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Land use pattern in Tamil Nadu

by
M. Thangaraj

Madras Institute of Development Studies
79, Second Main Road, Gandhi Nagar
Adyar, Chennai 600 020

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LAND USE PATTERN IN TAMIL NADU

Abstract

The objective of this study is to examine the land use pattern in Tamilnadu. The specific issues addressed to in this report are (i) whether is there any scope for further expansion in the area of land for cultivation and (ii) is there any way for further reduction in the ceiling on landholdings for full and efficient utilisation of land.

The data on land use pattern by districts were collected from Season and crop reports and by size class of operational holdings from Agricultural census. An attempt was made to study the land use pattern by district level and state level. Linear trend analysis and Location co-efficient have been used to estimate the variation in the land use pattern. The report is organized into eleven specific issues involved in the land use pattern as given in the Season and Crop report.

The results of the analysis indicate that there is a greater scope for further expansion of land for cultivation, as the existance of vast area of land under the use of cultivable waste, permanent pastures and grazing lands, miscellaneous tree crops and groves, current fallows and other fallows. More than half of the geographical area is unsown. The study also indicates that the area of land under the cultivable waste, current fallows and other fallows was higher in the large size holdings than that of the small size holdings. This in fact suggests that there is a need for reduction of ceiling on landholdings for proper and efficient utilisation of land.

LAND USE PATTERN IN TAMIL NADU

M.Thangaraj *

Land is an important productive asset and also the major source of livelihood for most of the rural people in India. The basic needs, such as, food, shelter, fuel and clothing are directly obtained from land. It also provides multiple utilities to the owner or the user. The existing land use pattern is unbalanced, as the share of forest land to the total geographical area is lower than that of the minimum required for the protection of the environment from ecological degradation. The increasing needs consequent to growth of population require a revision or rectification of existing land-use pattern. The problem of land use pattern has hardly received any attention in Tamil Nadu. The non-cropped area also has not been researched very well by the social scientists. This in fact, calls for an investigation as to how the land has been utilised and to suggest measures to increase the production.

An attempt has been made in this paper to examine the land use pattern in Tamil Nadu. The objective of the study is to analyse the land use pattern and also to indicate the broad direction of changes needed for proper and efficient utilisation of land. An effort is also made to study the land use pattern by size of operational holdings.

This study intends to verify the following hypotheses.

* Madras Institute of Development Studies.

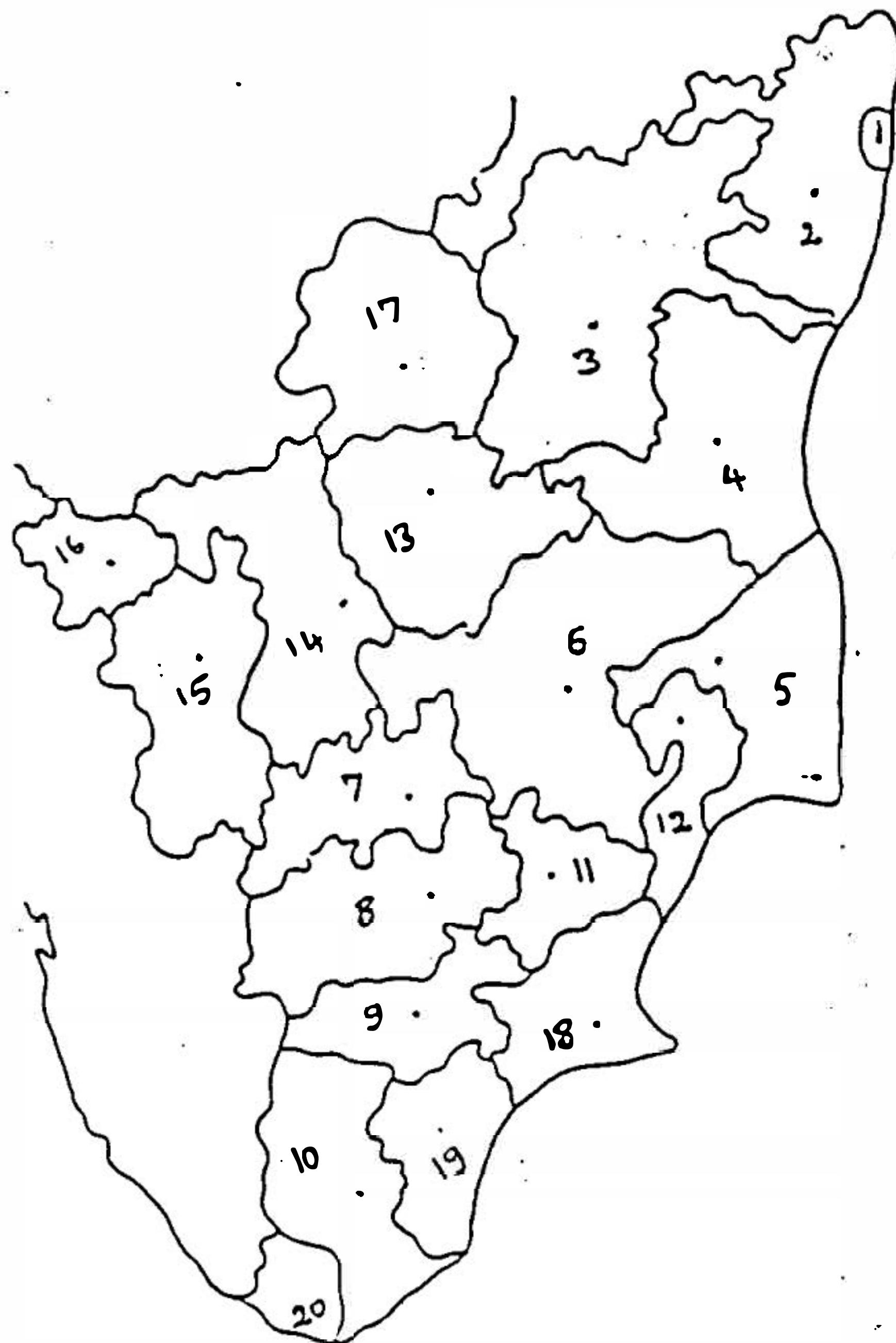
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(i) High incidence of landlordism has been largely responsible for the high percentage of land unused and

