GENERAL LAND USE PATTERN IN LATUR DISTRICT

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Landuse means the surface utilization of all developed and vacant land on a specific point at a given time and space. This leads one back to the village farm and farmers, to the fields, gardens, pastures, fallow land, forests and to the isolated farmstead's as a geography deals with the spatial relationship between these aspects and plannings (T.V. Freeman 1968). It is due to the landuse changes to meet the variable demands of the land by the society in its new ways and conditions of life. The demand for new uses of land may be stimulated by a technological change or by a change in size, compositions and requirements of a concerning community. Some changes are short lived while others represent a more constant demand (J.N. Jakson 1963). The study of landuse is of pivotal importance in the point of view of planning and development of an area.

Study Area—In the present work an attempt has been made to study the 'General Landuse Patter in Latur distric', 1985-2000. Latur district has been selected as the study area'. The location of the Latur district is considered it lies between $17^0$52' and $18^0$50' North latidues, $76^0$12' and $77^0$18' East longitudes. It is surrounded by Beed and Parbhani in the north east, Karnataka state in the north east and Osmanabad district in the North West. The total area covered by Latur district is 7372 sq.km. According to the census 2001, the total population. It accounts for 2.39 percent of the area of the state and 2.15 percent population of the state.

Objectives—The Present study has certain specific research objectives —

(1) To examine the general landuse pattern under five categories of landuse.

(a) Area under forest (b) Area not available for cultivation (c) Other Uncultivable land (d) Fallow land (e) Net Sown Area

Database —The entire data used for the present study have been obtained from secondary sources. Data from secondary sources have been collected principally from various bulletins :

(1) Bulletins of Agricultural Statistics of Maharashtra (year wise from 1985-86 to 2000-2001)
(2) Statistical abstract of Latur district (year wise from 1985-86 to 2003-2004)
(3) District Census Handbook of Latur (1981, 1991, 2001).

Since the study is from 1985, district level published data was available from 1985 onwards to 2000. All the analysis has been done for the ten tahsils of the district.

Tahsil-wise Trends in General Land use Pattern in Latur District—Due to the location and physical setting the general land use pattern of the region under study differs from tahsil to tahsil. The existing pattern of land use is shown in Map 1.1.Physical attributes and socio-economic structure put a stamp upon land use pattern in Latur district. The land use and crop distribution pattern is influenced by physiographic, Soil types, rain fall, geology and expansion of irrigation. All these factors also play an important role in determining the agricultural practices in Latur district. Table 1.1 shows the tahsil wise trends in general land use in Latur district.

Area under forest—About 300 hectares (0.04 percent) of the geographical area of the Latur district was under forest during 1985-86. It increased from 300 hectares to 2300 hectares during the period from 1985-86 to 2000-01. This shows that there was increase in forest area from 0.4 to 0.28 percent during the period under investigation. Table 1.1 also reveals that there is variation in forest area from tahsil to tahsil. The area under forest was noticed same in Latur, Udgir and Nilanga tahsil which is one hundred hectar. It was observed that there was no forest area in Ahmedpur and Ausa tahsil.

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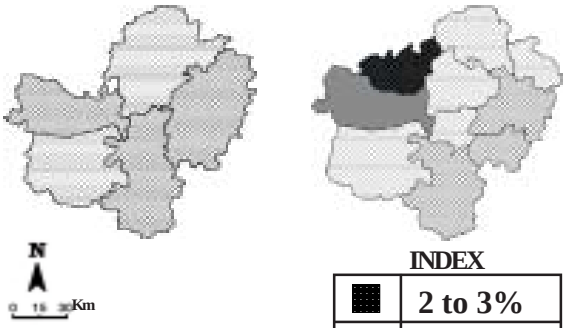
Table No. 1.1
Tahsil-wise General Landuse Pattern in Latur District
(Area in Hectares and Percentage)

