Research Paper Geography

Land Use Pattern in Western Uttar Pradesh

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ABSTRACT

: Land use pattern is envisaged on land capability. Land is one of the important resources which plays dominant role in determining human economic, social and cultural progress. .Land Use Pattern is mainly determined by economic, institutional and physical structure. Land area in India is ample but that needs proper care to survive and sustain. The proper utilization of the land is the economic backbone of a region. The total reporting area of western Uttar Pradesh is 7300536 hectare out of which a big proportion of 5597634 hectare (76.67%) is under net sown area followed by other land non agriculture of 833895 hectare (11.42%), forest 331872 hectare (4.55%), current fallow land 181740 hectare (2.49%), old fallow land 99931hectare (1.37%), groves and gardens 45821 hectare (0.63%), barren and un-cultivated land 112952 hectare (1.55%), cultivated waste land 83112 hectare (1.14%) and pasture land13579 hectare (0.19%). Humans are the major force of change around the globe, transforming land to provide food, shelter, and products for use. The main objective of the paper is to outline the land use change in western Uttar Pradesh during (2001-2011).

KEYWORDS

Land Utilization, Land use pattern, land use change, Land Management, Net sown area, Pasture land, Cultivable waste land, Current fallow land, Old fallow land, Non- cultivated land, Other Land excluding agriculture, Pasture land, Land under Groves and Gardens.

Introduction

Land use involves the management and modification of natural environment or wilderness into built environment such as settlements and semi-natural habitats such as arable fields, pastures, and managed woods. LAND USE is referred to "man's activities and the various which are carried on land" LAND COVER is referred to "natural vegetation , rock/soil artificial cover and other noticed on the land" (NRSA 1989). The rapid population growth along with economic development, urbanization and industrialization create tremendous pressure on the limited natural resource base in a country as well as state like Uttar Pradesh. This makes serious challenge to us like researchers and policy makers to strike a balance in the use of natural resources, keeping in mind the need for their conservation of sustainable development and food and livelihood security. There are two sets of limits which determine the pattern of land use in any particular region. First, the absolute or outer limits which are set by nature and second, the relative limit set by culture, human attitudes and actions which determine the range of actual and probable use within the limits (Zimmermann, 1951).

Western Uttar Pradesh has experienced rapid economic growth, in a fashion similar to Haryana and Punjab, due to the successes of the Green Revolution. A major part of western Uttar Pradesh is a part of National Capital Region of India. Western Uttar Pradesh covering an area of 7300536 km2 (29.96% of the state). Western Uttar Pradesh consists of 26 districts in six divisions. Western Uttar Pradesh shares borders with the states of Uttarakhand, Haryana, Delhi, Rajasthan and Madhya Pradesh, as well as a brief international border with Nepal in Pilibhit district. Western Uttar Pradesh receives rain through the Indian Monsoon and the Western Disturbances. The soil tends to be light retextured loam, with some occurrences of sandy soil Meerut division.

Many works have been done by geographers related to land use. The country level studies reported that while there is tendency for land shifts to the agricultural sector, there is also a positive growth trend in fallow lands which ultimately tend to move into cultivable wastes (Pandey and Tewari, 1996). State level studies reported a diversion of common land to non-agricultural uses in Tamil Nadu. There were also indications of a sharp increase in other fallows (Ramasamy et a!, 2005). Also Chatterjee, (1952) done land utilization survey of Howrah district (West Bengal). Singh, (1962) studied Land utilisation in Chakia Tahsil of Banaras district (U.P.). Mishra, (1966) worked on recent change in land use in the Tarai Region of Uttar Pradesh. Shafi, (1969) presented a plan for land use and classified the land categories and their capability. Singh, (1970) focused on land use pattern in Mirzapur and its environs. Pandey and Tewari (1987) reported the operation of the vicious cycle in Uttar Pradesh. Reddy (1991) in a study on Andhra Pradesh, focused on technological factors affecting land use. Prasad, (2006) presented an analysis on land use change and environmental degradation in Dhanbad district (Jharkhand). The study of land use pattern is of prime concern to geographers to know the relationship between man and natural environment (Tripathi and Vishwakarma, 1988).

