

Research Paper—*Geography*



SEPT—2009

**POPULATION GROWTH AND CHANGING
LAND USE PROFILE IN BAGLAN
TAHSIL, NASHIK DISTRICT
(MAHARASHTRA)**



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ABSTRACT

Baglan is the second largest tahsil in Nashik district of Maharashtra state having a geographical area of 1475.3 sq. km. In this paper an attempt has been made to highlight the population growth and changing land use profile for the year 1990-91 and 2000-2001. Growing population is one of the main factors for changing land use pattern and is the main threat to the land. The dynamics of land use and land cover changes differ in different part of the world. In much of Europe land is being released from agriculture, and is reverting to scrub and to forest. In many parts of Africa, Asia and Latin America the agricultural area continues to expand. Land use reflects a complex correlation between natural, historical and socio-economic factor. The use of land changes according to the changing needs of man. The distributional pattern of land use and the change therein are brought out from 1990-91 to 2000-2001.

INTRODUCTION

Land is one of the most important resource which plays an eminent role in determining mans economic, social and cultural progress. Land use is the surface utilization of all developed and vacant lands on a specific space, at a given time. Lands are used for crops, forest, pasture, mining, transportation, garden and recreational, industrial and commercial and residential. Land use is also related to conservation of land from one major use to another general use. The use of land changes according to the changing needs of man. Stamp,

L. D. (1948) has classified the needs of man into six major categories, viz., agriculture, home, food, transportation, communication, defense and recreation.

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 trace 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.

The criticality of land in National development is cleared from a statement of the late Smt. Indira Gandhi in 1972 who said,” we can no longer afford to neglect our most important natural resources. This is not simply an environmental problem but one which is basic to the future of our country. The stark question before us is whether our soil will be productively enough to sustain the population of more than one billion, at higher standards of living than now-prevail. We must have long term plants to meet this contingency.” One basic fact that, cannot be ignored i.e. land is a finite resource and it is very essential that, land use is properly planned. We therefore, need a national policy on land (soil) with short and long range objectives.

Baglan is one of the most important tahsil in Nashik district in Maharashtra and most prosperous in agriculture and land use aspect. In this paper an attempt has been made to highlight land use changes based on secondary data collected from District planning unit and Dy. Directorate of economic and statistics office, Nashik for the year 1990-91 and 2000-2001. Growing population is one of the main

factors for changing land use scenario and is main threat to the land in the district. To overcome this problem, we must plan for the proper use of the available land resources and our living depends on successful agricultural self-sufficiency.

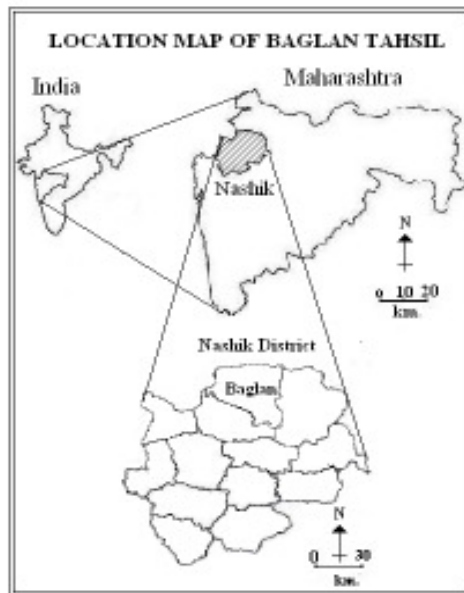
STUDY AREA—Baglan ranking second largest Tahsil in Nashik district of Maharashtra

having a total geographical area of 147529 hecets. It lies between 20° 26’ to 20° 53’ North latitude and 73° 51’ to 74° 24’ East longitudes. Physiographically, Baglan comprises of a part of a Deccan Plateau.

The soils of the Aram (tributary of river Girna) and Mosam valleys are quite deep and fertile. The soils in the rest of the Tahsil are undulating and susceptible to erosion.

Light shallow soils are noticed on hill slopes. The tahsil is mainly drained by two major rivers i.e. River Aram and River Mosam. The climate of the Tahsil is primarily Monsoonic, which is highly mild and healthy for establishment of human settlements and agriculture.

Baglan receives 480 mm. Annual Rainfall & most of it comes during the monsoon period from June to Sept. Similarly Malegaon experiences a very high temperature during the pre-monsoon period that is April and May (max. 40.06 °C & min. 30° C). As well as in rainy



season it experience 35° C max. Temperature and 28°C min. temperature. Agriculture is the chief support of the economy of the Tahsil and supports the population of 311148 (2001 Census).