Sr No	Name of Tahsil	Year	Area Under Forest	Area not Available for cultivation	Other uncultivable Land	Fallow Land	Net Sown Area	Total Geographical Area	
1	Latur	1985-86	100	5700	5600	2900	85600	99900	
		%	0.1	5.61	5.61	2.19	85.69	100.00	
		2000-01	100	5700	5800	7100	75600	94300	
		%	1.10	06.05	6.16	7.53	80.17	100.00	
		Volume of Change in %		+01	+0.45	+0.55	+4.62	-5.52	-
2	Ahmedpur	1985-86	-	6900	10600	21400	120000	159000	
		%	-	4.34	6.67	13.46	75.48	100.00	
		2000-2001	-	5800	2200	2500	69200	79700	
		%	-	7.28	2.77	3.14	86.83	100.00	
		Volume of Change in %		-	+2.94	-3.9	-10.32	+11.35	-
3	Udgir	1985-86	100	5500	5500	11000	129100	151300	
		%	0.06	3.63	3.63	7.28	85.33	100.00	
		2000-01	100	1300	2300	9500	59300	77200	
		%	0.12	1.69	2.98	12.31	76.82	100.00	
		Volume of Change in %		+0.06	-1.94	-0.65	+5.03	-8.51	-
4	Nilanga	1985-86	100	5700	8500	97000	112900	136900	
		%	0.07	4.17	6.21	7.09	82.47	100.00	
		2000-01	300	1700	4300	1800	99600	107700	
		%	0.27	1.58	4.00	1.68	92.48	100.00	
		Volume of Change in %		+0.2	-2.59	-2.21	-5.43	+10.01	-
5	Ausa	1985-86	-	4800	5000	5900	104700	120400	
		%	-	3.99	4.16	4.91	86.97	100.00	
		2000-01	-	4900	4600	5600	105300	120400	
		%	-	4.07	3.83	4.66	87.45	100.00	
		Volume of Change in %		-	+ 0.08	-0.33	-0.25	+0.48	-
6	Renapur	1985-86	-	-	-	-	-	-	
		%	-	-	-	-	-	-	
		2000-01	1600	600	1100	2200	60100	65600	
		%	2.43	0.92	1.68	3.36	91.62	100.00	
		Volume of Change in %		-	-	-	-	-	-
7	Chakur	1985-86	-	-	-	-	-	-	
		%	-	-	-	-	-	-	
		2000-01	-	4100	1000	3600	59600	68300	
		%	-	6.00	1.47	5.28	87.27	100.00	
		Volume of Change in %		-	-	-	-	-	-
8	Deoni	1985-86	-	-	-	-	-	-	
		%	-	-	-	-	-	-	
		2000-01	200	1200	900	2800	35000	40100	
		%	0.49	3.00	2.25	6.99	87.29	100.00	
		Volume of Change in %		-	-	-	-	-	-
9	Jalkot	1985-86	-	-	-	-	-	-	
		%	-	-	-	-	-	-	
		2000-01	-	1000	1300	3700	23000	29100	
		%	-	3.44	4.47	12.72	79.04	100.00	
		Volume of Change in %		-	-	-	-	-	-
10	Sirur Anantpal	1985-86	-	-	-	-	-	-	
		%	-	-	-	-	-	-	
		2000-01	-	2200	2000	1700	27400	33300	
		%	-	6.61	6.00	5.11	82.29	100.00	
		Volume of Change in %		-	-	-	-	-	-
11	Total District		1985-86	300	28500	35300	50900	552300	667400
		%	0.04	4.29	5.29	7.63	82.76	100.00	
		2000-01	2300	31800	25500	40500	614100	7157.06	
		%	0.32	4.45	3.57	5.66	85.81	100.00	
		Volume of Change in %		+0.28	+0.16	-1.72	-1.97	+3.05	-

