CHAPTER - TWO

THE CHANGING LAND UTILISATION PATTERN IN CHANDGAD TALUKA - 1950-51 to 1983-84

2.1 GENERAL INTRODUCTION

Land utilisation pattern of a country or a region refers to the distribution of the total geographical area of a region into various land use categories. For example in India before 1949-50 the total geographical area was divided into five main categories namely: (1) Forests. (2) Area not available for cultivation. (3) Other uncultivated land excluding fallows (4) Fallows and (5) Net sown area. Later on the definitions of differentland use categories were changed and a new and comprehensive classification of land utilisation was introduced. According to the new classification of land utilisation, the total geographical area had been divided into nine categories viz., (1) Forests, (2) Land put to non-agricultural uses, (3) Barren and unculturable land (4) Permanent pastures and other grazing lands. (5) Miscellaneous tree crops and grooves. (6) Cultivable waste land (7) Fallow, other than current fallows (8) Current fallows and (9) Net area sown. The same classification has been applied by the reporting agencies at the taluka level and as such we have accepted the later classification only with the two additions namely, (10) Area sown more than once and (11) Gross cropped area.

In a developing country the land utilisation pattern is expected not to remain unchanged over a period because development programme gives rise to competing demands for cultivation of crop production and growth of demand for forest, and pastures. However, changes in the pattern of land utilisation are brought through conscious planning or through mere halphazard manner. Whatever, the manner in which changes in the land utilisation are brought about, one should keep in mind that the area under cultivation has to be increased with a view to meeting the demand for foodgrains and agricultural raw materials arising out of rapid industrialisation. In our limited study we make an attempt to analyse the changes in the different land use categories over the period in the taluka under reference.

2.2 THE TOTAL GEOGRAPHICAL AREA

The total geographical area of the taluka was 95,951 hectares in 1950-51. Immediately in the next year (1951-52) it changed to 96,356 hectares which remained constant upto 1955-56. Upto 1955-56 Chandgad taluka was a part of the Belgaum district which is now in Karnataka State. In the year 1956 with the reorganisation of the States, Chandgad taluka was merged with the then bilingual Bombay State and now it is one of the talukaçof the Maharashtra State, which came into being since First May, 1963. Thereafter (1966)

the geographical area of the taluka slightly increased to 96,477 hectares and continued to increase upto 1959-60 (96,559 hectares). The index of the geographical area increased to 100.62 there-after the area declined and remained constant at 96,542 hectares (1982-83). The major changes in the geographical area cannot take place unless there are some border adjustments as between the adjascent talukas of the district. Recently only two villages from the taluka have been merged with the Sinddurg taluka as a result of which there has been a slight decline upto 95,221 hectares.

2.3 AREA UNDER FOREST

The category of forest includes all forested areas whether state or private owned. If any portion of such forest land used for agricultural purposes that portion is excluded from the category of the forests and included under appropriate category. As such in a developing economy some sort of changes are liekly to occur, hence in the following parras an attempt is made to study the changes thereof. In the beginning the area under forests measured 27,368 hectares forming 28.52 percent to the total geographical area of the taluka. From the next year it measured to 27,935 hectares pushing the percentage to 28.09 percent which remained unchanged upto 1954-55. There after the index and the percentage to the geographical area remained almost unchanged upto 1971-72. But with 1972-73 the area under forests