OBJECTIVES:

The main objectives of the study are as follows:

- 1) To know the population growth and density from one decade to another.
- 2) To know the changing land use pattern and land use cover change scenario from one decade to another.
- 3) To know how demographic, economic and social factors play a vital role on changing land use pattern.
- 4) To know how land changing from one major use to another and the factors responsible for it.
- 5) To know the factors responsible for increasing fallow land and land put to non-agricultural use.
- 6) To know the roll of Government/Politicians/planners/scientists for changing land use scenario, and
- 7) To know the population pressure plays an important role for changing land use cover in the study area.

DATABASE AND METHODOLOGY

The study is completely based on the secondary data. The study is completely based on the secondary data. Topographical maps are

used for physiographic study. Landuse data collected from socio-economic abstract, Nashik district and District Census Handbook are referred to collect related information. Simple statistical methods have used to compute percentage. The required statistical information was obtained from census hand books as well as the record of local bodies. After collecting the data it has been organized, tabulated & then analyzed. Whenever necessary the maps and the graphs have been prepared to help the analysis. Similarly same statistical techniques have been employed to yet the clear & precise results.

POPULATION GROWTH—Population is an important resource from economic 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 population in the Baglan Tahsil is 311148 (2001 Census). It accounts for 6.2 percent of the Nasik district. The average density of population in the study area 211 persons per square km. Table 1 show the population growth and density since 1951 to 2001 with a decadal variation and percentage of population growth.

Table 1: Population Growth and Density

Year	Population			Decade Variation	Growth in %	Density/ Sq.Km.
	Rural	Urban	Total			
1951	100000	20000	120000	---	---	74
1961	141000	13000	153000	+33000	+27.50	95
1971	180000	17000	197000	+44000	+28.76	122
1981	223000	21000	243000	+46000	+23.35	150
1991	237000	28000	265000	+22000	+9.05	164
2001	279000	33000	312000	+47000	+17.74	211

(Source: District census handbook and Author)

It is observed from table 1 that the population in Baglan Tahsil has been gradually increasing from 1951 to 2001 except 1991. The population in Baglan Tahsil in 1951 was 120000 while it increased and attained 312000 persons in 2001. The total increase in population during the above period is 192000 persons with higher rate expecting the decade in 1981 to 1991. During this decade, spreading in influenza epidemic coupled with crop failure has decreased the growth of population (9.05 %).

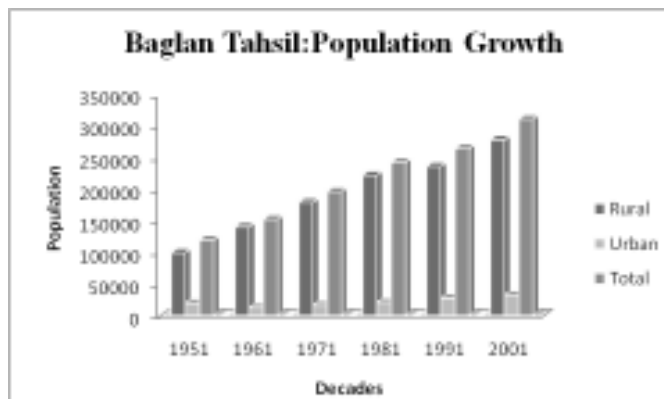
Population density has been studied in order to understand the regional variations and its influence on agricultural land use. The area under study has 77.4 percent farm workers to total working population which is directly involved in agriculture (2001). The population density value was here calculated as ratio of total population

to the total area from 1951 to 2001 and is shown in table 1. It is revealed from this table that density of population in Baglan Tahsil is increased since 1951 from 74 persons per sq. km. to 211 in 2001. The interesting fact regarding the density of population increased four times during fifty years. The decade from 1941 to 1951 the density exhibits low rate i.e. 74 persons per sq. km., while high rate of density was observed in decades 1991 to 2001 and it was 211 persons per sq.km. in the Tahsil.

LAND USE IN BAGALN TAHSIL—

Land use in the surface utilization of all developed and vacant lands on a specific space at a given time. Lands are used for forests, cultivation of crops, pasture, mining, roads and transportation, gardens and playgrounds, recreational, settlement (residential), industrial and commercial establishment etc. Whereas, uncultivable waste land, barren and fallow lands are unused lands. The present landuse has been divided into five broad categories viz., 1)Net sown area; 2)Forest; 3)Fallow land; 4)Cultivable waste and 5)Barren and uncultivable waste land for the period 1980-81, 1990-91 and 2000-01.

