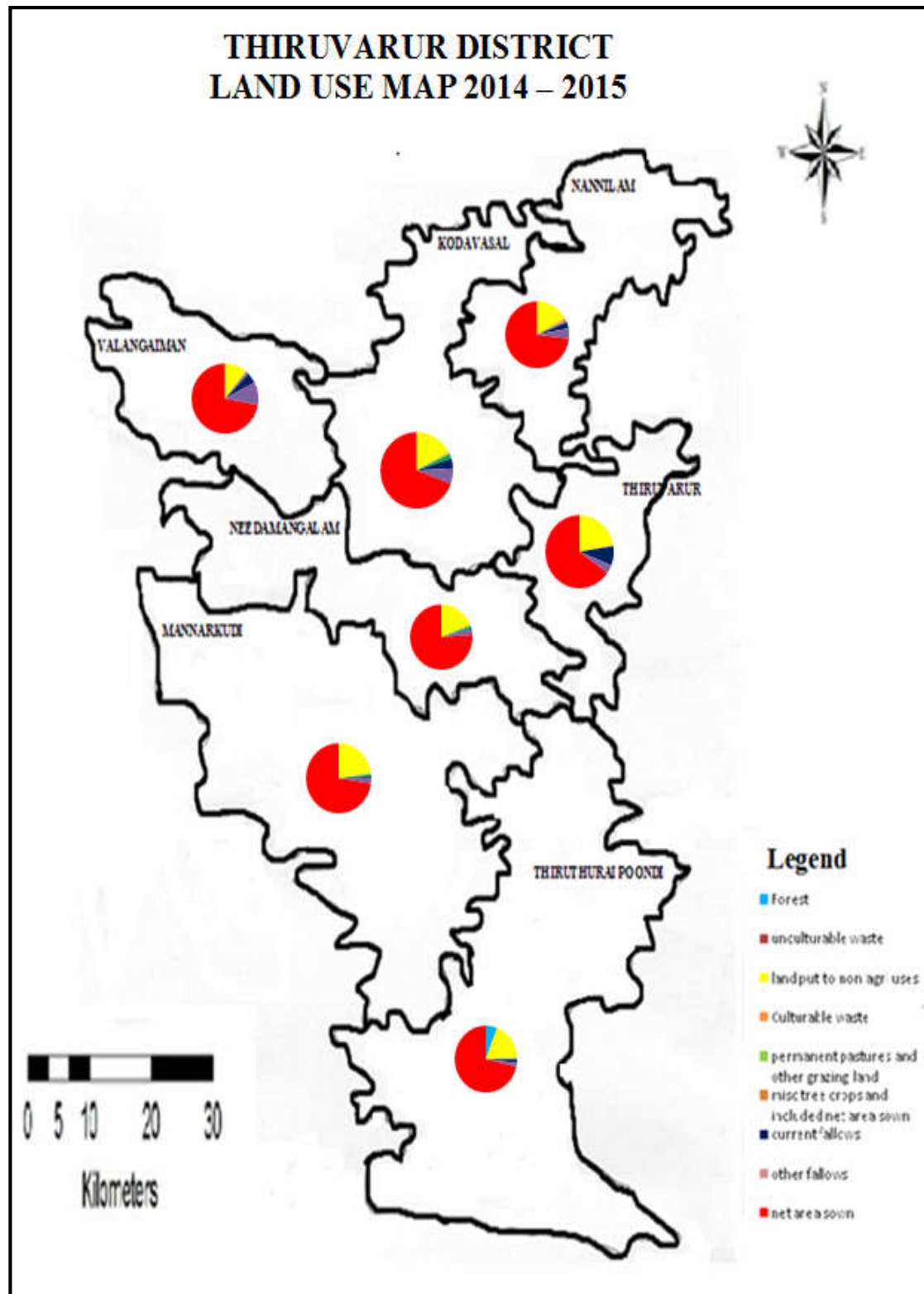


Fig. 6.

Objectives

- To categorized general land use pattern in study region.
- To investigate the study region about the general land use pattern and its changes.

MATERIALS AND METHODS

The study is completely based on secondary data which is obtained from the Statistical Department of Thiruvavur district for years between 2010 and 2015. For the present investigation, district is selected as in general and Taluks in particular. Simple statistical method has used to assess the change in general landuse in Thiruvavur District.