Table No.2.2

Progress of Social afforastation in Chandgad Taluka during 1984-85 to 1986-87

					-, -, -, -, -,
Model No.	Sr. Name of No. Village	Name of Scheme	Year of Planting	SPPS Planted	Planted Area in Hectares
Model No.l i.e.Planting in gairan of revenue	l Nandawade	M.S.F.P.	1984-85	Nilgiri, A.Babul	10.00
	2.Nagardale	M.S.F.P.	1984-85	_"_	10.00
	3.Nandawade	N.R.F.P.	1984-85		12.29
Only Lakuda-	4.Nagardale	N.R.F.P.	1984-85	tt	10.00
wadi is	5.Dukkarwadi	M.S.F.P.	1985-86	_ ¹¹ _	12.00
Other villag.	• 6.Lakudwadi	M.S.F.P.	1985-86	_11_	8,00
es are	7.Nagardale	N.R.F.P.	1985-86	A.Babul	9.00
Nagardale	8.Jelugade	M.S.F.P.	1986-87	A.Babul	15.00
Western Ghat	9.Gudwade	M.S.F.P.	1986-87	tt	10.00
land of private people.	10.Kajirne	M.S.F.P.	1986-87	Nilgiri,	5.00
	ll.Nagardale	Western Ghat	1986-87	A.Babul	8,00
Model No.10	l.Nandawade	M.S.F.P.	1984-85		8.00
i.e.	2.Nagardale	2. Nagardale $M_{\rm s}$ F.P. 1984-85		Per	5,00
distribution of seedling	3. Nandawade	_		hectare	
to private people freely.	4.Nagardale	-	-	free seedling	
	5.Dukkarwadi	M.S.F.P.	1985-86	are	10.00
	6.Lakudwadi	M.S.F.P.	1985-86	only.	12.00
	7.Nagardale	N.R.F.P.	1985-86	1 -	9.00
	8.Jelugade	M.S.F.P.	1986-87		10.00
	9.Gudwale	M.S.F.P.	1986-87		5,00
	10.Kajirne	M.S.F.P.	1986-87		15.00
	11.				
		• - • - • - • - •			
Note : M.S.F.P. = Maharashtra Social Forestry Project N.R.E.P. = National Rural Employment Programme.					
Source : Office of the Social Forestry Department, Chandgad					

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Taluka, Chandgad.

declined as a result of which its percentage share declined to 26.15 percent to geographical area and the index 90.96 (1983-84) during the 1970's. The process of deforestation seems to have been on the increase. This can be supported by the annual compound growth rate of the area under forests which worked out to be negative that is (-)0.31 percent for the whole period. This trend of deforestation in the taluka is no doubt harmful from the view point of overall ecological balance of the taluka. In order to check the deforestation process which is already being set in motion. Some measures will have to be adopted, and if adopted they have to be implemented very rigorously. The schemes like social forestry will have to be put through voluntary organisations and the decentralised government like Zilla Parishads, agencies and Taluka Panchayat Samittees in addition to Vanmahotsove, for the implementation of the aforestation programmes. As for the implemented programmes in the taluka refer to Table No.2.2. So it is good that the area under social forestry increasing though marginally in the taluka during the last few years. This should continue in future and it would be much beneficial to extend the area under forests having communal ownership of which the small and the marginal and even land less agricultural labourers are expected to benefit in terms of increasing their real income indirectly.

2.4 AREA NOT AVAILABLE FOR CULTIVATION

This category of land use consists of two subcategories (1) Land put to non-agricultural uses and (2) Barren and uncultivable land. (Land put to nonagricultural uses' consists of all lands occupied by buildings, roads and railways and underwater. The other category Barren and uncultivable land refers to the area under mountains, deserts etc. which cannot be brought under cultivation except at high costs; whether such land is in isolated blocks or within cultivable holdings. These two categories taken together are not expected to make any contribution to the net sown area. In point of fact the increasing land put to non-agricultural uses is expected to produce a negative effect on it. And this is what exactly has been happening in the net sown area in Chandgad taluka since the beginning of the planned economic development of the two categories. The first category reveals the increase over the period. The land put to non-agricultural uses increased from 324 hectares to 3,480 hectares. As a result of which the index number increased to 1074.07 and its percentage in the total geographical area increased from just 0.34 to 3.65 percent. Though land put to non-agricultural consists sub consists sub uses / of all/land use categories, some of the lands already under cultivation have been put to nonagricultural uses by way of converting them due to

