



**A GEOGRAPHICAL ANALYSIS OF GHOD FOREST DIVISION,
JUNNAR, DISTRICT -PUNE**

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ABSTRACT:

Forest is one of most important resource which provides very valuable products and also played important role in balance of environment. The study is mainly focus on the conversion of forest land and encroachment on forest area in Ghod forest division. The forest land is used for various purposes under FCA 1980. The forest land also occupies by farmers mainly in plain area for agriculture. There is encroachment observed on forest land 20.396 hectares. The human activities and development processes influences on forest area, which results the diversion of forest land for non-forest purpose as well as encroachment.

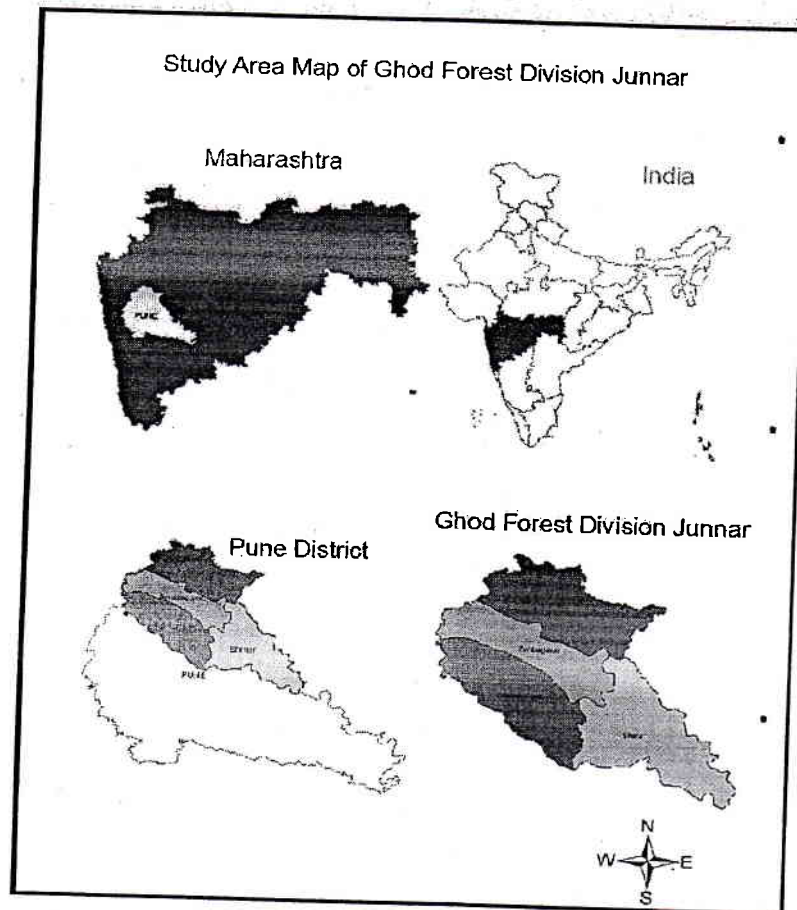
INTRODUCTION:

Forest plays very crucial role on the planet. It provides very valuable products to us such as timber, medicines, foods and many other forest products. It also helps conservation of environment, climatic balance, soil fertility, wildlife protection and recharge of groundwater.

Today human being's activities damage all natural resources, which is very harmful to all creatures on the earth surface. The rate of deforestation is alarming in the world. Indian forest department is trying to maintain such natural heritage in India. Since 1927 forest act has been implementing by Govt. of India in British Rule.

The study is mainly concerned with Ghod Forest Division Junnar of Pune Circle. The study area encompasses the forest areas of Junnar, Khed, Ambegaon, and Shirur talukas of Pune District. An independent Ghod Forest Division of Junnar was formed in the year 1964. Previously this division was a part of Pune Forest Division.

The study deals with the changes occur in Ghod Forest Division Junnar, physical aspects of area, diversion of forest land for non forest purpose and Forest act.



STUDY AREA:

The area dealt with under Ghod Project Division Junnar comprises of the reserved forest area 547.45 sq.km. and 27.33 Sq.km. of Unclassed forest with headquarter at Junnar. The forest area of this division spreads over that part of Pune district, which lies in the north of river Bhima and covers Khed, Ambegaon, Junnar and Shirur talukas. The total forest under this division is 574.68 sq.km. The forest area is scattered and distributed in eight ranges namely Otur, Junnar, Narayangaon, Ghodegaon, Rajgurunagar, Shirur, Chakan and Manchar. The forest area spreads between $73^{\circ} 31'$ to $74^{\circ} 30'$ East longitudes and $18^{\circ} 20'$ to $19^{\circ} 31'$ North Latitudes. The area is bound by North and East Ahmednagar District, on south Maval, Haveli and Daund Talukas of Pune district.

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Objectives:

The study is mainly concerned with following objectives:-

- To find out the impact of development process of human beings on forest.
- To find out the encroachment of human activities in forest area.

