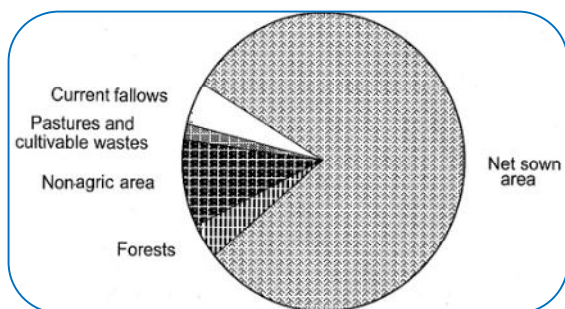




LAND USE PATTERN IN HARYANA-A BRIEF ANALYSIS

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ABSTRACT :

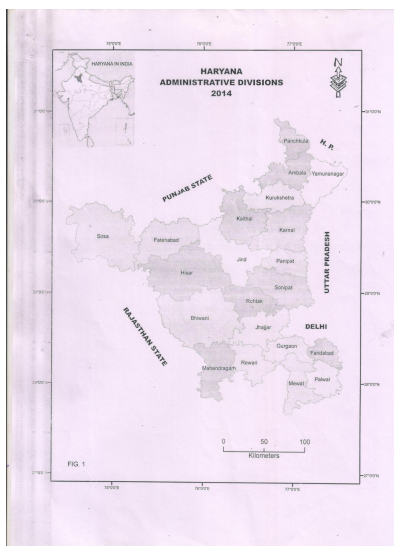
The layout or arrangement of the uses of the land is known as land use pattern. Land use pattern includes types of land and how much land is being utilized under different uses. As per rule the land use pattern is a systematic arrangement of various classes of land to understand the utility to satisfy the needs of the population. Land use classification is very much helpful to the planners and policy makers to make rational use of land. Due to increase in population in Haryana, area

under cultural uses is also increasing and it is leading to decline in cultivated area.

KEYWORDS : land use pattern , systematic arrangement , planners and policy makers.

INTRODUCTION OF THE STUDY AREA.

Haryana State came into existence as seventeenth state of India on 1 November 1966. The total geographical area of Haryana State is 44212 sq. km. It extends between 27⁰39'N to 30⁰55'N latitudes and 74⁰27'E to 77⁰36'E longitudes. Himachal Pradesh is situated in the north-east, Punjab in the north-west and the Yamuna River separates it from Uttar Pradesh. Rajasthan determines its boundary in the south and west.



LAND USE PATTERN

There are various factors which determine the land use of any region. Configuration of land, types of soils, water supply, density of population, and techniques of agriculture are the main factors which control the land-use of a region. The possibilities of making the land use more intensive depend mainly on creating large scale irrigational facilities, big reclamation measures, correction soil exhaustion, major part of the cultivable land under plough and new management technique. In these days when population presented a new challenge, the optimum use of land has become very important factor for man's social development. The general land use in Haryana in 1989-90 and 2013-14 is given below.

Districtwise General Land-use in Haryana (2013-14)

