

Changes in General Land Use Pattern in Jalna District



Geography

KEYWORDS : Land use, cultivation, Physiographic, soil types, rainfall

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ABSTRACT

Very small geographical area of Jalna district is covered by forest during both the period i.e. for 1983-90 and 1997-2004. In 1983-90 (seven years average) nearly 0.74% area was occupied by forest and in last seven years the percentage of forested area was 0.79% in the study region. The land covered by rocks, out crops of hills, plateaus, mountains and deserts etc. is called barren land. Such type of land can be cultivated under any circumstances except at a very high cost. In the period 1983-90 (seven years average) nearly 9.60% area was under fallow land to the total geographical area of Jalna district. In last seven years means 1997-04 the percentage of total fallow land was 8.23% of total geographical area in the study region. Negative change is recorded in fallow land in Jalna (1.37%) district.

1. Introduction

Every inch of land is very important for human life. Land is a basic natural resource. Any society's economic, social and cultural progress depends upon land resources. In India worlds 2.4% land is available and 16% of the world's population has been living in our country. It is totally imbalanced so every inch of land should be used for any purpose with proper way with proper planning otherwise many problems related land may arise in India. The review of the changing land use pattern is very important for future orientation of land use planning. Land use changing affects on the physical, social economical and technological conditions.

Study of general land use surveys is a part of regional survey which was rather academic exercise. The study of general land use is always important for planning of any region whether that area small or large. Sauer (1919)¹ firstly depicted the land use by maps in the world. Studies of land use assumed greater academic practical importance, especially after the excellent contribution of Baker (1923)² in the United State of America, Buck (1937)³ in China.

Study Area :

In the present study, an endeavour is made to examine the spatial distribution of general land use, cropping pattern, tahsilwise area under irrigation, tahsilwise agricultural production in Jalna district.

In India the major agricultural problems are in drought prone area. "In India 123, districts of India have been classified as dry land areas with annual rainfall ranging between less than 500mm. to 1500mm. Dry land agriculture accounts for more than 70 per cent of the cultivated area of the country. The yields in dry tracts area low and run risk of a total crop failure as a result of erratic rainfall in Jalna district (N.Sreedhara & P. Venkat Laxi 2007)⁴ one of the district which is included in 123 dry district in India. The farmers are facing many problems in Jalna district. The topography, soils, climatic conditions, tahsilwise irrigational facilities & production are not equal in Jalna district so Jalna district has been selected for the research purpose.

Here in this study what have the changes taken place in different tahsils of Jalna district and how transformations were taken place as per time in Jalna district is covered.

1) Forest land use :

In 1983-90 the highest 2500 hectares of land was under forest in Jalna tahsil and the percentage of forested area was 1.30% to the total geographical area of Jalna tahsil. After twenty one years the forested area in Jalna tahsil was 0.94%. Nearly 1.22% area was under forest in Bhokardan tahsil, 0.53% in Ambad tahsil, 0.28% in Jafrabad and nearly 0.13% area was under forest in Partur tahsil during the period 1983-90. During the period 1997-2004 the highest area under forest was observed in Bokardan (1.22%) tahsil, 0.94% in Jalna tahsil, 0.89% in Ambad tahsil, 0.27% in Jafrabad tahsil and 0.33% in Partur tahsil.

The highest negative change in area under forest has been recorded in Jalna (-0.37%) tahsil and positive change in area under forest has been observed in Ambad (0.36%) tahsil and Partur (0.20%) tahsil. The static condition in area under forest has been observed in Bhokardan and Jafrabad tahsils during the period 1983-90 to 1997-2004 (Map No. 1 & 2).

2) Area Not Available For Cultivation:

The land covered by rocks, out crops of hills, plateaus, mountains and deserts etc. is called barren land. Such type of land can be cultivated under any circumstances except at a very high cost. In 1983-90, 40900 hectares or 5.29% was not available for cultivation in Jalna district out of total geographical area. The highest area not available for cultivation was found in Bhokardan (6.73%)

In last seven years i.e. 1997-2004 the highest area not available for cultivation was found in Jalna (13.20%) tahsil while the lowest area not available for cultivation was noticed in Partur (4.90%) tahsil. There was 58000 hectares or 7.49% of land was not available for cultivation in Jalna district. The area not available for cultivation was 7.04% in Bhokardan tahsil, 5.68% in Jafrabad tahsil, 5.26% in Ambad tahsil during the period 1997-04.

3) Other Uncultivated Land:

Other uncultivated area was decreased in Jalna, Bhokardan, Ambad and in Partur tahsil. The highest other uncultivated area was decreased in Jalna (3.55%) tahsil nad the lowest other uncultivated area was decreased in Ambad (0.22%) tahsil during the period 1983-90 to 1997-04. Positive change was recorded in Jafrabad (1.65%) tahsil.