Database and Methodology:

The study is based on primary & secondary data. The primary data are collected by interviews with forest departments. The data related to various aspects of physiography, forest Area, land use pattern, have been obtained from the Government of Maharashtra Forest Department working Plan for Ghod Forest Division of Junnar of Pune Forest Circle. The data of conversion of forest and number of incidences detected have been compiled by the authors, from the working Plan for Ghod Forest Division of Junnar. It represents with cartographic and GIS techniques.

Physiographical aspects of Forest Area:

The physiography of this area has given rise to four major characteristics land forms Viz. 1) the hill and ghat section 2) the foot hill zones 3) the plateau and 4) the plains.

Talukawise area extend of such features are as under (Area in Sq. Km.)

Sr.No.	Talukas	Hill Ghats	Foot Hills	Plain	Plateau	Total
1	Junnar	625.00	558.00	226.00	00	1409.00
2	Ambegaon	770.50	226.00	19.50	00	1587.00
3	Shirur	80.00	259.00	914.00	334.00	1587.00
4	Khed	432.00	922.50	46.50	00	1401.00
Total		1907.50	1965.50	1206.00	334.00	5413.00

Source- Forest Department, Junnar

The area is undulating and hilly. The main range of Sahyadri stretching over sixty kilometers from north to south is a part of the western boundary of the area. From the high tableland on east the Sahyadris seem somewhat low and tame, but the western edge of their crest stands out from the Konkan with bold outline and cliffs which at places have a sheer drop over 1000 meters. Manjarmai hill which is the highest point is approximately 1600 meters above mean sea level. The average height of region is 400 meters. The physical aspect of the region is affect on the forest cover. Almost 72% area is covered by hills and foot hills and 22% and 6% area covered by Pains and Plateaus respectively.

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Distribution of Forest Area

The forest area is scattered and are distributed in eight ranges mainly Otur, Junnar, Narayangaon, Ghodegaon, Rajgurunagar, Shirur Chakan and Manchar. The Bhimashankar wildlife sanctuary has been excluded from the area dealt with under this Division.

The distribution of the gazette area of the forest in charge of forest department is as under:-

Sr.No.	Range	No. of villages	Forest area in Hactare		Total (Hect.)
			Reserved	Unclassed	
1	Otur	25	6970.515	14.135	6984.650
2	Junnar	67	7871.125	20.555	7891.680
3	Narayangaon	31	4817.070	800.550	5617.620
4	Ghodegaon	50	8262.250	1091.675	9353.925
5	Manchar	28	6126.775	82.38	6209.155
6	Rajgurunagar	46	7608.205	269.740	7877.945
7	Chakan	47	7940.725	144.340	8085.065
8	Shirur	49	5148.725	299.78	5448.72
Total			54745.605	2723.155	57468.760

Source- Forest Department, Junnar

The forest area is unevenly distributed in the region of Ghod Forest Division. Total forest area in charge of forest department is 57468.59 Sq. Km., which is about 12.32 percent of the total geographical area. The Ghod Forest Area is categorized into 'Reserved forest' and Unclassed Forest. Reserved forest comprising of 54745.605 hectares and Unclassed Forest is 2723.155 hectares of area. The total area is 57468.760 hectares. 95% of area is under reserved forest and only 5% area is under unclassified forest.

The Land use Pattern of this Area:-

Sr. No.	Tahsil	Geographical Area	Forest	N.A. for Agri.	Gairan	Horticulture	West land	Area under Agriculture
1	Junnar	1384	20876	9789	2714	91	2791	118459
2	Ambegaon	1043	24300	6660	9348	702	17646	673031
3	Shirur	1557	6019	15137	9397	1576	9968	183067
4	Khed	1400	20079	9375	12230	921	12146	77652
	Total	5384	71274	40961	33689	3290	42551	466481

Source- Forest Department, Junnar

The total population of Junnar, Ambegaon, Khed and Shirur tahsil comprising of Ghod Division is 1218791, which average to about 215 persons per Sq.Km. Population is increasing at an alarming rate. Agriculture is the main occupation of the people and about 76% of the total geographical area is under cultivation under various food grains and cash crops. Only 12% area is under forest cover.

Tahsilwise Forest Area Diverted for Non Forest Purpose:-

Sr.No.	Range	No. of villages	Total (Ha)
1	Otur	5	332.63
2	Junnar	5	12.876
3	Narayangaon	4	4.10
4	Ghodegaon	18	60.19
5	Manchar	12	44.52
6	Rajgurunagar	--	--
7	Chakan	6	36.869
8	Shirur	10	15.741
Total			504.93

Source- Forest Department, Junnar

The table showing that forest area diverted for non forest purpose under F.C.A. 1980. The total area of forest land is converted to non forest purpose, is 504.93 hectares from 1980. Otur range has been observed large area diverted for non forest is 332.63 ha. including 65.88% followed by 60.19 ha. area of Ghodegaon range, Manchar range 44.52 ha. area and Chakan range 36.869 ha. area and comprises 11.92%, 8.82%, 7.30% area respectively. Junnar, Narayangaon and Shirur ranges have been negligible conversion. Only Rajgurunagar range is not registered any diversion incidence.