District	Forest 1	Land available not for cultivation 2		Total	Other uncultivated land excluding fallow land 3			Total	Fallow land 4		Total	Net area sown 5
		Land put to non agricult ural uses 2(a)	Barren and uncult urable land 2(b)		perman ent pasture s and other grazing lands 3(a)	Land under misc. tree crops and goves not includ ed in net area sown 3(b)	Cultu rable but barre n land 3C		Fallo w land othe r than curre nt fallo w 4(a)	Cu rre nt fallo w 4 (b)		
Ambala	0.6	26.2	1.9	28.1	1	-	-	1.2	-	-	-	70.1
Panchkula	1.8	23.8	1.8	25.6	-	1.8	12.7	14.5	14.6	9.0	23.6	34.5
Yamunana gar	8.1	17.4	1.1	18.6	1.6	-	-	1.3	-	-	-	72.0
Kurukshet ra	0.6	10.9	-	10.9	-	-	0.7	0.7	-	-	-	87.8
Kaithal	1.3	9.2	0.4	9.6	-	-	-	-	-	-	-	89.0
Karnal	0.4	6.5	6.0	12.6	3.6	0.4	0.4	0.4	-	3.8	3.8	78.8
Panipat	0.7	14.6	0.7	15.3	3.8	-	0.7	0.7	-	6.9	6.9	72.5
Sonipat	0.5	22.5	3.3	25.9	1.4	0.9	-	-	-	-	-	71.5
Rohtak	0.3	10.2	3.0	13.2	-	-	1.8	1.8	-	2.4	2.4	82.3
Jhajjar	-	4.2	5.8	10.0	-	-	3.7	3.7	8.4	5.2	13.6	72.7
Faridabad	0.6	55.5	2.7	58.2	-	-	-	-	-	1.2	1.2	40.0
Palwal	2.2	8.8	3.7	12.5	0.8	-	-	0.8	-	7.8	7.8	76.7
Gurugram	2.5	30	-	30.0	0.8	-	0.8	1.6	-	0.9	0.9	65.0
Nuh	-	6.8	16.9	23.7	0.6	-	-	0.6	-	0.7	0.7	75.0
Rewari	1.3	9.2	3.3	12.5	0.6	-	1.9	2.5	-	0.6	0.6	83.1
Mahender garh	1.0	15.9	3.0	19.0	-	-	0.5	0.5	-	1.5	1.5	78.8

Bhiwani	0.4	5.8	4.5	10.3	-	0.9	-	0.9	-	2.6	2.6	85.8
Jind	0.3	10.4	-	10.4	-	0.3	-	0.3	-	-	-	89.0
Hisar	0.2	10.6	1.4	12.0	-	-	-	-	-	5.4	5.4	82.4
Fatehabad	-	9.1	0.7	9.3	-	-	-	-	1.1	-	1.1	89.1
Sirsa	0.2	5.2	-	5.2	-	-	-	-	-	1.6	1.6	93.0
Haryana 2013-14	0.8	11.9	2.7	14.6	0.6	0.2	0.5	1.3	0.6	2.7	2.7	80.5
Haryana 1989-90	3.78	5.54	3.53	9.07	0.59	0.07	0.57	1.23	-	4.7	4.76	81.1
										6		6

Source: Statistical abstract of Haryana, Panchkula 1988-89, 1990-91, 2013-14 and 2014-15

(-) Districts were not in existence

FORESTS

Major parts of Haryana cannot carry forests either for climatic reasons or due to heavy population pressure on arable land, which is nearly level and easily workable alluvial plain more suitable for cropping. In 2013-14, the maximum percentage of forests (above 5%) is in hilly areas of Siwalik in Yamunanagar district. This district has 8.1 per cent area under forests due to hilly tract. Gurgaon and Palwal districts have this percentage between 2 and 5. The concentration of forests cover is between 1 and 2 per cent in Mahendergarh, Rewari, Kaithal and Panchkula districts. District Ambala, Kurukshetra, Karnal, Panipat, Sonipat Rohtak, Jhajjar, Faridabad, Bhiwani, Jind, Hisar, Fatehabad and Sirsa have below 1% forests. The heavy dependence of rural people on farming is an important factor in acquiring land for afforestation. The main problem to the afforestation process is the moisture deficit in south western parts of the state.

In 1989-90, the highest percentage of forests (above 5 %) was in the Ambala district. This district had 17.64 % area under forests due to hilly tract. District Gurugaon had this percentage between 4 and 5. Karnal and Sonipat districts had this concentration between 3 and 4 per cent. It was very low (below 3%) in south-eastern and western parts of the state.

LAND NOT AVAILABLE FOR CULTIVATION:

The area under non-agricultural uses covered with roads, buildings, graveyards, cremation grounds water bodies etc. and barren and uncultivable land is included in this category covering 14.6% in 2013-14. This land cannot be brought under cultivation because of either natural or cultural factors. The extension of this type of land is associated with the socio-economic changes. In 1989-90 this category of land covered 9.07 per cent .