In India, also other several geographers have paid attention on different aspects of land use studies at regional, district and micro level. Some of the eminent researchers who have carried out research work on different aspects of land use studies are chatter see (1952), Shaffi (1961, 1966,1968); Prakash Rao (1959); Jasbir Singh (1974); Roy(1968) and Mishra (1990);.

Objectives and Methodology

The main objective of the study is analysing the existing land use pattern comparing the date of 2000–2001 to 2010-11 in Western Uttar Pradesh. The study is based on the secondary data which are obtained from the governmental and non-governmental sources basically from office of Statistics and Economics section, Planning Department, Govt. of Uttar Pradesh. Land use change have been analysed by comparing the year of 2001 and 2011. The area averages for the triennium ending 2000-2001 and 2010-11 were worked out to study the changing composition of different land use classes across districts in Western Uttar Pradesh. Statistical calculation, tables, diagrams and maps are draw with help of computer.

TABLE 1. AREA UNDER VARIOUS LAND CLASSES (2001and 2011) (in hectare)

	Reporting Area For Land Utilisation Statistics		Forests		Culturable Waste Land		Current Fallow		Fallow Lands Other than Current Fallows	
District Name	2001	2011	2001	2011	2001	2011	2001	2011	2001	2011
Agra	398060	398970	45437 (11.41)	35691 (8.95)	3325 (0.84)	2381 (0.60)	10468 (2.63)	18743 (4.70)	6171 (1.55)	5089 (1.28)
Aligarh	369694	371261	2680 (0.72)	2577 (0.69)	6668 (1.80)	5330 (1.44)	3685 (1.00)	6110 (1.65)	9107 (2.46)	5277 (1.42)
Amroha	439679	216879	11857 (2.70)	20893 (9.63)	2883 (0.66)	892 (0.41)	5597 (1.27)	3179 (1.47)	2439 (0.55)	1137 (0.52)
Badaun	520028	425466	6903 (1.33)	4304 (1.01)	6465 (1.24)	3301 (0.78)	14528 (2.79)	7366 (1.73)	16373 (3.15)	8137 (1.91)
Bagpat	134531	134983	1525 (1.13)	1525 (1.13)	1906 (1.42)	1616 (1.20)	2421 (1.80)	2896 (2.15)	1236 (0.92)	833 (0.62)
Bareilly	407490	406915	226 (0.06)	352 (0.09)	2108 (0.52)	0.41 (0.41)	6523 (1.60)	13587 (3.34)	4639 (1.14)	3262 (0.80)
Bijnor	464578	464545	43816 (9.43)	54898 (11.82)	3525 (0.76)	3642 (0.78)	8063 (1.74)	3089 (0.66)	3088 (0.66)	3524 (0.76)
Bullandshahr	359878	364974	7544 (2.10)	7795 (2.14)	8220 (2.28)	4314 (1.18)	3146 (0.87)	3795 (1.04)	4609 (1.28)	1036 (0.28)