(ii) There is no scope for further expansion of the area under cultivation.

The data were mainly collected from season and crop reports, for the period of 19 years from 1970-71 to 1988-89 and from the Agricultural censuses for the years 1970-71, 1976-77, 1979-80 and 1985-86. The data collected from Season and Crop Report with regard to the reference period are not uniform for all districts, as some of the districts were divided. Pudukottai district was created in 1974 with three taluks from Tiruchirapalli district and one coastal taluk and a few bordering villages from Thanjavur district. Coimbatore district was bifurcated into Coimbatore and Periyar and the data are available separately from 1979-80; Madurai district was divided into Madurai and Anna and the data are given separately from 1985-86; Ramanathapuram district was trifurcated into Ramanathapuram, Kamraj and T.Thirumaganar and the data are presented separately from 1984-85; and Tirunelveli district was bifurcated into Tirunelveli and Chidambaranar and the data are available separately from 1986-87. Agricultural census data related to the years 1970-71 and 1979-80 are complete census and 1976-77 and 1985-86 are estimated based on 20 per cent sample of the villages. The study covers state level, regional level (inland and coastal) and district level of Tamil Nadu. Inland region consists of 11 districts, viz., North Arcot, Dharmapuri, Salem, Periyar, The Nilgiris, Coimbatore, Tiruchirapalli, Anna, Madurai T.Thirumaganar, and Kamraj and

MAP OF TAMILNADU



Districts

- | | |
|-----|-----------------|
| 1. | MADRAS |
| 2. | CHENGLEPUT |
| 3. | NORTH ARCOT |
| 4. | SOUTH ARCOT |
| 5. | THANJAVUR |
| 6. | TIRUCHIRAPALLI |
| 7. | ANNA |
| 8. | MADURAI |
| 9. | KAMARAJAR |
| 10. | TIRUNELVELI |
| 11. | T. THIRUMAGANAR |
| 12. | PUDUKKOTTAI |
| 13. | SALEM |
| 14. | PERIYAR |
| 15. | COIMBATORE |
| 16. | NILGIRIS |
| 17. | DHARMAPURI |
| 18. | RAMANATHAPURAM |
| 19. | CHIDAMBARAMAR |
| 20. | KANYAKUMARI |

the coastal region consists of 9 districts viz., Madras, Chingleput, South Arcot, Thanjavur, Pudukottai, Ramanathapuram, Chidambaranar, Tirunelveli and Kanyakumari. The data on land use pattern given in the season and crop report represent the total geographical area which include both rural and urban areas while the Agricultural census provides the data pertaining to the operational holdings. Linear trend analysis and location coefficient have been used to estimate the variation in the land use pattern. Time has been taken as independent variable and the type of land use has been taken as dependent variable. It should be noted that as the number of observation (reference period) was less for the newly formulated districts, the regression results may not significant. However the data and results were given separately for those districts which were divided without regard to the division. The required formulas are therefore specified as:

$$1. \quad Y_t = a_0 + b_1 X_t$$

X = Land use type

a and b = constant and co-efficient.