(a) Land put to non agricultural uses:

The extension of area under non-agricultural uses is associated with socio-economic changes. Henceforth, it can be suggested that the volume of this category of land directly used for economic development is an ideal indicator for looking at the economic progress of rural areas (Singh 1967). Areas of high proportion over 15 percent exist in Ambala, Panchkula, Yamunanagar, Sonipat, Gurgaon, Faridabad, and Mahendergarh districts due to increase in population in 2013-14. Areas of moderate concentration (10-15%) are confined to Kurukshetra, Panipat, Rohtak, Jind and Hisar Districts. Low proportions below 10% are found in Kaithal, Karnal, Jhajjar, Palwal, Nuh, Rewari, Bhiwani, Fatehabad and Sirsa Districts due to low industrial development.

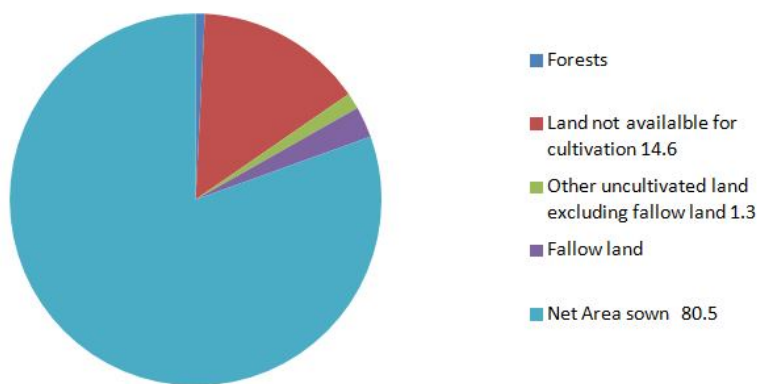
In 1989-90, the areas of high proportion (over 10%) were existing in Gurgaon and Faridabad districts in the south-eastern part of the State due to urbanization and industrial development. Areas of moderate concentration (8-10%) were confined to Ambala, and Mahendragrah districts due to increase in population. Karnal, Rohtak and Sonapat districts had this concentration between 6 and 8 percent. Kurukshetra and Jind

districts in the middle-north and Hisar, Sirsa and Bhiwani districts in the western parts of the state due to low industrial development.

BARREN AND UNCULTURABLE LAND:

The above table No. 2.5 Presents the distribution of barren and un-culturable land and highlights the concentrations for which schemes of green convery may be prepared. The percentage of barren and unculturable land is very high (above 4%) in Bhiwani, Nuh, Jhajjar and Karnal districts. The high proportions between (3-4%) are found in Mahendergarh, Rewari, Palwal, Rohtak and Sonipat districts. Faridabad district has this proportion between 2 to 4 percent. Ambala, Panchkula, Yamunanagar, Hisar, Kurukshetra, Kaithal, Panipat, Jind, Hisr, Fatehabad, Sirsa and Gurugram districts have this proportion below 2 percent. Sirsa, Jind, Gurugram, and Kurukshetra have no area under this category.

**Land Use in Haryana
2013-14**



Other Uncultivated land (excluding fallow land)

The permanent pastures and other grazing lands, land under miscellaneous trees crops and groves (Which are not included in the net area sown) and culturable waste lands are included in this category. The total uncultivated lands are 1.3% of the total geographical area. Panchkula and Jhajjar districts occupy above 3 % area under this category due to highest area (12.5%) under culturable barren land and 1.8% land under misc. tree crops and groves. In 2013-14, District Rewari falls in the category of 2-3 % area under other uncultivated land. Gurgaon, Rohtak, Yamunanagar, and Ambala districts cover 1-2% under this category.. Kurukshetra, Karnal, Panipat, Palwal, Nuh, Mahendergarh, Bhiwani and Jind districts fall in the category below 1%. Kaithal, Sonipat, Faridabad, District Fatehabad, Hisar and Sirsa have nil area under other uncultivated land excluding fallow land. The impact of social and economic and techno-organization is reflected in distinctive decrease of cultivable waste land. The area of uncultivated land has decreased with reclamation of land with improved rural technology.

