

Research Papers



DEFORESTATION IN SOLAPUR DISTRICT OF MAHARASHTRA

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Abstract

Forests are the one of the important and oldest natural recourses utilized by man for various sources. Forests have both productive and protective function. But in the name development, 23 hectors of forest is being cut in every minute. The rate of deforestation is alarming. In India annual los of forest is 0.27 million hectors in 1995-97. Deforestation has become a matter of serious concern through out the developing countries of the world, which have large population to support. For present investigation Solapur District is selected. The total geographical area of Solapur District is 14895 km². and among them 319km.² area is under forest.

The proportion of forest area is 2.14 % (2004/05) of the total geographical area. The share of forest area in the district are recorded very low than the norms set by the (22%) National Forest Policy. The decay of forest cover is mainly due to timber of domestic use and indiscriminate grazing timber-ban decision has checked the diminishing trend of forest area in the district. Present paper describes the silent features of forest cover, its extent and decay in Solapur district of Maharashtra.

Keywords

Deforestation , Forest covers, forest development strategy, Taungya System, coppice system, Silviculture system

Introduction

Destruction of forests is known as deforestation. Several man-made activities like mining, construction of roads, developmental projects, power generating plants, growing agriculture expansions result into deforestation. Deforestation has become a matter of serious concern through out the developing countries of the world, which have large population to support. According to the Food and Agricultural Organization (FAO,2000)35% of the total forests have disappeared since 1950. It is claimed that nearly 30% of the total forest area in Bangladesh has been destroyed in the past 25 years. The forest cover in India decreased from 25% 1970 to 30% in 1998. Deforestations caused not only by development activities, but also by the new land reforms.

Objective

The major object of this paper is to analyse the rate of deforestation in Solapur district. An attempt has made here to discuss the strategy for forest evlopment.

Study area

The present study deals with the geographical perspectives of the agriculture in Solapur district. The Solapur district is bounded by 17°05' North latitudes to 18° 32' North latitudes and 74°42' east to 76°15' East longitudes. The total geographical area of Solapur district is 14895 K.m². divided into eleven tahsils. Climate of the district is dry. The daily mean maximum temperature range between 30° C to 35° C and minimum temperature range between 18°C to 21°C. The highest temperature is 47° C recorded in the month of May. The average annual rainfall is registered 510 mm. The soil of the district essentially derived from the Deccan trap. The soil of the district can broadly classify into three groups shallow, medium and deep soil.

Data base and Methodology

Present study mostly relies on the secondary data is collected through District statistical Department of Solapur and District socio-economic abstract of Solapur District. The total district (11 tahsils) has selected for investigation in the year of 2004/05. The forest's extent and decay have measured from 1980/81 to 2004/05. The suitable cartographic technique was adopted to depict map to find out spatio-temporal variation of deforestation in Solapur district of Maharashtra.

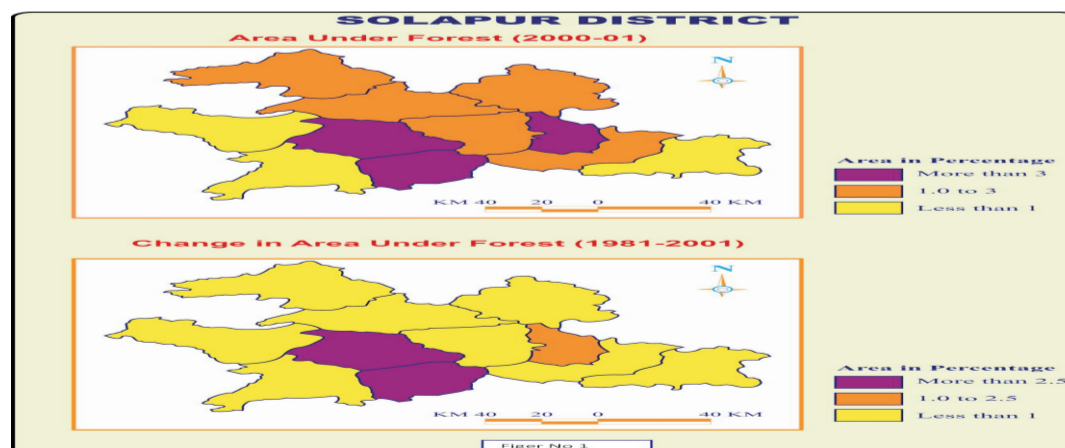
Explanation

The Solapur district has a very limited area under forest i.e. it occupies about 2.14 percent. Mostly out of the total geographical area in the district being lower than the average of Maharashtra, which is 17.28 percent in 2001. The changes pattern in the region under study during 1970 to 2001 is represented in table 6.1. The proportion of forest land has been increased from 2.18 percent in 1970-1971 to 2.39 percent in 1980-1981. During the period 1991-2001 forest land has tremendously decreased and became 2.1 percent in 2001. This has decreased due to the growing pressure of population some forest lands were converted in to agricultural land and some were denuded of vegetation and soil.