Etah	445892	244068	3075 (0.69)	1033 (0.42)	32214 (7.22)	12946 (5.30)	16593 (3.72)	10212 (4.18)	21718 (4.87)	9130 (3.74)
Ferozabad	235733	241180	8611 (3.65)	8646 (3.58)	3999 (1.70)	3025 (1.25)	8130 (3.45)	6293 (2.61)	8885 (3.77)	6643 (2.75)
Gautam Buddha Nagar	195493	125422	400 (0.20)	2003 (1.60)	4555 (2.33)	1951 (1.56)	7485 (3.83)	18665 (14.88)	8274 (4.23)	6510 (5.19)
Ghaziabad	201005	154252	2470 (1.23)	1644 (1.07)	3703 (1.84)	2953 (1.91)	9089 (4.52)	4131 (2.68)	5139 (2.56)	2901 (1.88)
Hapur	201005	118722	2470 (1.23)	2997 (2.52)	3703 (1.84)	100 (0.08)	9089 (4.52)	8856 (7.46)	5139 (2.56)	842 (0.71)
Hathras	178968	180155	2090 (1.17)	1770 (0.98)	2284 (1.28)	1431 (0.79)	2476 (1.38)	1910 (1.06)	3823 (2.14)	2588 (1.44)
Kasganj	205999	195601	1629 (0.79)	2058 (1.05)	13818 (6.71)	10213 (5.22)	6722 (3.26)	5996 (3.07)	8458 (4.11)	4584 (2.34)
Mainpuri	273060	272723	2154 (0.79)	1775 (0.65)	9254 (3.39)	6745 (2.47)	15411 (5.64)	13834 (5.07)	19836 (7.26)	16003 (5.87)
Mathura	329641	330328	1497 (0.45)	1592 (0.48)	5562 (1.69)	5385 (1.63)	4586 (1.39)	6384 (1.93)	7388 (2.24)	2712 (0.82)
Meerut	275973	273005	26787 (9.71)	21314 (7.81)	2748 (1.00)	2446 (0.90)	2197 (0.80)	2996 (1.10)	3299 (1.20)	2200 (0.81)
Moradabad	375865	254208	223 (0.06)	48 (0.02)	1602 (0.43)	866 (0.34)	7683 (2.04)	5712 (2.25)	2647 (0.70)	1499 (0.59)
Muzaffarnagar	412335	331125	17352 (4.21)	19536 (5.90)	3006 (0.73)	1390 (0.42)	4466 (1.08)	4997 (1.51)	3258 (0.79)	1809 (0.55)
Pilibhit	357224	378384	80156 (22.44)	80010 (21.15)	3544 (0.99)	3159 (0.83)	1767 (0.49)	6629 (1.75)	1779 (0.50)	1722 (0.46)
Rampur	235717	235726	6611 (2.80)	6611 (2.80)	342 (0.15)	204 (0.09)	2759 (1.17)	2918 (1.24)	277 (0.12)	465 (0.20)
Saharanpur	357001	363791	33229 (9.31)	33229 (9.13)	1411 (0.40)	678 (0.19)	2500 (0.70)	2628 (0.72)	1374 (0.38)	1533 (0.42)
Sambhal	-	248372	-	616 (0.25)	-	2197 (0.88)	-	5084 (2.05)	-	2995 (1.21)
Shahjahanpur	457613	437469	10499 (2.29)	10499 (2.40)	4681 (1.02)	3560 (0.81)	18099 (3.96)	14027 (3.21)	8995 (1.97)	6825 (1.56)
Shamli	236762	132012	17352 (7.33)	8456 (6.41)	2006 (0.85)	736 (0.56)	3466 (1.46)	1703 (1.29)	2258 (0.95)	675 (0.51)
Total	8069224	7300536	336593 (4.17)	331872 (4.55)	133532 (1.65)	83112 (1.14)	176949 (2.19)	181740 (2.49)	160209 (1.99)	99931 (1.37)

TABLE 1. (CONCLD.)