In 1989-90, the percentage of barren and unculturable land was very high (above 6%) in Hisar district due to shifting course of Ghaggar river and streamlets. The high proportions (4 to 6%) were found in district Mahendergarh, Faridabad and Bhiwani in the souther parts and Jind district in middle-northern part of the state, due to semi-arid sandy and rocky surfaces. The proportion were between 2 and 4% in Ambala, Karnal and Sonipat districts in north-eastern part and Gurgaon district in the southeastern part of Haryana. Rohtak and Kurukshetra districts had this proportion below 2 per cent. District Sirsa had no area under barren and unculturable land.

FALLOW LAND:

It denotes cultivable land left uncultivated during the current year or for some periods. Fallowing is practiced mainly to enable the land to recuperate. Fallowing also becomes necessary under too wet or too dry conditions when no crop can be sown.

The fallow land is 2.7 % in 2013-14 in the State. Panchkula, Panipat, Jhajjar, Hisar and Palwal districts have fallow land above 4%. Kurukshetra district covers fallow land between 3 and 4 per cent. Bhiwani and Rohtak districts occupy fallow land between 2 and 3 per cent. Sirsa, Mahendergarh, Jind, Sonapat, Kaithal, Kurukshetra, Yamunanagar and Ambala district cover fallow land below 2%.The fallow land has disappeared from Fatehabad Jind, Sonapat, Kaithal, Kurukshetra, Yamunanagar and Ambala districts as shown in above table.

NET AREA SOWN

In 2013-14 the net area sown is 80.5% in the state. The increase in net area sown is the result of expansion in cultivated area. District Sirsa, Fatehabad, Jind, Bhiwani, Kaithal and Kurukshetra have net area sown above 85%. Nuh, Mahendergarh, and Karnal districts have net area sown between 75 and 80 per cent. Ambala, Panchkula, Yamunanagar, Panipat, Sonapat, Jhajjar, Faridabad, Palwal and Gurgram districts are having net area sown below 75%. Regional differences in the spread of net area sown are associated with relief, soil, climate, farm size and socio-economic factors.

In 1989-90, the net area sown was 81.16 % of the total geographical area in Haryana. District Kurukshetra and Kaithal had 92 per cent area under this category. The improved intensity of irrigation led to reduction in fallowing, hence net area sown increased. District Bhiwani, Rohtak and Sirsa had net area sown between 84 and 94 percent. Hisar, Jind, Sonapat, Panipat and Karnal, Mahendergarh, Faridabad and Rewari districts were having net area sown between 76 and 84 percent. The improved intensity of irrigation and methods of dry farming in these areas led to reduction in fallowing. District Gurugaon occupied this category between 68 and 76 percent. Ambala district in the north-eastern part of the state had below 68 % net area sown due to hilly terrain of north-east Haryana.

CONCLUSION

To sum up the changes in land use pattern of Haryana during 1989-90 to 2013-14 It has been concluded that the forest land has decreased from 3.78 per cent in 1989-90 to 0.8 per cent in 2013-14 showing a negative trend. At the same time, land not available for cultivation has increased from 9.07 to 14.6 per cent showing a positive trend. Other uncultivated land excluding fallow land has shown a little increase. It has increased from 1.23 per cent in 1989-90 to 1.3 per cent in 2013-14. Fallow land has decreased from 4.76 per cent in 1989-90 to 2.7 per cent in 2013-14. Area under net area sown has decreased from 81.16 per cent in 1989-90 to 80.5 per cent in 2013-14 in the study region.

REFERENCE:

- 1.Singh,J. (2015) Dynamics of land use pattern in Punjab, IJSS interdisciplinary research ,Volume-4(6)
- 2.Statistical Abstract of Haryana, 1988to 1991,3
- 3.Mangalagowri, B.H. Nagraj (2017) Changing pattern of land use and its impact on Agriculture: A case study of Mysore district, Scholarly research journal for interdisciplinary studies, vol-4, No. 37
4. Statistical abstract of Haryana, Planning Department, Year 2013-14 to 2015-16 .



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