4) Fallow Land :

Fallow land includes old fallow land and current fallow land. Permanently fallow land is found due to inadequate water supply or excess of moisture supply, extensive holdings and heavy clayey soils not possible easily filling at particular time. Many farmers kept their land fallow for increase fertility and to prevent soil exhaustion, current fallow land means that which is not used for cultivation from last one year and permanent fallow land means, such land not used for cultivation from last five years. Both the categories of land are clubbed in this study. Fallow land converted into net sown area.

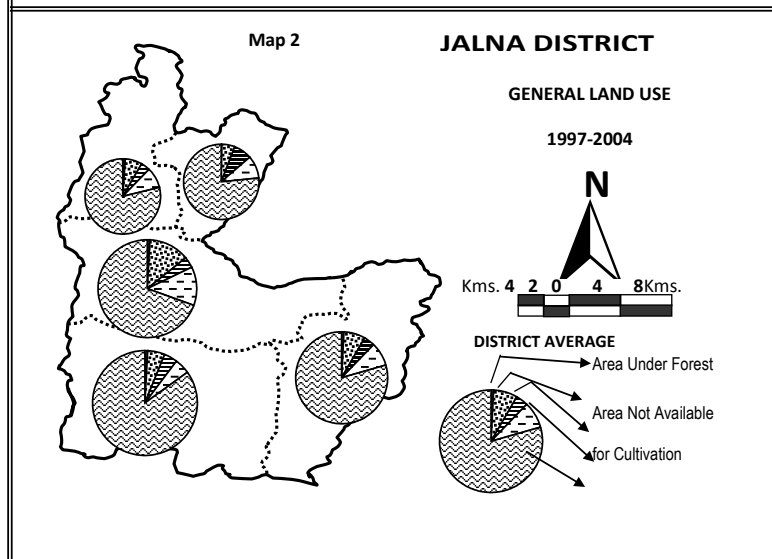
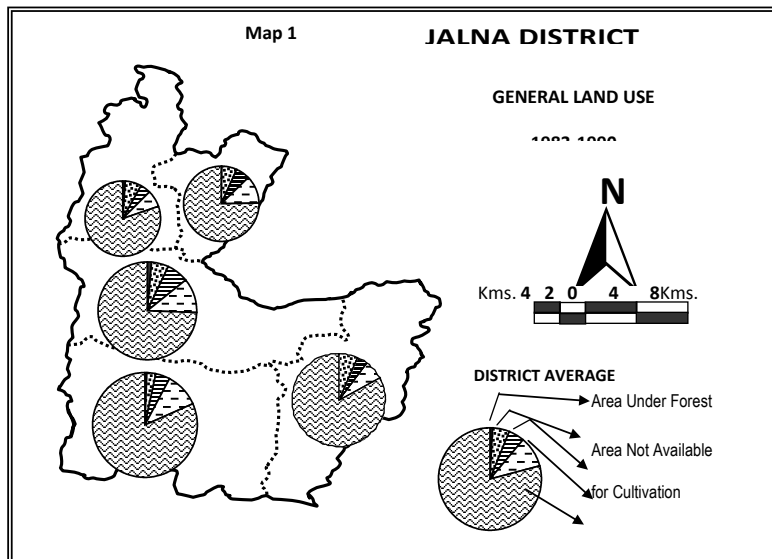
In the period 1983-90 (seven years average) nearly 9.60% area was under fallow land to the total geographical area of Jalna district. In last seven years means 1997-04 the percentage of total fallow land was 8.23% of total geographical area in the study region. Negative change is recorded in fallow land in Jalna (1.37%) district.

Table No. 1
Tahsilwise Trends in General Landuse in Jalna District

| Land use Category | Year | Jalna | Bhokardan | Jafraabad | Ambad | Partur | Total District |
|------------------------------------|-----------------------|--------------|------------|------------|-------------|-------------|----------------|
| Area Under Forest | 1983-90 | 25 1.30 | 16 1.22 | 2 0.28 | 12 0.53 | 2 0.13 | 57 0.74 |
| | 1997-04 | 18 0.94 | 16 1.22 | 2 0.27 | 20 0.89 | 5 0.33 | 61 0.79 |
| | Vol of ch. In Per.(%) | -0.37 | 0.00 | 0.00 | 0.36 | 0.20 | 0.05 |
| Area Not available for cultivation | 1983-90 | 109 5.69 | 88 6.73 | 47 6.46 | 63 2.81 | 102 6.66 | 409 5.29 |
| | 1997-04 | 253 13.20 | 92 7.04 | 42 5.68 | 118 5.26 | 75 4.90 | 580 7.49 |
| | Vol of ch. In Per.(%) | 7.52 | 0.31 | -0.79 | 2.45 | -1.76 | 2.20 |
| Other uncultivated Land | 1983-90 | 140 7.31 | 60 4.59 | 43 5.91 | 98 4.37 | 52 3.39 | 393 5.09 |
| | 1997-04 | 72 3.76 | 53 4.06 | 56 7.57 | 93 4.14 | 38 2.48 | 312 4.03 |
| | Vol of ch. In Per.(%) | -3.55 | -0.53 | 1.65 | -0.22 | -0.91 | -1.05 |

