'Research Journey' International Multidisciplinary E- Research Journal
Special Issue I – Emerging Trends & Issues in Research & Development
Global Impact Factor – 0.565 (2014) & 0.676 (2015)
ISSN : 2348-7143 (Online)
April-May-June - 2016

Effect of Population Growth on Land Use Pattern: A Case Study of Ahmednagar District

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Abstract

Population growth and land use pattern is closely associated with each other. Now days world population is rapidly increasing consequently their needs also increasing like food, clothes and shelter. Rapid population growth leads to increase in urbanization and urbanization leads industrialization which change the land use pattern of that particular area which ultimately detorite the environmental balance in study region. Increasing population and changing needs of the time, requires revision of land utilization. The revision of land is done by trial and error method which leaves its track of success and failure. The success of National planning is dependent upon the proper utilization of land

In that point of view present study highlight the problem in Ahmednagar District. In Present paper attempt is made for to correlate the population growth and its impact on land use pattern within study region.

Keywords: *Population, land use Urbanization, Industrialization*

INTRODUCTION

Population growth is closely associated with land use pattern. In many countries population growth affected land use pattern because it is closely associated with each other. Now day's world population is rapidly increasing consequently their needs also increasing like food, clothes and shelter. Population and urbanization growth rate is more rapid in developing countries especially it is more faster in India. According to 2011 census Maharashtra is mostly industrialized and urbanized state in India. Which has direct correlation with its land use pattern? Rapid population growth leads to increase in urbanization. and urbanization leads industrialization which change the land use pattern of that particular area which ultimately detorite the environmental balance of that region. Increasing population and changing needs of the time, requires revision of land utilization. The revision of land is done by trial and error method which leaves its track of success and failure. The success of National planning is dependent upon the proper utilization of land. Some day in our country a planned programme will determine the pattern of land use and there not only crops and tamed animals but indirectly things will be determined by mans The demand of land changes du to changing needs of society conscious planning and use of land. And as socio-economic conditions change, land use keeps on changing.

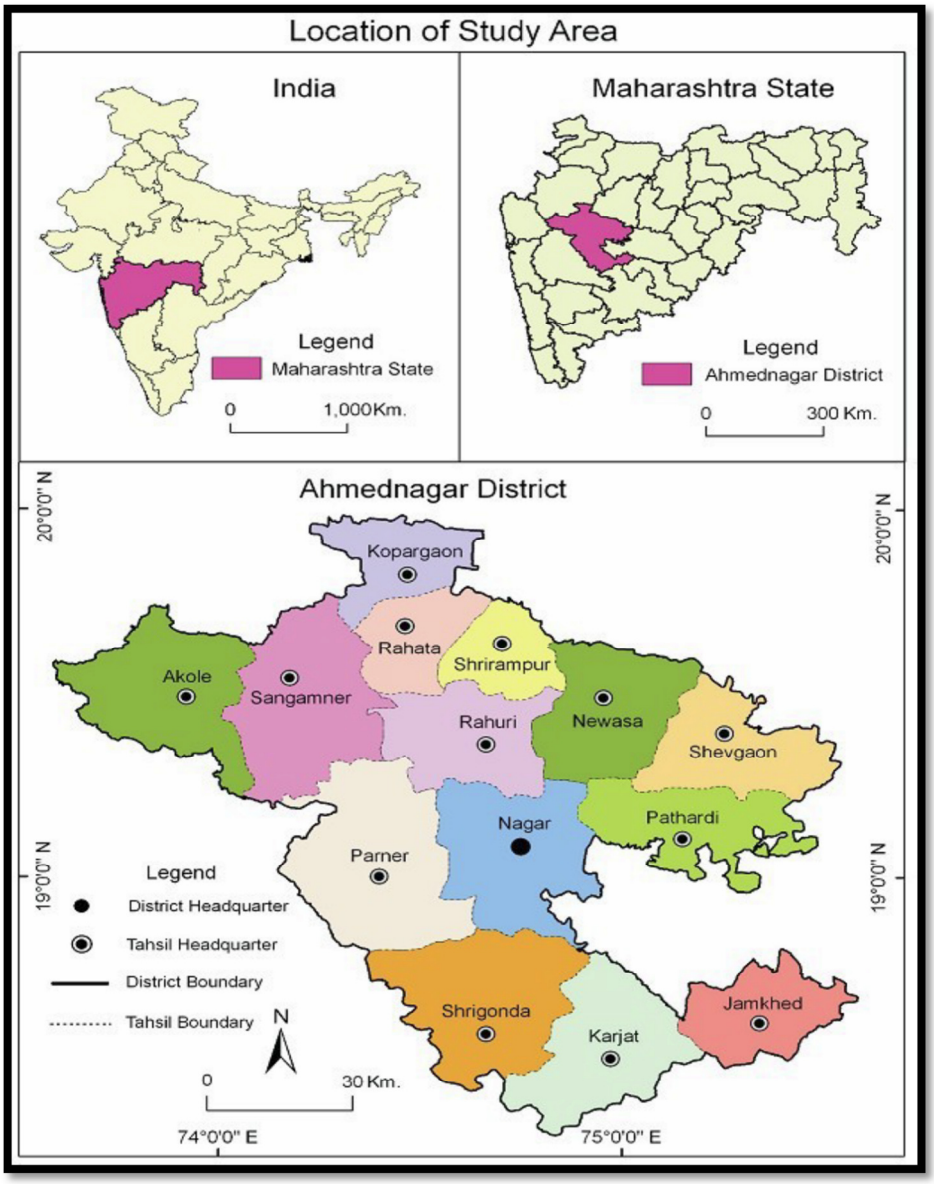
In that point of view present study highlight the problem in Ahmednagar District. In Present paper attempt is made for to correlate the population growth and its impact on land use pattern within study region.