Sources: Computed by the Author

AREA UNDER FOREST

1985-1986 **2000-2001**

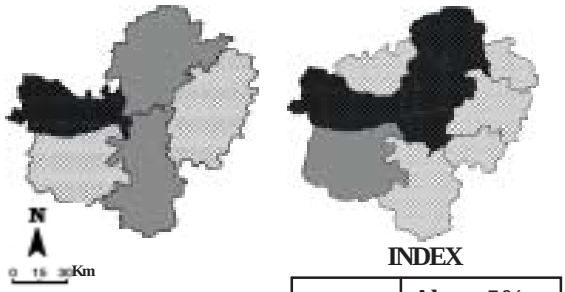


INDEX	
	2 to 3%
	1 to 2%
	0 to 1%
	No Forest

Figure No. 1.1

AREA NOT AVAILABLE FOR CULTIVATION

1985-1986 **2000-2001**

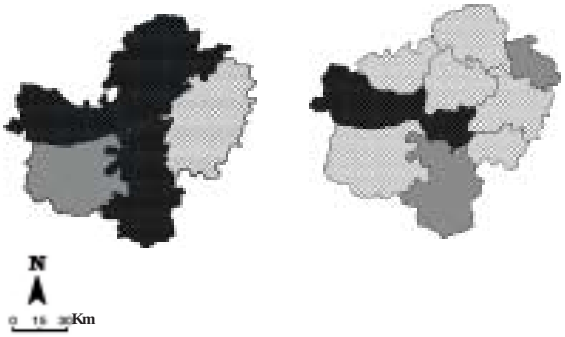


INDEX	
	Above 5%
	4 to 5%
	Below 4%

Figure No. 1.2

OTHER UNCULTIVATABLE LAND

1985-1986 **2000-2001**

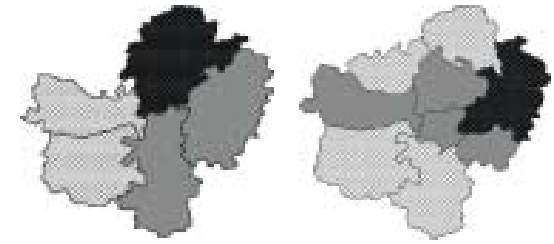


INDEX	
	Above 5%
	4 to 5%
	Below 4%

Figure No. 1.3

FALLOW LAND

1985-1986 **2000-2001**

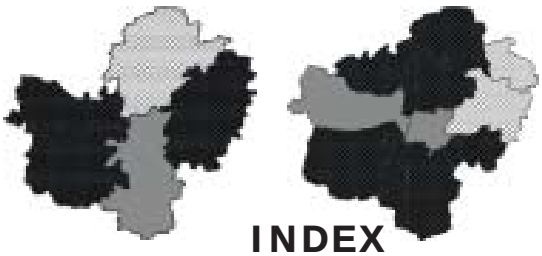


INDEX	
	Above 10%
	5 to 10%
	Below 5%

Figure No. 1.4

NET SOWN AREA

1985-1986 **2000-2001**



INDEX	
	Above
	80 to
	Below

Figure No. 1.5

Out of total geographical area below 01 percent area was found under forest in Udgir, Nilanga and Deoni tahsils whereas 01% to 02% geographical area was observed under forest in Latur and Renapur tahsils during 2000-01. The area under forest is not availablee in Ahmedpur, Ausa, Chakur, Jalkot and Sirur Anantpal. The positive change was found in Nilanga and Renapur tahsils where as 0.2% to 2.43% change was found. The same change was found in Latur and Udgir tahsils

Area Not Available For Cultivation—This group includes a) the land put to nonagricultural uses and b) barren and uncultivable land. Area under land put to non-agricultural use includes land occupied by buildings, road, railway or under water and other such uses. The category that includes barren and uncultivable lands are generally rocks, hilly, stony, deserts, bad lands and inaccessible in nature. About 28600 hectares of land was not available for cultivation increased from 28600 hectares to 31800 hectares (0.16%) between 1985-86 to 2000-2001 in entire study region. Map 1.2 indicates the regional distribution of area under this category and changes therein. The highest percentage (5.61%) under this category was recorded in Latur tahsil whereas the lowest percentage (3.63%) under area not available for cultivation was recorded in Udgir tahsil during 1985-86. Below 5% area not available for cultivation was noticed in Ausa, Deoni, Jalkot, Udgir, Nilanga and Renapur tahsils while 5% to 8% geographical area was found under this category in Ahmedpur, Latur, Chakur and Sirur Anantpal tahsils during 2000-2001. Map 1.2 indicates below 1.94 and 2.59 percent negative change in area not available for cultivation in Udgir and Nilanga tahsil from 1985-86 to 2000-2001. Table 1.1 indicates that below 1% positive change in area not available for cultivation was found in Latur and Ausa tahsils whereas 2.94% positive change was recorded in Ahmedpur tahsil during the period under investigation.