	Barren and Un Culturable Land		Area Under Non Agricultural Uses		Permanent Pastures and Other Grazing Lands		Land Under Misc Tree Crops and Groves		Net Area Sown	
District Name	2001	2011	2001	2011	2001	2011	2001	2011	2001	2011
Agra	5483 (1.38)	3949 (0.99)	37166 (9.34)	40945 (10.00)	919 (0.23)	896 (0.22)	451 (0.11)	8485 (2.13)	288640 (72.51)	282791 (70.88)
Aligarh	11154 (3.02)	6051 (1.63)	33795 (9.14)	39903 (4.70)	1811 (0.49)	1731 (0.47)	501 (0.14)	328 (0.09)	300293 (81.23)	303954 (81.87)
Amroha	13580 (3.09)	1148 (0.53)	17966 (4.09)	17439 (16.60)	191 (0.04)	196 (0.09)	1167 (0.27)	215 (0.10)	171358 (38.97)	171780 (79.21)
Badaun	10285 (1.98)	9172 (2.16)	43156 (8.30)	36000 (3.96)	431 (0.08)	278 (0.07)	6762 (1.30)	7050 (1.66)	413978 (79.61)	349858 (82.23)
Bagpat	1960 (1.46)	1976 (1.46)	14960 (11.12)	16842 (38.86)	101 (0.08)	86 (0.06)	18 (0.01)	73 (0.05)	110404 (82.07)	109136 (80.85)
Bareilly	10710 (2.63)	6266 (1.54)	50107 (12.30)	52461 (13.73)	801 (0.20)	340 (0.08)	2339 (0.57)	2747 (0.68)	330037 (80.99)	326249 (80.18)
Bijnor	9233 (1.99)	3919 (0.84)	51953 (11.18)	55882 (8.99)	419 (0.09)	489 (0.11)	6382 (1.37)	2718 (0.59)	338099 (72.78)	336384 (72.41)
Bullandshahr	6147 (1.71)	5984 (1.64)	33915 (9.42)	41756 (5.91)	851 (0.24)	953 (0.26)	8934 (2.48)	627 (0.17)	286512 (79.61)	298714 (81.85)

Etah	6384 (1.43)	2319 (0.95)	40720 (9.13)	21577 (10.40)	834 (0.19)	328 (0.13)	1850 (0.41)	601 (0.25)	322504 (72.33)	185922 (76.18)
Ferozaba	7990 (3.39)	7820 (3.24)	20039 (8.50)	25384 (11.60)	667 (0.28)	624 (0.26)	1434 (0.61)	595 (0.25)	175978 (74.65)	182150 (75.52)
Gautam Buddha Nagar	6842 (3.50)	2136 (1.70)	25715 (13.15)	27974 (21.65)	674 (0.34)	479 (0.38)	2451 (1.25)	540 (0.43)	139097 (71.15)	65164 (51.96)
Ghaziabad	5489 (2.73)	2698 (1.75)	32686 (16.26)	27155 (10.02)	86 (0.04)	37 (0.02)	230 (0.11)	92 (0.06)	142113 (70.70)	112641 (73.02)
Hapur	5489 (2.73)	2693 (2.27)	32686 (16.26)	15454 (15.94)	86 (0.04)	57 (0.05)	230 (0.11)	238 (0.20)	142113 (70.70)	87485 (73.69)
Hathras	5699 (3.18)	3611 (2.00)	15715 (8.78)	18924 (13.89)	1011 (0.56)	1035 (0.57)	234 (0.13)	211 (0.12)	145636 (81.38)	148675 (82.53)
Kasganj	2231 (1.08)	3429 (1.75)	22812 (11.07)	25022 (10.69)	330 (0.16)	245 (0.13)	1238 (0.60)	599 (0.31)	148761 (72.21)	143455 (73.34)
Mainpuri	18287 (6.70)	15488 (5.68)	(0.00)	20914 (14.36)	1415 (0.52)	1367 (0.50)	2127 (0.78)	1631 (0.60)	185887 (68.08	194966 (71.49)
Mathura	4982 (1.51)	3650 (1.10)	34225 (10.38)	39168 (12.68)	1189 (0.36)	1322 (0.40)	926 (0.28)	937 (0.28)	269286 (81.69)	269178 (81.49)
Meerut	3489 (1.26)	2360 (0.86)	34566 (12.53)	41892 (10.62)	377 (0.14)	549 (0.20)	90 (0.03)	1425 0.52	202420 (73.35)	197823 (72.46)
Moradabad	4389 (1.17)	2296 (0.90)	37418 (9.96)	28987 (15.02)	358 (0.20)	208 (0.08)	2306 (0.61)	1615 (0.64)	319239 (84.93	212977 (83.78)
Muzaffarnagar	6163 (1.49)	3379 (1.02)	49198 (11.93)	38190 (12.71)	404 (0.10)	269 (0.08)	1948 (0.47)	1550 (0.47)	326540 (79.19)	260005 (78.52)
Pilibhit	7825 (2.19)	6835 (1.81)	36398 (10.19)	42085 (7.36)	317 (0.09)	250 (0.07)	2530 (0.71)	4307 (1.14)	222908 (62.40)	233387 (61.68)
Rampur	6906 (2.93)	4747 (2.01)	26280 (11.15)	27838 (20.91)	10 (0.00)	3 (0.00)	609 (0.26)	1168 (0.50)	191923 (81.42	191772 (81.35)
Saharanpur	990 (0.28)	299 (0.08)	42770 (11.98)	49296 (7.88)	177 (0.05)	195 (0.05)	1144 (0.32)	1299 (0.36)	273406 (76.58)	274634 (75.49
Sambhal	-	2321 (0.93)	-	28665 (16.44)	-	368 (0.15)	-	2804 (1.13)	-	203322 (81.86)
Shahjahanpur	7118 (1.56)	6840 (1.56)	39333 (8.60)	40836 (3.04)	964 (0.21)	1049 (0.24)	4097 (0.90)	3650 (0.83)	363827 (79.51)	350183 (80.05)
Shamli	3163 (1.34)	1566 (1.19)	29198 (12.33)	13306 (10.08)	404 (0.17)	225 (0.17)	948 (0.40)	316 (0.24)	177967 (75.17)	105029 (79.56)
Total	171988 (2.13)	112952 (1.55)	802777 (9.95)	833895 (11.42)	14827 (0.18)	13579 (0.19)	50946 (0.63)	45821 (0.63)	5988926 (74.22)	5597634 (76.67)