STUDY AREA:

Ahmednagar is the largest district of Maharashtra having a total geographical area of .17413 sq. km. It lies between 18^0 2' to 19^0 9' 07" North latitude and 73^0 9' to 75^0 5' East longitudes.

Physiographically, Ahmednagar district comprises of a part of a Western, one on Mountain ranges, and Eastern Plain part.Godawari flowing on the northern boundary of the district whereas Bhima flowing from the southern boundaries

The climate of the district is generally dry except during the south-west monsoon season. The average annual rainfall for the district as a whole is 560.40mm. Within the district there are considerable variations. The rainfall in general decrease as one proceeds from west to east. Temperature begins to increase rapidly from the latter half of February. May is the hottest month with the mean daily maximum temperature 40.˚C at Ahmednagar and 32.2˚C at Akole. December is the coldest month with the mean daily minimum temperature 13˚C at Ahmednagar . Agriculture is the chief support of the economy of the district and supports the population of 45,43,159 (2011 census).



OBJECTIVES:

The main objectives of the study are as follows:

1) To know the population growth in the study period.
2) To know the land use and land use cover change scenario from the study period.
3) To find the population growth and land se correlation in the study region.

DATA BASE AND METHODOLOGY:

This study is based on secondary data and field work. District Census handbook, socio-economic abstracts of different years is used for present study. statistical information is collected from census handbook, the record of the local bodies, statistical department Government of Maharashtra as well as field survey. Toposheet of concerned region is used for the study purpose which is survey by SOI.

POPULATION GROWTH:

Population is an important resource for the development . Because when the population grow then any region is develop but it should be at optimum level. Population growth is consider economically important for the point of view for the regional development of agriculture as it influences the economic activity and determines the level of consumption and agriculture force. The total population of Ahmednagar was 1775969 (1961 Census). It become 2269117(1971 Census) 2708309 (1981 Census)3372935 (1991 Census) 4040642(2001Census) 4543159(2011 Census)

Table 1: Decadal Population Growth of Ahmednagar District 1961-2011

Year	Total	Urban	Rural	Total Growth in %	Urban Growth in %	Rural Growth in %
1961	1775969	187315	1588654	+25.88	+12.41	+32.83
1971	2269117	251500	2017617	+27.76	+34.76	+27.00
1981	2708309	351368	2356941	+19.36	+35.29	+16.82
1991	3372935	533481	2839454	+24.54	+52.14	+20.47
2001	4040642	603697	3236945	+21.20	+50.56	+15.67
2011	4543159	912617	3630542	+12.44	+12.16	+13.55