Project wise Forest Area Diverted for Non Forest Purpose:-

Sr.No.	Agency/Project	Area (Ha.)
1	Archeology Department at Shivneri	3.640
2	Chandrapur Padgha Transmission Line	3.822
3	Ningiri Ghatghar Road	0.108
4	Kukadi Irrigation Project	1.210
5	Government Ashram school	20.34
6	Manikdoh Dam	4.376
7	Dimbhe Dam	49.760

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8	Pimpalgaon Dam	312.290
9	Ranjani Pimperkhed Distributery	15.160
10	Dimbhe Left Bank Canal	28
11	Dimbhe Right Bank Canal	24.44
12	Malin to Ambhephata Road	0.93
13	Agriculture Water Supply	0.300
14	400 K.V. Electricity Line	36.869
15	Water Supply Line	0.137
16	Kolhapur Type Ware	3.494
Total		504.876

Source- Forest Department, Junnar

The table shows that forest area is diverted for non forest purpose. The development activities of human beings have been raised and this will damage forest cover and forest land. Dams, roads, electricity lines, water supply pipeline, canals, and schools are the indicators of the development which are necessary. In the Ghod forest division forest land mostly converts into Dam project because west side of this division is hilly. Junnar tahsil have five dams. Pimpalgaon dam covers 312.29 hectares of forest land followed by Dimbhe Dam 49.760 hectares, Manikdoh Dam 4.376 hectares, which is 72.58 percent of total diverted forest area. 67.6 hectares area covers by canals comprises 13.39% of area. Electricity lines cover 36.869 hectares land comprises 7.30% area. Others project covers 6.70% negligible area comprises Government Ashram schools, roads, water supply line, Kukadi agriculture project and Kolhapur type ware.

Area under Encroachment in Junnar forest Division

Sr.No.	Range	Village	Survey/Gut No.	Cmpt No.	Area (ha)
1	Narayangaon	Nimdari	48/888	105	2.530
2	Narayangaon	Kawal Pimpari	42/144	114	2.000
3	Narayangaon	Pargaon Tarfe Ale	148/474	115	0.096
4	Manchar	Jawale	26/95	112	0.420
5	Chakan	Kahrabwadi	645/252	265	0.230
6	Shirur	Koregaon Bhima/Sanaswadi	672 676 675	303	13.120
7	Shirur	Takali Bhima	139/917	302	2.000
Total					20.396

Source- Forest Department, Junnar

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Table shows the encroachments are there in Junnar division. The area is being used for cultivations. The total area under encroachment is 20.396 hectares. Shirur tahsil registered large area under encroachment which is 15.120 hectares.

Cases Detected in Junnar Forest Division since 1990-91 to 2004-2005

Year	Grazing	Illicit Cutting	Fires	Others	Total
91-92	345	171	57	52	625
92-93	346	218	68	44	676
93-94	217	235	74	57	583
94-95	358	232	65	57	712
95-96	254	169	31	87	541
96-97	235	301	100	97	733
97-98	336	359	89	80	864
98-99	262	215	90	46	613
99-2000	235	225	67	30	557
2000-01	106	231	72	16	425
2001-02	123	200	53	26	402
2002-03	119	140	22	48	329
2003-04	211	153	16	97	477
2004-05	117	207	30	51	405
Total	3264	3056	834	788	7942

Source- Forest Department, Junnar

The division has been under tremendous pressure of illegal grazing, illicit cutting and fires. From 1991-2005, 7942 cases were registered in this project. In which number of cases registered as illegal grazing 3264, illicit cutting 3056, forest fires 834 and others 788. The cattle population has increased many folds in last 15 years and because of this grazing pressure has also increased at alarming rate. Junnar forest division is very rich in biodiversity. Many species of plant are found here, which is very valuable. Among them Sandal and Teak trees are mostly affected by illicit cutting.

CONCLUSION:

1. Almost 72 percent of forest area lies in the hills and foothills area. The division has accounted only 12% area under forest cover.
2. Ghod forest division comprises of 95 percent reserved forest and 5 percent of unclassified forest covers. Beside that number of Cases Detected in Junnar Forest Division Since 1990-91 to 2004-2005. In

which illegal grazing and illicit cutting of trees and forest fires was mostly registered.

3. 504.876 hectares of area diverted for non forest purpose under F.C.A. 1980 from 1991 to 2005 for Dams, Canals, Roads, Govt. Ashram schools, electricity line, water supply Line, transmission Line and Kukadi Irrigation Project. The development processes of human beings made certain changes in forest area; forest area is diverted for many purposes, this will harmful to plants and wildlife animals.
4. The western part of the region is mostly hilly and receives maximum rainfall. The area is more suitable for dam site and hence there are five dams in Junnar tahsil. 72.58% of area of total diverted land to dam purpose.
5. There is encroachment observed on forest land 20.396 hectares of area by the cultivators. Mostly the area under encroachment found in plains.

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