Source- Economics & Statistics Division, State Planning Institute, U.P., Lucknow, 2001&2011

Note- - indicate data are not available Figures in parentheses indicate percentage of total reporting area

RESULTS AND DISCUSSION OF LAND USE PATTERN

Forest

This includes all land classified either as forest under any legal enactment, or administered as forest, whether State-owned or private, and whether wooded or maintained as potential forest land. The area of crops raised in the forest and grazing lands or areas open for grazing within the forests remain included under the "forest area". The study area recorded about 4.17% forest area in 2001 but it increased to 4.55% in 2011. The districts of Moradabad (0.02), followed by Aligarh (0.69%), Etah (0.42%), Hathras (0.98%), Mainpuri (0.65%), Mathura (0.48%), Sambhal (0.25%), etc. have very less forest area due to expansion of urban areas and adjacent part of the capital city of India in 2011. Highest forest area found in Pilibhit (21.15%) fallowed by Amroha (9.63%), Bijnor (11.82%), Meerut (7.81%) and Saharanpur (9.13%) districts in 2011. Forests are more dominated in the north-western hilly area because of more undulating topography.

land

This includes land available for cultivation, whether taken up or not taken up for cultivation once, but not cultivated during the last five years or more in succession including the current year for some reason or the other . Such land may be either fallow or covered with shrubs and jungles which are not put to any use. They may be accessible or inaccessible and may lie in isolated blocks or within cultivated holdings. The cultivable waste land was 1.65% in 2001 but it decreased to 1.14% in 2011. Kasganj (5.22%), Mainpuri (2.47%), Ghaziabad (1.91%) and Etah (5.30%) are recorded highest area of cultivatable waste land found whereas Rampur (0.09%), Hapur (0.08%), Moradabad (0.34%), Amroha (0.41%), Bareilly (0.41%) and Muzaffarnagar (0.42%) districts had very low cultivatable waste land in 20011.

Fallow land

The lands, which were used for cultivation before one year to five years. Fallow land is divided into two categories (i) current fallow and (ii) old fallow (for 1 to 5 years).