| Fallow Land | 1983-90 | 216 | 94 | 88 | 238 | 106 | 742 |
|-------------------------|---------|-------|-------|-------|-------|-------|-------|
| | | 11.27 | 7.19 | 12.10 | 10.61 | 6.92 | 9.60 |
| 1997-04 | | 240 | 115 | 72 | 106 | 104 | 637 |
| | | 12.53 | 8.80 | 9.73 | 4.72 | 6.79 | 8.23 |
| Vol of ch. In Per.(%) | | 1.25 | 1.61 | -2.37 | -5.88 | -0.13 | -1.37 |
| Net sown Area | 1983-90 | 1426 | 1050 | 547 | 1833 | 1270 | 6126 |
| | | 74.43 | 80.28 | 75.24 | 81.68 | 82.90 | 79.28 |
| | 1997-04 | 1333 | 1031 | 568 | 1907 | 1310 | 6149 |
| | 69.57 | 78.88 | 76.76 | 84.98 | 85.51 | 79.45 | |
| Vol of ch. In Per.(%) | | -4.85 | -1.39 | 1.52 | 3.30 | 2.61 | 0.17 |
| Total Geographical Area | 1983-90 | 1916 | 1308 | 727 | 2244 | 1532 | 7727 |
| | | 100 | 100 | 100 | 100 | 100 | 100 |
| | 1997-04 | 1916 | 1307 | 740 | 2244 | 1532 | 7739 |
| | 100 | 100 | 100 | 100 | 100 | 100 | |

Source : District Statistical Abstracts, Jalna district, 1983 to 2005.



Negative changes in fallow land have been recorded in Jafrabad, Ambad and Partur tahsil while positive changes have been observed in Jalna and Bhokardan tahsils during the period under study. The highest negative change in fallow land was recorded in Ambad (5.88%) tahsil while the lowest negative change has been observed in Partur (0.13%) tahsil during the period under study. The highest positive change has been noticed in Bhokardan (1.61%) tahsil while the lowest positive change has been recorded in Jalna (1.25%) tahsil during the period under study. (Map No. 3 & 4.)

Conclusion

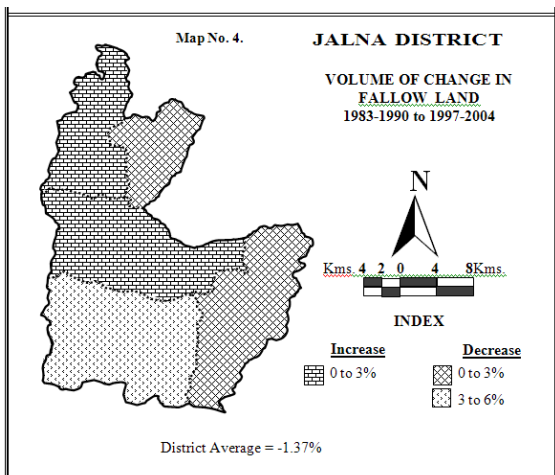
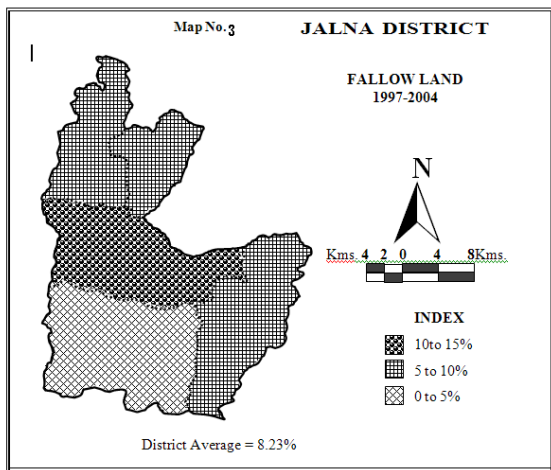
There is great variation in general land use in different tahsils of Jalna district in base year and last year period. Physiography of all the tahsils is not uniform. Area under forest has increased in Ambad & Partur tahsils but in Jalna tahsil it has decreased. Less than one percent area was under forest in all the tahsils of Jalna district except Bhokardan tahsil.

Area not available for cultivation has also increased in Jalna, Bhokardan & Ambad tahsil while in Jafrabad and Partur tahsils the area not available for cultivation has decreased.

Negative change in other uncultivated land has been observed in Jalna, Bhokardan, Ambad, Partur tahsils while positive changes have been recorded in Jafrabad tahsils during the period 1983-1990 to 1997-2004.

Positive changes in net sown area have been recorded in Jafrabad, Ambad and Partur tahsil and negative transformation has taken place in Jalna and Bhokardan tahsil during the period under study.

Fallow land has decreased in Ambad, Partur & Jafrabad tahsils while in Jalna & Bhokardan fallow land has increased during the period under study



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