$0 \quad 1$

t = Time

L_{ij}/L_i

$$2. \quad L_{Ci} = \frac{---}{L_j/L}$$

L_{Ci} = Location coefficient at the i^{th} district

L_{ij} = The extent land in the i^{th} district in the j^{th} type of land use.

L_i = Total area of the i^{th} district

L_j = Total area under j^{th} type of land use in the state, and

L = Total area of the state.

On the basis of the use, land can be broadly divided into two broad groups viz., arable land and non-arable land. The arable land constitutes all cultivable land comprising of (i) net sown area, (ii) current fallows (iii) other fallow lands and (iv) land under tree crops and groves not included in the net sown area. The non arable land consists of the land under (i) cultivable waste (ii) barren and uncultivable land (iii) land put to non-agricultural uses and (iv) pastures and other grazing land.

The season and crop report classifies the land into nine categories on the basis of utilisation. They are: (1) forest (2) Barren and uncultivable land, (3) land put to non-agricultural uses, (4) cultivable waste (5) permanent pastures and other grazing land (6) miscellaneous tree crops and groves not included in the net area sown (7) current fallows (8) other fallow lands and (9) net sown area. Agricultural census classifies the land use into six fold. They are (1) net sown area (2) current fallows (3) fallow land other than current fallows, (4) the permanent pastures and other grazing and land under miscellaneous tree crops have been clubbed together and are recorded as "uncultivated area other than fallow land", (5) similarly land not available for cultivation includes forests, land put to non agricultural uses and barren and uncultivable land and (6) cultivable waste. The definitions of Agricultural census clearly indicate that there is practically no difference between the nine fold classification of land use pattern adopted for season and crop report and the six fold classification of land use adopted for Agricultural census by the state government.

1. Forest Land

Forest land represents all lands classified as forest under any legal enactment dealing with forests or administered as forests, whether state or private owned and whether wooded or maintained as potential forest land. Most of the forest areas are situated in and around hilly and mountainous terrain. The total area under forest does not represent the forest cover area, as lot of forest area does not have any tree. The area under forest could be seen from Appendix 1. About 22 lakh hectares of land was under forest in 1988-89 which represents about 17 per cent of the total geographical area. It is worthwhile to mention the goal of the National forest policy enunciated in 1952. The National forest policy states that one third of the country's total area should be under forests. The state has to go a long way to achieve the national goal of bringing the area of land under forest to one third of the total geographical area of the state. The national forest policy further states that, in the hilly terrain, the proportion of forest cover should be 60 per cent of its geographical area and in the plain 20 per cent. The percentage of forest area to the total geographical area was low in 10 districts viz., Madras, Chengalpattu, South Arcot, Trichirapalli, Pudukottai, Thanjavur, Ramanathapuram, Kamaraigar T.Thirumanaganar and Chidambaranar during 1970-71 to 1988-89. The percentage was higher for other districts. The total area under forest accounted for 1.1 per cent in Ramanathapuram, 38.2 per cent in Dharmapuri and 56 per cent in the Nilgiris district. It could also be seen from the appendix that the total area under forest was more in the hilly terrain viz., the Nilgiris,

Dharmapuri, North Arcot, Salem, Periyar and Madurai. Further it could also be seen that the percentage of area under forest varies from 15.1 per cent to 16.6 per cent over the years at the state level. The regional level data show that the area classified as forest has increased from 339499 ha. in 1970-71 to 352342 ha. in 1988-89 in the coastal region and from 1673507 ha. in 1970-71 to 1811834 ha. in 1988-89 in the inland region. Thus the data clearly show that the increase in the forest area was highest in the inland region than that of the coastal region. The data reveal that the second largest utilisation of land in the state is under forest area. The state level, regional level and district level data show that the area under forest is far below the estimates of national forest policy. The data clearly show that the spatial distribution of forest is uneven. It is worthwhile to examine the linear trend analysis.