(i) Current Fellow: This represents cropped area, which are kept fallow during the current year. Current fallows are in cycling order having being left fallow for current year to restore fertility of soil. It registered for 2.19 % of total area in 2001 which was increased 2.49 % of total area in 2011. Mainpuri (5.07%), Agra (4.70%), Hapur (7.46%), Gautam Buddha Nagar (14.88%) and Etah (4.18%) are highest current fellow land whereas Bijnor (0.66%), Bullandshahr (1.04%), Hathras (1.06%), Saharanpur (0.72%), Meerut (1.10) and Shamli (1.29%) districts are the lowest Current Fellow land was recorded in 2011. The variation in current fellow reflects rainfall, irrigation facilities and crop rotation.

(ii) Old Fellow: This includes all land which was taken up for cultivation but is temporarily out of cultivation for a period of not less than one year and not more than five years. Their extent, therefore, varies according to rainfall conditions in different years. It registered 1.99% of the total reported area in 2001 but it was decreased 1.37% of total area in 2011. Gautam Buddha Nagar (5.19%), Kasganj (2.34%), Mainpuri (5.87%), Etah (3.74%) and Ferozabad (2.75%) are highest old fellow land whereas Rampur (0.20%), Bullandshahr (0.28%), Saharanpur (0.42%), Shamli (0.51%) and Pilibhit (0.46%) districts are the lowest old fellow land was recorded in 2011. These are cultivated lands which have been left fallow because of rainfall deficiency or economic reasons and in recent trend the builders are buying the land but not constructed long time.

Barren and Un-Culturable Land

This includes all land covered by mountains, deserts, etc. Land which cannot be brought under cultivation except at an exorbitant cost is classified as unculturable whether such land is in isolated blocks or within cultivated holdings. It registered 2.13% of the total reported area in 2001 but it decreased

in 1.55% of total area in 2011. Mainpuri (5.68%), Ferozaba (3.24%), Rampur (2.01%), Hapur (2.27%) ,Hathras (2.00%) and Badaun (2.16%) are highest barren land whereas Amroha (0.53%) Saharanpur (0.08%) Agra (0.99%) Bijnor (0.84%) Meerut (0.86%) and Moradabad (0.90%) are lowest barren land was recorded in 2011.

Non-agricultural Uses

This includes all land occupied by buildings, roads and railways or under water, e.g. rivers and canals, and other land put to uses other than agriculture. It registered 9.95% of the total reported area in 2001 but it increased 11.42% in 2011. Non-agricultural land was very high in Bagpat (38.86%), Buddha Nagar (21.65%), Amroha (16.60%), Hapur (15.94%), Rampur (20.91%) and Sambhal (16.44%) whereas very low in Shahjahanpur (3.04%), Aligarh (4.70%), Badaun (3.96%), Pilibhit (7.36%) and Bullandshahr (5.91%) in 2011.

Permanent Pasture and other Grazing Land

This includes all grazing land whether it is permanent pasture and meadows or not. Village common grazing land is included under this heading. It covered only 0.18% of total reporting area in 2001 but it slightly increased to 0.19% area in 2011. Pasture land was highest in Hathras (0.57%), Gautam Buddha Nagar (0.38%), Mathura (0.40%), Aligarh (0.47%) and Mainpuri (0.50%), whereas lowest in Hapur (0.05%), Ghaziabadn(0.02%) ,Saharanpur (0.05%), Rampur (0.00%) and Bagpat (0.06%) in 2011. In Western Uttar Pradesh, amount of pasture land is very poor because of pasture areas are utilization for construction of link road of the villages and urban areas, construction of new settlements in urban areas.