(Source: Socio-Economic Abstract Ahmednagar District)

Above chart clearly indicate that there is variation in total population growth of Ahmednagar District. There is maximum growth between 1961-1971 decade and 1981-1991 which is 27.76% and 24.54 respectively. but at the same time one remarkable things is observed from above table that , within study region urban population growth took place rapidly as compare to rural population with their percentage. From the year 1971 to onwards continuously urban population increased by decade, it shows that migration also effectively taken place from the study period.

Table 2: Land use classification of Amednagar District

Sr.no	Land use	2004) (Area in hectare)	2011 (Area in hectare)	2004 (Total) %	2011 (Total) %
1	Under forest	131593	131592	9.85	7.89
2	Not use for agriculture	196557	168382	3.40	10.10
3	Other(non irrigated)	78661	33842	9.68	2.02
4	Total fallow	125133	198093	7.94	11.88
5	Net area under crops	1185846	1135879	69.31	68.11
	Total	16677788	1667788	100	100

(Source: Agriculture Dept, Director office Pune Govt Of Maharashtra)

Above diagram clearly show that even in a short period of 7 years time land use of the district change. In 2004 where near about 1 percent. area under forest land is decreased from 131593 to 131592 hectares. At the same time net area under crops also decreased from 69.31% to 68.11%. area under irrigation is increased over the 7 years period of time from nearby 7.5 percent .but the considerable things is that area under fallow land, and area not used for agriculture percentage is increased from 7.94 to 11.88 % and 3.40 to 10.10% respectively. area not used for agriculture agriculture its means that other uses of land is increased like resident, industry ect, which is purely associated with urbanization and industrialization which leads the environmental degradation.

CONCLUSION

Population in Ahmednagar district has been increased from 1961 to 2011. In 1961 the population in Ahmednagar District was 1775969 while it increased and attained 4543159 persons in 2011. The average regional increase of population growth has been recorded 52.72 percent in 1961-2011. While comparing at the tahsil level, highest increase of population (89%) is accounted for the Sangamner tahsil whereas the lowest figure has been attained by Akole(7.55.%). Most of the tahsils records positive variation in population growth from 1961 to 2011.

The district has not good percentages of areas under forest area during the study period. It is even less than 10 percent of the total geographical area. Environ mentally speaking for every region must maintain minimum 33 percent area under forest cover but the situation in the study region is very dangerous. The net area under crops also decreased from1185846 to 1135879 hectares it decreased only 1.20 % over a period of seven years. The decreasing percentage of forest area and net area under crops area are used for rapid growth of population, which requires more land for residential, commercial establishments, educational and other institutions, industries, roads, gardens, playgrounds etc. in the district . The small decreasing percentage of net sown area are used for rapid growth of population, which requires more land for residential, commercial establishments, educational and other institutions, industries, roads, gardens, playgrounds etc. in the district. . .

Out of the total geographical area only 7.89% area under forest which is decreasing continuously day by day this situation is environmentally very harmfull for entire district because forest cover and rainfall pattern is closely associated to each other, basically district suffer from

acute water shortage due to prolonged drought condition especially southern and eastern part. Study also clear that growth in population percentage in Rural and Urban is not proportioned urban population percentage increasing rapidly. Migration from rural to urban especially even for outside district like nearby Metro like Mumbai, Pune is also considerable which affecting is rural economy of district. So it become very necessary that to launch the community development programme, to develop small watershed programme to make more and more forestation is necessary at the same time it need that the percentage of area not under agriculture should be minimized, total fallow land percentage is rapidly increasing 125133 to 198093 hectares (11.88 %) it should be also minimized. drought management practices should be implement in the rural area. Ralegansidhi and Hiwrebajar is the Ideal examples for entire country regarding watershed management and community development practices. As like that at village level efforts by local community, NGO and local administration is very necessary that the basic among the agricultural development measures necessary for transformation of the face of agriculture in the district is irrigation and others are very closely with it.

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