The desired sign of the linear trend was in the positive direction, as the state administered policy towards the extension of land under forest through social forestry, etc. The observed sign (Table 1) was in the negative direction in (1) Coimbatore (old), (2) Periyar, (3) Tiruchirapalli (4) Pudukottai and (5) Chidambaranar, but the negative trend was significant only in Coimbatore (old) and Pudukottai districts. While in the rest of the district the trend was positive but the trend was not significant in South Arcot, Coimbatore (new), Thanjavur, Madurai (new), Anna, Ramanathapuram (new), Kamarajar, T.Thirumaganar and Tirunelveli (new). At the state level, the observed trend was positive and also significant.

Table:1 Linear trend analysis: Forest land

	X Coef.	Std Err of Coef.	R Squared	t value	Level of Signif- icance
1 MADRAS	—	—	—	—	—
2 CHENNAI-PUT	488	88	0.643	5.54 S	
3 SOUTH ARCOT	390	371	0.061	1.05 NS	
4 PUDUKOTTAI	-109	19	0.677	-5.61 S	
5 THANJAVUR	33	61	0.017	0.55 NS	
6 RAMANATHAPURAM-old	263	66	0.48	3.96 S	
6 RAMANATHAPURAM-new	31	59	0.083	0.52 NS	
7 TIRUNELVELI-old	318	47	0.728	6.75 S	
7 TIRUNELVELI-new	1267	557	0.838	2.27 NS	
8 CHIDAMBARAMAR	-877	506	0.75	-1.73 NS	
9 KANYAKUMARAI	335	61	0.642	5.52 S	
10 NORTH ARCOT	10	2	0.734	6.84 S	
11 SALEM	624	155	0.488	4.02 S	
12 DHARMAPURI	1533	313	0.585	4.9 S	
13 COIMBATORE-old	-679	227	0.346	-3 S	
13 COIMBATORE-new	150	334	0.025	0.45 NS	
14 PERIYAR	-258	160	0.246	-1.62 NS	
15 TIRUCHIRAPALLI	-969	541	0.159	-1.79 NS	
16 MADURAI-old	1507	595	0.274	2.53 S	
16 MADURAI-new	6414	3703	0.6	1.73 NS	
17 ANNA	10241	4354	0.735	2.35 NS	
18 KAMARAJAR	169	56	0.75	3 NS	
19 T.THIRUMAHANAR	675	709	0.232	0.95 NS	
20 THE NILGIRIS	2410	377	0.706	6.38 S	
21 STATE	6911	1225	0.652	5.64 S	

Note: S and NS denote significant and not significant at 5%

2. Barren and uncultivable land

This category of land represents mountain, deserts etc. which are practically useless for non-agricultural purpose and unfit for cultivation. This land can not be brought under cultivation without reclamation involving heavy investment. It is a non arable land and is considered as community land. The distribution of area under barren and uncultivated land could be seen from the Appendix 2. The state level data show that the land under this class has drastically reduced from 832035 ha. (6.4 per cent) in 1970-71 to 512597 ha. (3.9 per cent) in 1988-89. There was a marked decline in the barren and uncultivable land in the Nilgiris district. The extent of land under this type accounted for 13.3 per cent of the total area upto 1975-76 and it continued to decline since 1976-77 to less than 2 per cent. In Kanyakumari district, the area of land under this class was more than 10 per cent upto 1972-73 and it declined to less than 5 per cent from 1973-74. Regional level data show that in the coastal region the barren and uncultivable land declined from 374071 ha. in 1970-71 to 219578 ha. in 1988-89 and in the inland region from 457964 ha. in 1970-71 to 293019 ha. in 1988-89. Thus the data clearly show that the decline in the barren and uncultivable land was more in the case of coastal region than that of the inland region.

The expected sign of the coefficient of X for the barren and uncultivable land was negative. This is mainly due to decrease in the per capita availability of arable land consequent to rapid increase in the population. At the district level, the

coefficients were (Table 2) positive in Coimbatore (old), Thanjavur, Anna and Chidambaranar, but the value of positive coefficients were significant only in Thanjavur and Coimbatore districts. At the state level, the observed linear trend was negative and significant. The negative linear trend at the state level indicates that the unproductive land was put to productive purposes. This was a significant and positive development for our economy.