Other Uncultivable Land Excluding fallow land —Other uncultivable land excluding fallow land consists three types of land viz.

(a) Culturable waste, (b) Permanent pasture and grazing land, (c) Land under miscellaneous trees etc. Culturable waste land includes the land which can be brought under cultivation but which has not been cultivated for sometime and not been cultivated successively for more than five years. The category of miscellaneous trees, crops includes land under grass, bamboo, other trees used for fuel and casuarinas tress. Permanent pasture and grazing land include all such lands which are under grass cover owned by Government or privately. During 1985-86 about 35300 hectares land was other uncultivable land. This land decreased from 35300 hectares to 25500 hectares in study region from 1985-86 to 2000-01. It means that about 1.72% negative change was observed in this group between 1985-86 to 2000-01.

The spatial distribution of other uncultivated land and changes was shown in Map 1.3 Out of the total geographical area 5.29 percent area under this group in 1985-86 and 3.57 percent in 2000-01. This map shows that area under this category varies from tahsil to tahsil. Below 5% geographical area under other uncultivated land was found in Ausa and Udgir tahsil and Latur, Ahmedpur, Nilanga tahsils whereas 5.61%, 6.67%, 6.21% area was observed under this category in 1985-86. In 2000-2001 Latur (6.16), Ahempur (2.77), Udgir (2.98), Nilanga (4.00), Ausa (3.83), Renapur (1.68), Chakur (1.47), Deoni (2.25), Jalkot (4.47) and Sirur Anantpal (6.00) area under this category was found. The volume of changes in Latur (+0.55), Ahmedpur (-3.9), Udgir (-0.65), Nilanga (-2.21) and Ausa (-0.33) from 1985-86 to 2000-01.

Fallow land—The meaning of term "Fallow land" is that the land which is not under cultivation at the time of reporting but which has been sown in the past. Census of India has divided the fallow land into two types viz.

(i) Current fallow land, (ii) Permanent fallow land or other than current fallow.

Current fallow indicates the land left fallow during the current year only and permanent fallow (Other than current fallow). means land left fallow temporarily out of cultivation for 1 to 5 years. However, for the present study these two categories are grouped together. The study area has significant land under fallow land viz. 5.66% (40500 hectares) of the total geographical area during 2000-01. The fallow land decreased from 50900 hectares to 40500 hectares or 7.63 percent to 5.66 percent between 1985-86-2000-01. Regional disparities in the spatial distributional pattern of fallow lands in Latur District is exhibited in Map 1.4 The highest percentage of fallow land (12.72%) was noticed in Jalkot tahsil whereas the lowest percentage of fallow land (1.68%) was recorded in Nilanga tahsil during 2000-2001. Latur (7.53%), Ahmedpur (3.14%), Ausa (4.66%), Renapur (3.36%), Chakur (5.28%), Deoni (6.99%), Udgir (12.31%) and Sirur Anantpal (5.11%) observed in this category during 2000-01. Both positive and negative change in fallow was occurred in the study region between 1985-86 to 2000-01. Latur (4.62%) and Udgir (5.03%) was recorded in positive change and Ahmedpur (-10.32), Nilanga (-5.43%) and Ausa (-0.25) tahsils recorded negative changes during the period of investigation. Negative changes was observed in three tahsils because fallow land has transferred to net sown area. Positive changes was recorded

in Latur and Udgir tahsils because some gross cultivated land has transferred in water supply, Railway line, settlement and industrial development during the period under study.