Land under Miscellaneous Tree Crops, etc

This includes all cultivable land which is not included in 'Net area sown' but is put to some agricultural uses. Land under casuring trees, thatching grasses, bamboo bushes and other groves for fuel, etc. which are not included under 'Orchards' are classified under this category. It covered 0.63% of total reported area in 2001 whereas was increased to 0.83% areas in 2011. Land under this category was highest fond in Agra (2.13%) Shahjahanpur (0.63%), Badaun (1.66%), Bareilly (0.68%), Pilibhit (1.14%) and Sambhal (1.13%) where lowest in Ghaziabad (0.06%) Hathras (0.12%) Aligarh (0.09%) Bagpat (0.05%) and Amroha (0.10%) in 2011. This land area are very low as compare to the other region of Uttar Pradesh, due to urban growth in the capital city and cause expansion of construction in adjoin part of the districts.

Net Sown Area

This represents the total area sown with crops and orchards. Area sowed more than once in the same year is counted only once. In Western Uttar Pradesh, this type of land are high as compare to total due upper ganga plain which is suitable for this land. It covered 74.22% of the total reported area in 2001 whereas was increased to 76.67% in 2011. This was high variation at district level, such as highest in Moradabad (83.78%), Hathras (82.53%), Badaun (82.23%), Aligarh (81.87%) and Sambhal (81.86%) whereas lowest in Pilibhit (61.68%), Gautam Buddha Nagar (51.96%), Agra (70.88%), Bijnor (72.41%) and Mainpuri (71.49%) in 2011.

Changes in land Use

Land use land cover changes in Western Uttar Pradesh during 2001 and 2011 revealed that the speed of expansion was quite worrying because in this region of Uttar Pradesh ecological Favourable land was less. There was high speed of urban expansion in many part of the study area. The ecological conditions, technological advancement and institutional development affect the land use pattern in great degree regarding space, magnitude and speed. The change in land use pattern during past 10 years (from 2001 to 2011), that forest land is increased (0.38%) due to decrease of waste land. In this regard fallow land is decreased (0.32%) whereas Non-Agricultural land is increased (1.47%) due to speed up of urban expansion. Other land use like Barren land is decreased (0.58), Net Sown Area is increased (2.45%), and Permanent Pasture is decreased (0.01%) are changes in 2011. The expansion of residential area resulted by the population pressure on the land. Land under Mics. Tree, groves and garden are not changes due to awareness to social forestry, especially in rural urban fringe areas.

Conclusion

The overall picture regarding land use patterns in India constitutes divergent situations in regard to land use patterns across different states. In this part of Uttar Pradesh have already not very much suitable for agriculture. However, one pattern that was consistent almost all the districts is the increasing trend in land under non-agricultural use due to increasing urbanization and industrialization, this trend is inevitable. The land use system is highly dynamics which undergoes significant changes according to the changes socio-economic and natural environment. Transformation lands from different land use to agriculture to fulfill the demand of food, fuel, wood, fodder and timber and on the other hand increasing the non-agricultural land use means to development of urbanization and industrialization. The main causes for expansion of urban area in this area because of settlement and development of rural-urban fringe areas in the border districts of capital delhi area e.g. Ghaziabad, Gautam Buddha Nagar etc. Increasing population and dependent of agriculture are highly influence on agricultural and non-agricultural land use pattern. For development of urban areas and concentration on environment this regards Mics. Tree groves and garden are unchanged for social forestry and awareness. Also Western Uttar Pradesh is not very much uniform topography, in northern part is hilly mountain area, central and eastern part are upper ganga plain suitable for agriculture and in Sothern part are the desert area. Pasture and other grazing land are decreasing which influence for animal husbandry. Culturable waste land and barren land are decreasing due to increasing other than agricultural land. Current fallow land was increasing due to less concentration chemical fertilizer and irrigation.

Land Management

It can be concluded that the processes and associated problems observed have regional, national, and international implications through the management of land use. Now the question arise how to management of land what type of strategy should be adopted for economic development and growth evolved in the light of present analysis of land use so economic growth process may make least harm to environment. Some important measure of land use management are:

1. Extension of urbanization should be checked.
2. Bio-manure should be encouraged instead of chemical fertilizer.
3. The site of industrial estate should be assigned to those areas which are barren and unculturable.
4. Also the governmental policy and programme and self-awareness are very much important for land use management.

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