3. Land put to non-agricultural uses

The land put to non agricultural uses represents all lands occupied by buildings, roads, railways, or under water eg. river, canal, and other lands put to uses other than agriculture. The increase in the area under this type of land indicates that the agricultural land is being diverted to non-agricultural purposes. Though, this is not a desirable trend for agricultural development yet it is an index for economic development as this land is being used for developmental activities. It is clear from Appendix 3 that the area of land put to non agricultural uses has increased remarkably from 11.4 per cent in 1970-71 to 14.0 per cent in 1988-89 at the state level. The land under this class has increased remarkably in Kanyakumari districts than that of the other districts. At the Regional level, the proportion of land put to non-agricultural uses was higher in the coastal region (Madras with 98%, Chingleput 26%, South Arcot 13%, Thanjavur 18%, Pudukottai 26%, Ramanathapuram 19%, Chidambaranar 19%, Tirunelveli 14% and Kanyakumari 14%) than that of the inland

Table:2 Linear trend analysis: Barren and uncultivable land.

	X Coef.	Std Err R Squared	t value	Level of Significance
	of Coef.			
1 MADRAS	-	-	-	-
2 CHENNELPUT	-1090	264	0.501	-4.13 S
3 SOUTH ARCOT	-3864	306	0.903	-12.61 S
4 THANJAVUR	356	76	0.563	4.68 S
5 PUDUKOTTAI	-2	.30	0.0003	-0.07 NS
6 RAMANATHAPURAM-old	-2205	411	0.628	-5.36 S
6 RAMANATHAPURAM-new	-601	347	0.5	-1.73 NS
7 TIRUNELVELI-old	-690	311	0.224	-2.22 NS
7 TIRUNELVELI-new	-138	80	0.75	-1.73 NS
8 CHIDAMBARAMAR	1770	1022	0.75	1.73 NS
9 KANYAKKUMARAI	-752	144	0.615	-5.21 S
10 NORTH ARCOT	-1813	129	0.921	-14.1 S
11 SALEM	-374	170	0.221	-2.2 S
12 DHARMAPURI	-1623	208	0.782	-7.81 S
13 COIMBATORE-old	1656	383	0.523	-4.32 S
13 COIMBATORE-new	-104	13	0.89	-8.03 S
14 PERIYAR	-40	27	0.222	-1.51 NS
15 TIRUCHIRAPALLI	-718	89	0.791	-8.03 S
16 MADURAI-old	-195	214	0.047	-0.91 NS
16 MADURAI-new	-173	227	0.225	-0.76 NS
17 ANNA	409	5173	0.003	0.08 NS
18 KAMARAJAR	-21	12	0.5	-1.73 NS
19 T. THIRUMAHANAR	-10	215	0.0007	-0.05 NS
20 THE NILGIRIS	-2033	351	0.664	-5.8 S
21 STATE	-16367	1688	0.847	-9.69 S

Note: S and NS denote significant and not significant at 5%

region (North Arcot with 14%, Dharmapuri 5%, Salem 8%, Periyar 9%, The Nilgiris 4%, Coimbatore 11%, Tiruchirapalli 14%, Anna 10%, Madurai 11%, T.Thirumaganar 27% and Kamarajar 16%) in 1988-89. The total area has increased from 828001 ha. in 1970-71 to 9136003 ha. in 1988-89 in the coastal region and from 148857 ha. in 1970-71 to 1824177 ha. in 1988-89 in the inland region. But the data clearly show that the increase in the area was more in the inland region than that of the coastal region. This use of land ranks third next to net sown area and the land under the forest. Thus there has been an increase in the area of land put to non-agricultural uses due to rapid growth of commercial establishments, educational institutions, transportation etc. The use of land under this category has increased steadily over the years and it is bound to increase in future also.

The expected sign of the co-efficient of X was positive for the land put to non agricultural uses. The direction of the trend was not positive (Table 3) in (1) Salem, (2) Dharmapuri, (3) Tiruchirapalli, (4) Pudukottai, (5) Thanjavur, (6) Madurai (new), (7) T.Thirumaganar, (8) Tirunelveli (new), and (9) The Nilgiris, the negative coefficient was significant only in (1) Dharmapuri, (2) Pudukottai and (3) the Nilgiris. At the state level, as expected, the trend was positive and significant. This indicates that there was a positive development in the land to put to non agricultural uses.

It is worthwhile noting that though there is a decrease in the land under barren and uncultivable land and an increase in

Table:3 Linear trend analysis: Land put to non-agricultural uses.