Net sown area—This category and fallow lands together constitute the extent of cropped land in any region and therefore is of vital significance in studies relating to agricultural geography. The land which is actually cropped during the current agricultural year is called "Net Sown Area" In computing the net area sown, areas grown more than once have been counted only once. Table 1.1 indicates that the net sown area occupies the share viz. 85.81% of the regions geographical area during 2000-2001. Net sown areas increased from 552300 hectares to 614100 hectares between 1985-86 to 2000-01. It means that about 3.05 percent net sown area was increased in the entire study region during the period of investigation. Below 85 percent geographical area was under cultivation in Latur (80.17), Udgir (76.82%), Jalkot (79.04%) and Sirur Anantpal (82.29%) while 85% to 92% area was net sown area in Ahmedpur (86.83%), Nilanga (92.48%), Ausa (87.45%), Renapur (91.62%) Chakur (82.27%) and Deoni (87.29%) during 2000-2001. (Map 1.5) Below 5.52 and 8.51 percent negative change in net sown area was found in Latur and Udgir tahsil and Ahmedpur 11.35, Nilanga 10.01, Ausa 0.48 percent positive change in net sown area was found in the study region during the period of 1985-86 to 2000-2001. In the entire study region 3.05 percent positive change in net sown area was observed.

Tahsil-wise per capita Net sown area in Latur district—Taking into consideration all the land use categories it will be useful at this stage to measure the per capita net sown area in Latur district. Table 1.2 gives an idea about tahsil-wise per capita net sown area in study region during the three decades.

Table No. 1.2
Tahsil-wise per capita Net sown Area in Latur District
(Net sown area in hectare)

Sr.No.	Name of Tahsil	Year		
		1981	1991	2001
1	Latur	4.08	3.81	7.17
2	Ahemedpur	2.05	2.19	2.87
3	Udgir	2.13	2.88	4.40
4	Nilanga	2.14	2.71	2.87
5	Ausa	1.74	2.03	2.64
6	Renapur	-	-	2.03
7	Chakur	-	-	2.63
8	Deoni	-	-	2.52
9	Jalkot	-	-	3.00
10	Sirur Anantpal	-	-	2.70
11	Latur District	2.35	3.30	3.38

Source: Computed by the Author

Table No. 1.2 shows that the tahsil-wise per capita net sown area was 2.35 hectare in 1981 in the study region. It increased from 2.35 hectare to 3.30 in 1991, 3.38 in 2001. Per capita net sown area varies from tahsil to tahsil. The highest per capita net sown area was observed in Latur tahsil (4.08 hectares) whereas the lowest per capita net sown area was found in Ausa tahsil (1.74 hectare) in 1981. During 2001 per capita net sown area was increased in every tahsil. In 2001 the highest per capita net sown area was found in Latur tahsil (7.17 hectare) and the lowest per capita net sown area was found in Renapur tahsil (2.03 hectare). Table 1.2 indicates that per capita net sown area increased to certain extent in every tahsil in Latur district. The per capita net sown area increased during the span of three decades to a greater extent. Adoption of improved farm technology and other measures were important to increase productivity of available land.

Land use Efficiency—Land use efficiency is defined as the extent to which the net area sown has been cropped or reason. The total cropped area or gross area sown as percentage of net area sown gives a measure of landuse efficiency which really Means the intensity of cropping. Intensity of cropping refers to the multiple use of agricultural land, that is number of crops grown on the same area in any one year. When only one crop is grown annually, the cropping intensity is 100 percent and if two crops are taken in a year the intensity is 200 percent. Thus, the higher the intensity of cropping, higher is the land use efficiency, and lower the intensity of cropping the lower is the land use efficiency.

$$\text{Index of Landuse efficiency} = \frac{\text{Gross Cropped Area}}{\text{Net Sown Area}} \times 100$$