General landuse pattern and its changes in 2010 – 2015

[Table (1.1 – 1.5) & Fig.(1.2 – 1.6)]

In Thiruvavur taluk, the category of Net cultivated areas has decreased from 69.6 per cent in 2010 – 2011 to 64.9 per cent in 2014 – 2015. The current fallows category is increased from 2.3 per cent in 2010 - 2011 to 8.4 per cent in 2014 - 2015. Other fallows category decreased from 5.3 per cent in 2010 - 2011 to 3.8 per cent in 2014 – 2015. Remaining categories have no changes in all years. In the Mannarkudi taluk, the Net cultivated areas have increased from 70.3 per cent in 2010 - 2011 to 72.3 per cent in 2014 – 2015. The area under current fallows is decreased from 3.5 per cent in 2010 - 2011 to 0.6 per cent in 2014 - 2015. The other fallows increased from 1.7 per cent in 2010 - 2011 to 2.6 per cent in 2014 - 2015. In the Needamangalam taluk, the Net cultivated areas category has increased from 71.3 per cent in 2010 - 2011 to 75.7 per cent in 2014 - 2015. The areas under current fallows are decreased from 5.7 per cent in 2010 - 2011 to 0.6 per cent in 2014 - 2015. The other fallows increased from 2.3 per cent in 2010 – 2011 to 2.7 per cent in 2014 - 2015. Other categories are without any changes in all the years. In the Thiruthuraiipoondi taluk the Net cultivated areas have decreased from 76.5 per cent in 2011 - 2012 to 70.6 per cent in 2014 – 2015. The area under current fallows is increased from 1.4 per cent in 2010 – 2011 to 4.6 per cent in 2014 -2015 and the other fallows category increased from 0.5 per cent in 2010 - 2011 to 3.5 per cent in 2014 - 2015. In the Nannilam taluk, the Net cultivated areas have decreased from 75.8 per cent in 2010 - 2011 to 72.9 per cent in 2014 - 2015. The under current fallows are increased from 1.7 per cent in to 2.9 per cent and the other fallows have increased from 3.8 per cent to 4.9 per cent in 2010 – 2011 to 2014 - 2015. In the kodavasal taluk, the Net cultivated areas have decreased from 74.9 per cent in 2010 - 2011 to 69.3 per cent in 2014 - 2015. Miscellaneous tree crops and groves have increased from 1.3 per cent in 2010 - 2011 to 2 per cent in 2014 - 2015. There is no change in the area under Current fallows category. The other fallows decreased from 7.9 per cent in 2010 - 2011 to 6.4 per cent in 2014 - 2015. In the valangaiman taluk, the Net cultivated areas have decreased from 74.6 per cent in 2010 - 2011 to 71.8 per cent in 2014 –

2015. Miscellaneous tree crops and groves have increased from 1.7 per cent in 2010 - 2011 to 4.7 per cent in 2014 – 2015.

Conclusion

The paper deals with the taluk wise land use and its changes through map prepared by using nine fold classification as per the NRSA land use and land changes classifications. The main aim of the work is to study the land use pattern and its changes in Thiruvavur District of Tamilnadu based on the secondary data collected from the statistical Department of Thiruvavur district. The land use and land changes are different from place to place and these categories are changed into year to year. During the study period, data shows that decreasing and increasing trend has been identified in the categories of net cultivated area, Current fallows and other fallows. Miscellaneous tree crops and groves land have increasing trend in this Taluk of Kodavasal and Valangaiman only. There is no specific change of percentage in Net sown area in this district. Out of the total geographical area, 64% to 77% area occupies under Net area sown. Forest is identified only in Thiruthuraiipoondi Taluk without any change. But the land uses are frequently changes now. So this is of serious concern and needs immediate attention in all the agriculture areas globally. Even though in the 7 taluks of the study area, there is no specific change in the area under Net cultivation, there is a greater need of expansion and improvement in the existing facilities of irrigation. So The Government should take intense steps to control the present situations and save agricultural lands. The forest area is very low in this District that is directly affected on rainfall. Forestation is best answer for increasing forest area. The main reason is population pressure and climate changes.

REFERENCES

- Ali Mohammad, 1978. 'Studies in Agricultural Geography', Rasesh Publication New Delhi-1978. pp-1-6
- Amani A.Z. 1976. Agriculture Landuse in Aligarh District.
- Balak Ram and Joshi D.C. 1984. The Deccan Geographer (22), 505.
- Bharadwaj O.P. 1964. The national Geographical Journal of India, 10(2), 257-292.
- Kashid A.D. 2004. Agriculture Land use in Solapur District; A Geographical Analysis. M.Phil dissertation submitted to SRT-MUN. 39-75.
- Kumar J. 1986. 'Landuse Analysis : A case study of Nalanda District', Bihar Inter-India Publications New Delhi- p.1
- Mishra B. N. (ed) 1990. 'Land utilization and management In India', Chugh.
- Patil P.N. 1986. Agriculture in Drought prone Area of Maharashtra State; A case Study of Solapur District. M.Phil dissertation submitted to Shivaji University, Kolhapur. 34-49.
- Pawar C.T. 1989. Impact of Irrigation, A Regional Prtecpective. 52-71.