Table No- 1. Solapur District : Area under forest and change

Talukas	1980/81	2000/01	Volume of Change
North Solapur	1.5	3.07	-
Barshi	1.7	2.4	+ 0.7
Akkalkot	0.4	0	-0.4
South Solapur	1.7	1.5	-0.2
Mohol	3.0	1.2	-1.8
Mangalwedha	0.7	6.4	+5.7
Pandharpur	2.9	5.8	+2.9
Sangola	4.8	0.4	-4.4
Malshirash	3.8	0.2	-3.4
Karmala	3.9	2.7	-1.2
Madha	1.1	1.7	+0.6
District	2.39	2.14	- 0.29

Source : complied by researcher

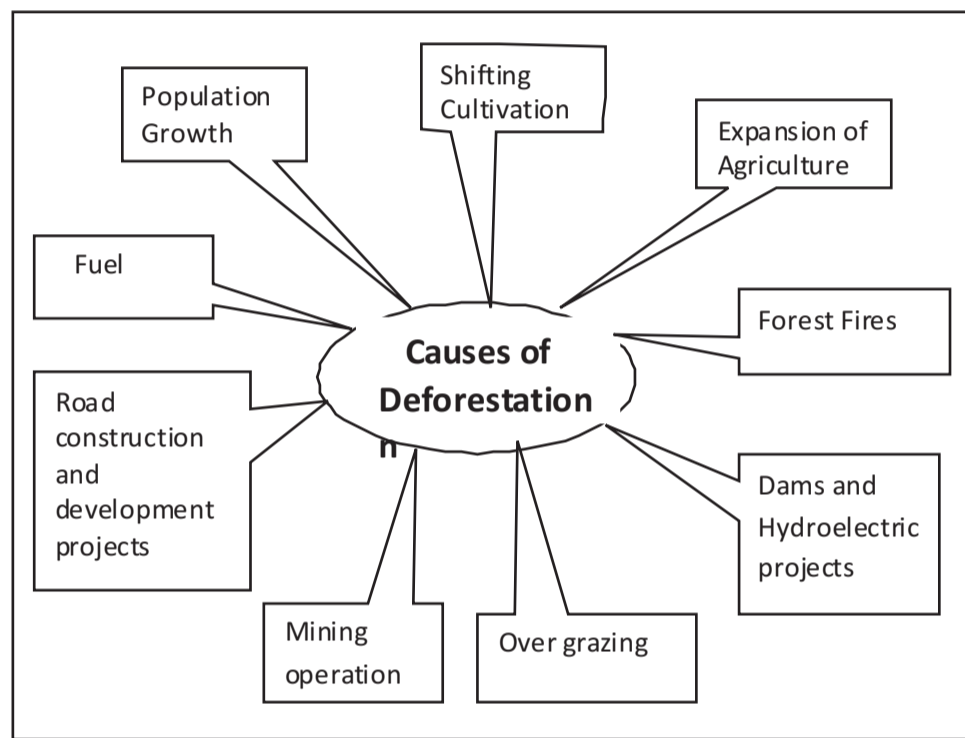


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There are marked variations in tahsil level, ranging from below one percent in Akkalkot to over five percent in Mangalvedha. Highest percentage recorded in Mangalvedha, Pandharpur tahsils with 6.4 percent and 5.8 percent change respectively. Lowest percentage recorded in Akkalkot, Sangola and Malshiras tahsils with '0.0' percent, 0.4 percent and 0.2 percent respectively. Forest gradually decreased from west to east. Most of the forests in the region are situated on hills and Ghats of Vadashing, Ghat in Barshi, Waghoba and Bodki in Karmala. Both positive and negative changes were experienced in forest area during the period 1980 to 2001. Below one percent negative change in forest area was experienced in only Akkalkot (-0.4), tahsil, where as below one percent positive change in forest area was experienced in Barshi (+0.7) and Madha (+0.6) tahsils, during the period of investigation.