non-agricultural land. The second sub-category of which its area, its relative percentage share in the total geographical area and index number over the later part of the whole period remained more or less unchanged that is, at 2.60 percent and 775.31 respectively. Taken these together we can have the category of area not available for cultivation which is rather an important category among the various categories of land utilisation. In the beginning of the period. it measured only 182 hectares which formed 1.94 percent in the total area of the taluka. It went on increasing upto 5.07 percent (1983-84) of its area index more than doubled and reached to 259.08 in the same year. The contribution to the growth of area not available for cultivation has been from the first categories that is land put to non-agricultural uses and the second category remaining more or less constant. The annual compound growth rate of the area not available for cultivation worked out to be quite significant that is at 7.55 percent. This has been mainly because of the expansion of the village residential areas known as gaothans and the construction of a net work of roads with a view to facilitating the transport of the sugar-cane to the sugar cooperative factories located at Halkarni, Chandgad. The loss of the area from the agricultural lands can be compensated only by converting the waste lands, that is barren and unculturable lands. This, in turn will require huge

amount of investment, which is possible only for the Government. However, we may make a suggestion here that in future the liberal grants of non-agricultural lands (NA) should be held in check; so as to avoid a further decrease in the net sown area of the taluka.

2.5 CULTURABLE WASTE LAND

The culturable waste land measured 6,721 hectares and formed 7.00 percent in the total geographical In the intervening years of the period,/fluctuated area. between 16.31 (1971-72) and 4.79 percent (1956-57). The area under culturable waste increased during the period because of improvement in reporting the area under different land use categories. Similarly the area under permanent pastures remained more or less constant over a considerable period of time. However, area under it has revealed a declining trend over the later part of the period. The area by the end of the period decreased by about half the area that was under permanent pastures in the beginning. The index number of the area decreased to 55.81 (1983-84). It is strange enough that there is another important land use category namely land under miscellaneous crops not including in/area sown. There has not been any area under this land use category. This might be due to conceptual ambiguity in the minds of the reporting persons. But this area might have been included under the category of other uncultivated land

excluding follow lands. This category consists of some portion of cultivable waste lands plus permanent pastures plus land under miscellaneous crops etc. This land use category should have a tendency towards an increase, because the index of the area increased to 136.05 and its percentage share increased to 13.64 (1983-84) from 9.95 percent (1950-51) in the beginning.

2.6 FALLOW LANDS

Fallow lands are divided into two parts (1) Fallow land other than current fallow. This refers to the lands which were taken up for cultivation but now temporarily out of cultivation for a period of not less than one year and not more than five years. The reasons for keeping lands fallow may be either poverty of cultivators or inadequate supply of water or material, climate or silting of canhals and rivers or unremunerative nature of farming, (2) Current Fallows. Current fallows are defined as lands which are left fallow during the current year only. Most of the increase in crop area could be brought about by a reduction of fallows and is attributable to such factors as timely rainfall in both kharif and rabi seasons and remunerative level of prices. As mentioned somewhere earlier the reduction of fallows and extension of double cropped area are the most promising ways of increasing the gross cropped area, so we make an attempt to present an analysis of the variations in the areas under these two sub land use classes in the

following paras:

During the first six years (1950-57) the figures for the current fallows are available. The area under current fallows seems to have decreased considerably from 11,781 hectares (1950-51) to 1457 hectares (1956-57) as a result of which the percentage share declined from 12.28 percent to 1.51 percent and the index abruptly came down to 12.38. As against this the area under long fallows increased from 13,765 hectares to 22,186 hectares (Both percentage share and index number increased to 23.02 and 161.18 during the corresponding period). The area under these two categories, however, though marginally declined from 25,546 hectares to 23,643 hectares and the index number fell to 92.55.

Between 1957-58 and 1966-67 the figures as to the area under current fallow have not been reported; whereas the area under long fallows have been reported. The area under this category has increased as a result of which the index number increased to 132.57 assuming the same base year. Naturally the total area under fallows declined as a result of which the index fell to 71.43. In the subsequent period 1967-68 to 1983-84 the figures for each category have been reported. From the relevant figures we can observe that the area under both the categories has declined considerably to 5086 and 1238 hectares. They have lost the area and their respective shares decreased to 1.30 and 6.64 percent and their indices to 43.17 and 8.99 respectively (1983-84). The decline in the fallow lands have contributed to the growth of net sown area in the taluka during the period under review.