NET SOWN AREA—The net sown area is the land which is being actually decline. Out of the total geographical area of the tahsil had 80315 hecets. (49.7%) were under net sown during 1980-81. Whereas, during 1990-90, the tahsil had 88557 hecets. (54.8 %) were under net sown. About 8242 hecets. (5.1%) of land has been increased under net sown during a span of ten years. During 2000-2001, the tahsil has 72732 hecets. (49.3 %) of land under net sown. Between 1990-91 and 2000-2001 about 15825 hecets. (5.5%) of land under net sown has been decreased in the tahsil. There is a net decrease of 7583 hecets. (0.4%) of land under net sown during the study period i.e. 1980-81



to 2000-2001 (Table 2). This decrease is due to the increase in population and its pressure on demand of settlement to feed the increasing population in the tahsil. This decreased land has been brought under the different uses like residential, commercial establishments. Accordingly, the land under net sown has also been decreased during the span of twenty years in the tahsil.

FOREST—In assessing the character of

the vegetation type, a factor that can not be neglected in the long occupation of man and the consequent change on the vegetal carpet through agriculture. The type of vegetation met with any given locality depends on the climate, soil and past treatment has been emphasized by the leading plant ecologists. The influence of temperature and rainfall on plant life has received a special attention in the classifications of climate proposed by Koppen and Thornthwait.

Table 2: Land use in Baglan Tahsil (Past & Present -Area is in Hectares)

Sr.No.	Land use Category	Years			Changes
		1980-81	1990-91	2000-01	
1	Net Sown Area	80315	88557	72732	-15825
	Percentage	49.7	54.8	49.3	-5.5
2	Forest	47672	47672	41751	-5921
	Percentage	29.5	29.5	28.3	-1.2
3	Fallow Land	9534	9534	6049	-3845
	Percentage	5.9	5.9	4.1	-1.8
4	Cultivable Waste Land	4525	15190	4868	-10322
	Percentage	2.8	9.4	3.3	-6.1
5	Land put to non-Agricultural uses	19554	647	22129	+21482
	Percentage	12.1	0.4	15.0	+14.6
	Total Area	161600	161600	147529	
	Percentage	100	100	100	

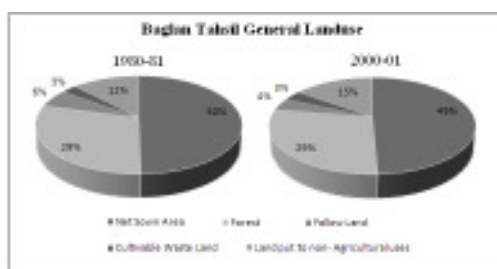
(Source: Nasik District: Socio-economic Abstract 1990-91 and 2000- 2001)

The forest area is being actually decline. Out of the total geographical area of the tahsil had 47672 hect. (29.5%) were under forest during 1980-81 and 1990-91. Whereas, during 2000-2001, the tahsil has 41751 hect. (28.3 %) of land under forest. Between 1990-91 and 2000-2001 about 5921 hect. (1.2%) of land under forest has been decreased in the tahsil. There is a net decrease of 5921 hect. (1.2%) of land under forest during the study period i.e. 1980-81 to 2000-2001 (Table 2). This decrease is due to the human interruption. There is almost

small change in forest lands during a span of twenty years but the density of trees goes on decreased through time. Forest plays a dominant role in maintaining ecological and environmental balance in the district.

FALLOW LAND—The term fallow land applies for the lands which are not under crops at the time of reporting though they were soon in the immediate past. The fallow lands are generally divided into two major categories i.e. “Old fallow lands “which comprises those lands that have been left uncultivated for more than

five years, and the “Current fallow lands “which include lands that were not sown at the time of crop reporting but were sown one or two years before or left Fallow either in one season or for one complete year to replenish the soil fertility. The definition of the term “current fallow “greatly differs in many parts of the country. In Punjab, lands are classified as current fallow if it has been left uncultivated for less than two years. In Maharashtra, land continues to be classified as current fallow, if it is continued uncultivated for less than ten years.



In Bihar current fallow is applied to all such lands which were not under crops at the site of reporting but which had been sown in the recent past. Thus current fallow are a part and parcel of the arable land.

Baglan Tahsil has a fallow land of 9534 hec. (5.9 %) during 1980-81, which has been constant during 1990-91 and it has been further decreased to 3485 hec. during 2000-2001, to the total geographical area. The net decrease of fallow land is 3485 hec. Which constitute 1.8 percent over a period of twenty years? This reclaimed land is almost used for cultivation purposes. Reclaiming fallow land is a good sign of prospering in the development agriculture in the district.