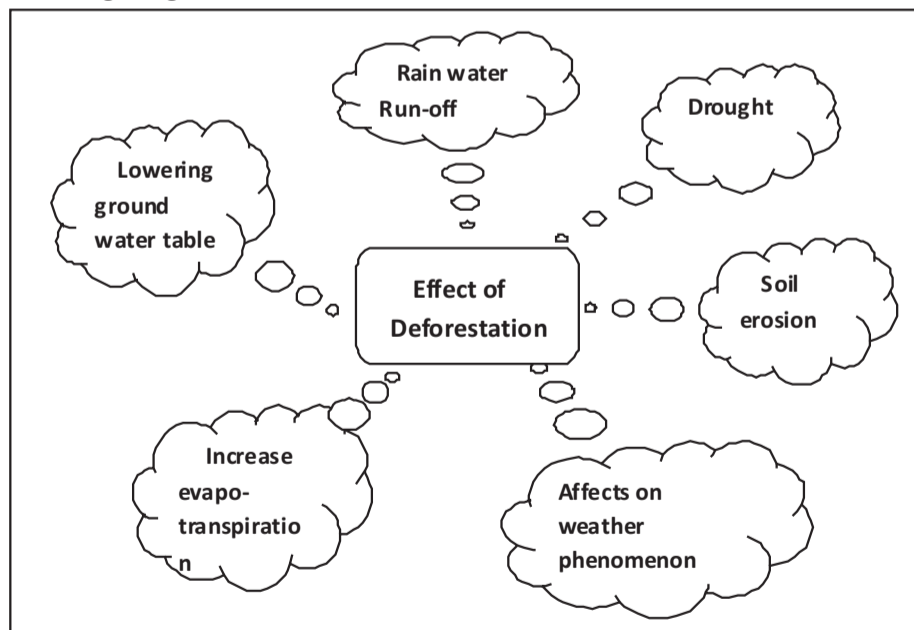
Causes of Deforestation

Following diagram shows the causes of deforestation



Effect of Deforestation

Following diagram shows the effect of deforestation.



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Strategy for Forest Development

Today, maintenance of ecological balance is one of the most important problems in drought prone area to avert soil erosion, increase the moisture in the atmosphere, rainfall, groundwater, etc. In this regard, plants in the district are too short to fulfill the requirement of ecological balance of the district. It is necessary to take up massive effort on war footing to develop forest cover in the district. For this following strategy can apply.

1. Silviculture system is used to forest management, which through ecological principal deals with the establishment, growth or production of timber trees. Many barriers and land that are unsuitable for civilization are increasing being drought under the cover of forest trees.
2. Use coppice system for forest management. In this system, timber is cutting leaving one meter or so of the tree from base intact, which regenerates into new shoots.
3. In order to reduce expenses over plantation of trees that a system of forest culture plus agriculture called Taungya System. Under this system, villagers or poor people without any fields of their own are allotted clear forest plots. There, they cultivate agriculture crops in the first year and take all the yields, next year they prepare rows of beds for raising seedling of trees and in between these rows, they cultivate crop species. Crops have risen for 2-3 years during which period root system of tree seedlings grow deep. Once the seedling has grown to a meter or over, the labours are moved to the next clear block and the same process is repeated.
4. Depending upon the suitability of site and topography cultivable wasteland and all along roadside the species like neem, nilgiri etc. can be planted extensively.
5. There are medium minor percolation tanks in the district, where silting process gradually take place and do not fill up with meager rainfall. The forest shore of the tanks can be planted with subabul plantation.
6. The barren land can be used for pasture development in the form of a forestation schemes. It is almost necessary to cover this dry belt gradually into green belt for balancing the ecosystem.
7. Drought resistance species are planted in the large part of the reserve forest area, which are devoid of any vegetative cover.

Conclusion

Deforestation is taking place rapidly because of over population use lack of alternative fuel to wood, ignorance about forestation among the people etc. in the district. There are marked variations in tahsil level. Highest percentage recorded in Mangalvedha, Pandharpur tahsils. Lowest percentage recorded in Akkalkot, Sangola and Malshiras tahsils. Both positive and negative changes were experienced in forest area during the period 1980 to 2001. Today, Jungle is largely cutting by man for different purpose. We must adopt strict and clear decision for preserving the forest otherwise; district may be converting into desert in future.

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