2.7 NET SOWN AREA AND AREA SOWN MORE THAN ONCE, AND GROSS CROPPED AREA

These first two categories are important from the view point of the growth of agricultural output. The agricultural output could be increased by increasing the net sown area plus area sown more than once that is ultimately on the increase in the gross cropped area. The net sown area in the taluka measured 31,579 hectares which formed 32.91 percent of the total geographical area (1950-51). The relative percentage share of it during the whole period increased to 48.50 percent (in absolute terms 46.189 hectares). The index number as a result shot upto 146.27 (1983-84). For this category of land use we have worked out the rate of increase which comes to 1.06 percent compound per annum. This positive annual growth rate of the net sown area suggests that the extension of cultivation has taken place and this has been mainly because of reduction in fallow lands. Closely related to this is the category of lands sown more than once. The lands under this category measured 1467 hectares (1.52 percent to the total geographical area). The cropping intensity of the taluka measured 1.05 in the beginning of the period; but by the end of the period

we observed that the cropping intensity of the taluka worked out to be just zero (1983-84). This is mainly because during the last but three years the area under the category of area sown more than once has not been reported at all. In point of fact the area in this category would have increased with the extension of irrigation sources but unfortunately the double cropped area did not increase pari pasu with the irrigated area. The explanation could be sought in the extension of the area under sugar cane and most probably the practice of not counting the sugar cane area under double cropped area, for the sugar cane crop is a twelve months' crop (annual crop). The annual compound growth rate, therefore, worked out to be negative that (-) 6.92 percent. Coming to the final category of the gross cropped area we notice an increasing trend from the behaviour of area index. However, its proportion to gross cropped area did not exceed even 50 percent by the end of the period i.e. (48,50 percent) of the total geographical area; which is just equal to the percentage of the net sown area. (The index number just increased to 139.81 by 1983-84. Because of this marginal increase the growth rate of gross cropped area worked out to be positive but slightly less than 1.00 percent i.e. 0.86 percent compound per annum.

Over the longer period of time from the foregoing analysis of the different land-use categories.

we conclude that there has not been any significant increase in net sown area and the area sown more than once and consequently the gross cropped area in the taluka. Though one can justify a shift from the short duration seasonal crops like rice, ragi and some other rabi pulse crops to the perennial irrigated cash crops mainly sugar cane. The productivity of sugar cane, however, did not increase. The output growth of sugar cane could be attributable to the area extension having no contribution from its productivity. The extension of the area under sugar cane might have been mainly responsible for the negative growth rate of the area under the category of the area sown more than once. Even in view of the extension of the irrigation facilities in future, one cannot expect cropping intensity to increase because of the perference of the farmers revealed so far, for the cultivation of sugar cane on the irrigated areas which is likely to continue in future also.

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Year	Tot Geç _{ws} phi Are	Total fallows ll+12	Net Area Sown	Area Sown more than once	Gross cropped Area
	······································	13	14	15	16
1950-51	959 ₅	25546	31579	1457	33036
	1004)	(26.62)	(32.91)	(1.52)	(34.43)
	1000	100.00	100.00	100.00	100.00
1951-52	96:4	24494	32125	1530	33655
	100 8)	(25.42)	(33.34)	(1.76)	(34.93)
	100 6	95.88	101.73	116.68	101.87
1952-53	96;4	24413	31781	1700	33482
	100,2)	(25.34)	(32.98)	(1.77)	(34.75)
	100,6	95.56	100.64	116.75	101.35
1953–54	9631	25182	32470	1336	33806
	1001)	(26.13)	(33.70)	(1.89)	(35.08)
	1007	98.57	102.82	91.70	102.33
1954-55	9637	24656	34575	1579	36154
	100-5)	(25.59)	(35.88)	(1.64)	(37.52)
	100-5	96.52	109.49	108.37	109.44
1955-56	9633	23700	34008	1457	35466
	100.1)	(24.60)	(35,29)	(1.51)	(36.81)
	100.6	92.77	107,69	100.00	107.36
1956-57	9645	23643	33563	1214	34777
	100.2)	(24.54)	(34.83)	(1.26)	(36.09)
	100.8	92.55	106.28	83.32	105.27
1957-58	9650 100.3) 100.4		34534 (35.79) 109.36	567 (0.59) 38.92	35101 (36.38) 106.25