CULTIVABLE WASTE LAND—

Cultivable waste lands are defiantly cultivable but are at present lying as waste on account of

number of limitations. The limitations vary from one to another. They can be enumerated under the following heads: encroachment by wild weeds, floods and erosion, poor drainage, scarcity of water and distance from settlement area etc. In Nasik district cultivable waste land is found in the areas where the land has been adversely affected by water logging, floods, erosion and scarcity of water. Due to these negative factors, this category of land has become un-economic and un-productive. This land can be brought under cultivation if they are provided with cultivable facilities. Also outlet can be provided to protect it from water logging. During 1980-81, the Tahsil had 4525 hec. (2.8%), during 1990-91, 15190 hec. (9.4 %) and during 2000-2001, 4868 hec. (3.3 %) of land were under cultivable waste to the total geographical area of the tahsil. About 0.5 % (343 hec.) of land has been increased in the district during the span of two decades.

LANDPUT TO NON-AGRICULTURAL USE—

This broad category comprises of a number of different types of land which are not available for cultivation under the existing circumstances. This type of use represents the land occupied by buildings, roads, railways, factories, water bodies, playgrounds, gardens, grave lands and settlements. This land covers an area of 19554 hec. (12.1%), 647 hec. (0.4%) and 22129 hec. (15.0%) during 1980-81, 1990-1991 and 2000-2001 in the tahsil respectively to the geographical area. There is an increase of land under this category. The net increase of land put to non geographical use is 21482 hec. Which increased 14.6 percent over a period of twenty years? This high proportion of non-agricultural land is due to rapid growth of population, which requires more land for residential, commercial

establishments, educational and other institutions, industries, roads, gardens, playgrounds etc. in the tahsil. The land under this category is increasing fast and is bound to increase in future too with the development of science and technology. This land is however, considered detrimental to balanced rural agrarian economy because the productive land is usurped by unproductive uses. Non-agricultural land is an index of the development of an area, when the area is developed in the construction of multi-stored buildings and development in transport facilities.

CONCLUSION:—The tahsil has good percentages of areas under net sown during the study period. Net sown areas gradually decrease. But it is nearly 50 percent of the total geographical area. The net decrease of net sown area is 7583 hect. Decreased only 0.4 % over a period of twenty years. The net area under forest will be constant between 1980-81 to 1990-91; it is 29.5 % of the total

geographical area of the tahsil. The net decrease of forest area is 1.2 percent between the study periods. This percentage of land under forest will not suitable for environment & ecological balance. There is decrease in follow land i.e. 3485 hect. (1.8%) over a period of twenty years. There is net increase of 343 hect. (0.5%) of land under cultivable waste. While the net increase of land put to non-agricultural use is 2575 hect. Constitutes 2.9 % over a period of twenty years. The decreasing percentage of net sown area & increasing high proportion of land put to non-agricultural use is due to rapid growth of population, which requires more land for residential, commercial establishments, educational and other institutions, industries, roads, gardens, playgrounds etc. in the tahsil. Non-agricultural land is an index of the development of an area, when the area is developed in the construction of houses and transport facility.

REFERENCE

- Basu, S., (1988): "Landuse in Malkauria village-A case study in Banker District", Geographical Review of India, Calcutta, 50/5.
- B.C.Vaidya (1997): "Agricultural Landuse in India", Manak New Delhi 110092.
- Government of Maharashtra: Socio-economic Abstract, 1980-81, 1990-91 and 2000-01.
- Khoshoo, (1986): "Environmental priorities in India & sustained Development", Indian science Congress Association, p.11.
- Nanavati, M.B. (1957) (foreword): "Readings in land utilization", The Indian society of Agricultural economics, Bombay, p.2.
- Nath, V (1953): "Land Utilization in India", Journal of the soil & Water Conservation in India, Vol.1, no.2, p.8.
- Newsletter (Dec. 1999): International Geographical Union, Study Group on Land Use Cover, Japan.
- P. Y. Vyalij (April 2009) : " Changing Landuse profile in Nashik District" A National Journal ' Research Link' Issue-61, Vol-VIII(2), p.75-78, Indore (MP).
- P. Y. Vyalij, R.S. Deore (Aug. 2009) "Population Growth and Changing Landuse profile in Malegaon Tahsil (MS)" A National Journal 'Research Link' Issue-65, Vol-VIII (06), p.66-69, Indore (MP).
- Profali, R.M. (1975): "The Study of land Utilization in a part of a Bor Command Area", The Deccan Geographar, Secunderabad, 13/1&2.
- Stamp, L.D. (1948): "The land of Britain & how it is used ", London, Farah & Fahar, p.32.
- Vink A.P.A., (1975) "Landuse in Advance Agriculture." Springer-Verlag.