Table No. 1.3 shows that land use efficiency was decreased by 13.21 percent in Latur district during the period of 1985-2000. During 1985-86 to 2000-2001 change of land efficiency was noticed in Latur (-44.38), Ahmedpur (-4.52), Udgir (-4.13), Nilanga (-3.37), Ausa (-11.52). During the investigation period 1985-86 the landuse efficiency was Latur (171.50), Ahmedpur (121.42), Udgir (112.40), Nilanga (114.18) and Ausa (122.16). In 2000-2001 landuse efficiency was noticed in Latur (127.12), Ahmedpur (116.90), Udgir (108.27), Nilanga (110.45), Ausa (110.64), Renapur (102.33), Chakur (108.73), Deoni (117.15), Jalkot (100.00), Sirur Anantpal (120.80) and total district was found in 1985-86 (125.75) and 2000-2001 (112.54).

Table 1.3
Statement Showing Land Use Efficiency in Latur District
(Area in Hectare)

Sr. No	Name of tahsils	1985-86			2000-2001			Volume of Change in Landuse efficiency
		Gross Cropped Area	Net Sown Area	Index of Landuse Efficiency	Gross Cropped Area	Net Sown Area	Index of Landuse Efficiency	
1	Latur	146800	85600	171.50	96100	75600	127.12	-44.38
2	Ahmedpur	145700	120000	121.42	80900	69200	116.90	-4.52
3	Udgir	145100	129100	112.40	64200	59300	108.27	-4.13
4	Nilanga	128900	112900	114.18	110000	99600	110.45	-3.37
5	Ausa	127900	104700	122.16	116500	105300	110.64	-11.52
6	Renapur	-	-	-	61500	60100	102.33	-
7	Chakur	-	-	-	64800	59600	108.73	-
8	Deoni	-	-	-	14000	35000	117.15	-
9	Jalkot	-	-	-	23000	23000	100.00	-
10	Sirur Anatpal	-	-	-	33100	27400	120.80	-
11	Total District	694500	552300	125.75	69100	614100	112.54	-13.21

Source: Computed by the Author

Table No. 1.3 indicates that landuse efficiency index has shown negative change in every tahsil. Below 11% negative change in landuse efficiency index was noticed in Ahmedpur, Udgir, Nilanga tahsils whereas 11% to 44% negative change in landuse efficiency was observed in Ausa and Latur tahsil between 1985-86 to 2000-2001. The degree of intensity of cropping and its spatio-temporal variation is influenced by the intensity of irrigation, rainfall distribution, soil fertility, physiography etc.

Summary

(1) 0.28 percent change in forest area was recorded in Latur district from 1985-86 to 2000-2001.

2) During 1985-86, the area not available for cultivation accounted 4.29 percent and during 2000-2001 it accounted 4.45 percent of the total geographical area. Table 1.1 indicates the positive and negative change in area not available for cultivation.

3) Other uncultivable land excluding fallow land in the Latur district showed a decrease from 5.29% to 3.57% from 1985-86 to 2000-2001. The spatial distribution of the uncultivated land excluding fallow land was shown in Map 1.3 This Map shows that area under this category varies from tahsil to tahsil in Latur district.

4) About 0.25 to 10.32 negative change in fallow land was recorded in all tahsils except Latur and Udgir where 4.62% and 5.03% positive change in fallow land was found from 1985-86 to 2000-2001. This negative change was occurred due to transfer of fallow land to net sown area. The regional disparities in the spatial distributional pattern of fallow lands in Latur district is exhibited in Map 1.4.

5) Table 1.1 indicates that 0.48% to 11.35% positive change in net sown area was observed in district except Latur and Udgir tahsil. Latur (-5.52%) and Udgir (-8.51%) has found negative changes. Particularly fallow land area was transferred to the net sown area between 1985-86 to 2000-2001. There is vast scope to increase the net sown area in the study region. In Latur district net sown area occupied viz. 85.81% in the geographical area of the study region. The net area sown increased from 552300 hectares to 614100 hectares during the period of investigation. The spatial distribution of the net sown area in Map 1.5 which show the volume of change in net sown area from 1985-86 to 2000-2001. Table 1.2 shows that per capita net sown area increased to greater extent in every tahsil in Latur district.

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