(Area in Hectares)

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Table No.2.]	13	14	15	16
1958-59 3)		33968 (35.19) 107.56	810 (0.84) 55.59	35777 (37.06) 108.30
1959-60 B) 6	 	35263 (36.52) 111.66	567 (0.59) 38.92	35830 (37.11) 108.46
1960 - 61 7) 5	-	36093 (37.40) 114.29	510 (0.53) 35.00	36603 (37.93) 110.80
1961-62 5) 9	-	36982 (38.32) 117.11	673 (0.70) 46.19	37655 (39.02) 113.98
1962-63 3) 0	-	37230 (38.58) 117.89	634 (0.66) 43.51	37864 (39.23) 114.65
1963-64 13) 15	19415 (20.13) 76.00	36704 (38.05) 116.23	821 (0.85) 56.35	37525 (38.90) 113.59
1964 - 65 0)	17653 (18.30) 69.10	38466 (39.88) 121.81	926 (0.96) 63.56	39392 (40.84) 119.24
3 1965_66	18698 (19.38) 73.19	37421 (38.79) 118.50	857 (0.89) 58.82	38278 (39.68) 115.87
1966-67 <u>32</u>) 37	18248 (18.92) 71.43	37749 (39.13) 119.54	707 (0.73) 48.52	38456 (39.86) 116.41
1967-68, 51) 56	20867 (21.63) 91.63	35130 (36.42) 111.24	728 (^.75) 49.97	35858 (37.17) 108.54
1968-69)1) 56	20461 (21.21) 80.09	35536 (36.84) 112.53	585 (0.61) 40.15	36121 (37.44) 109.34

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- -	13	14	15	16
1969-70	14550	36630	338	36968
	(15.07)	(37.94)	(0.35)	(38.29)
	56.96	116.00	23.20	111.90
1970-71	10203	36864	365	36229
	(10.57)	(38.18)	(0.38)	(37.53)
	39.94	116.73	25.05	109.67
1971-72	9264	36741	479	37220
	(9.59)	(38.05)	(0.50)	(38.55)
	36.26	116.34	32.87	112.66
1972-73	9317	37222	346	37568
	(9.65)	(38.55)	(0.36)	(38.91)
	36.47	116.34	23.75	113.72
1973-74	9497	37892	586	38478
	(9.84)	(39.25)	(0.61)	(39.86)
	37.18	119.99	40.22	116.47
1974-75	13134	39718	375	40093
	(13.60)	(41.14)	(0.39)	(41.53)
	51.41	125.77	25.74	121.36
1975-76	15462	40721	351	41065
	(16.02)	(42.18)	(0.36)	(42.54)
	60.53	128.95	24.09	124.30
1976-77	15462	40614	137	40751
	(16.02)	(42.07)	(0.14)	(42.21)
	60.53	128.61	9.40	123.35
1977-78	12900	43494	331	43925
	(13.36)	(45.05)	(0.34)	(45.50)
	50.50	137.73	22.72	132.96
1978-79))	12979	43515	79	43594
	(13.44)	(45.07)	(0.08)	(45.15)
	50.81	137.79	5.42	131.96
1979-80	12302	43671	348	44019
	(12.74)	(45.23)	(0.36)	(45.59)
	48.16	138.29	23.88	133.25
	844 954 844 844 844 844			• ••• == == ••• ==

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Table No.2.J					
 1 .	13	14	15	16	
	12528	44045	_	44045	
1980 -81)	(12.98) 49.04	(45.62) 139.47	-	(45.62) 133.32	
1981-82	11088	44280	118	44398	
1901 - 02)	43.40	140.22	8.10	134.39	
1982-83	10347	44729		44729	
	40.50	(40.33) 141.64	-	(40.33) 135.39	
	6324	46189	4000 gan 4000 4000	46189	
1900-04)	(6.64) 24.76	(48,50) 146,26		(48.50) 139.81	
The Rate of N.W. (+)1.06) (-)6.92 (+)0.86 increase(+)					
decrease(-)					
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dgad Taluka					
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