	X Coef.	Std Err of Coef.	R Sqared t value	Level of Signifi- cance
1 MADRAS	335	54	0.69	6.2 S
2 CHENNAI	2096	139	0.93	15.12 S
3 SOUTH ARCOT	3380	338	0.85	10 S
4 PUDUKOTTAI	-849	121	0.77	-7.04 S
5 THANJAVUR	-493	681	0.03	-0.72 NS
6 RAMANATHAPURAM-old	2698	293	0.83	9.21 S
6 RAMANATHAPURAM-new	846	344	0.67	2.46 NS
7 TIRUNELVELI-old	2639	399	0.72	6.62 S
7 TIRUNELVELI-new	-219	683	0.09	-0.32 NS
8 CUDAMBARANAR	43	1460	0.0009	0.03 NS
9 KANYAKUMARAI	660	123	0.63	5.37 S
10 NORTH ARCOT	3634	262	0.92	13.86 S
11 SALEM	-215	227	0.05	-0.94 NS
12 DHARMAPURI	-2565	324	0.79	-7.91 S
13 COIMBATORE-old	4065	610	0.72	6.67 S
13 COIMBATORE-new	579	265	0.37	2.18 NS
14 PERIYAR	1164	310	0.64	3.76 S
15 TIRUCHIRAPPALLI	-1454	935	0.12	-1.56 NS
16 MADURAI-old	1990	138	0.92	14.41 S
16 MADURAI-new	-1851	1492	0.43	-1.24 NS
17 ANNA	1062	197	0.94	5.4 S
18 KAMARAJAR	568	105	0.91	5.4 S
19 T.THIRUMAHANAR	-1134	582	0.56	-1.95 NS
20 THE NILGIRIS	-182	42	0.52	-4.3 S
21 STATE	19807	1388	0.92	14.27 S

Note: S and NS denote significant and not significant at 5%

the land put to non agricultural uses the total area under these two categories remains more or less the same. Therefore, the land that has been converted from barren and uncultivable land to cultivation seems to have been compensated by the land transformed from the cultivated land into non-agricultural uses. Practically, there is no increase in the net sown area.

Buildings are necessary for residential and commercial purposes for basic human activities and also it accounts for one of the major components of land put to non agricultural uses. An attempt has been made to examine the population density and the land put to non agricultural uses. A comparison of data on population density (Table 4) and the area of land put to non-agricultural uses and the land man ratio or per capita availability of land and the intensity of cropping pattern (Table 5) reveal an interesting observation. It denotes that the two variables viz., population density and the land put to non-agricultural uses are positively correlated but not significantly. The land man ratio or per capita availability of land and the intensity of cropping pattern (Table 5) are negatively correlated.

Land not available for cultivation

Agricultural census provides the data on land use pattern by size class of operational holdings. It is in this context, worthwhile to investigate the land not available for cultivation by size of operational holdings. The land not available for cultivation includes the area of land under private forests, land

Table 4

Population and area of districts in Tamil Nadu

Districts	Percentage of population to total population (1981)	Percentage to total area (1981)	Population Density per Sq.Km. based on cultivated area (1981)*	Population Density Per Sq.Km.		
				1971	1981	1991**
1) Madras	6.77	0.13	—	15172	19274	21811
2) Chengalpattu	7.47	6.05	1119	356	460	588
3) North Arcot	9.12	9.43	981	306	360	494
4) Thiruvannamalai Sambuvarayar	—	—	—	—	—	323
5) South Arcot	8.68	8.38	687	332	386	447
6) Dharmapuri	4.13	7.40	530	174	208	249
7) Salem	7.11	6.65	856	346	398	453
8) Periyar	4.27	6.31	838	219	252	283
9) Coimbatore	6.32	5.74	811	345	410	473
10) The Nilgiris	1.30	1.96	1079	194	247	277
11) Madurai	9.37	9.71	771	312	359	525
12) Dindigul Quaid-E- Milleth	—	—	—	—	—	292
13) Tiruchirapalli	7.46	8.53	630	288	326	371
14) Thanjavur	8.40	6.37	712	429	491	547
15) Pudukkottai	2.39	3.58	605	203	248	284
16) Ramanathapuram	6.89	9.68	546	227	265	268
17) T.Thirumaganar	—	—	—	—	—	263
18) Kamarajar	—	—	—	—	—	363
19) Tirunelveli	7.38	8.79	852	280	313	366
20) Chidambaram	—	—	—	—	—	315
21) Kanyakumari	2.94	1.29	1749	726	845	945
Tamil Nadu	100.00	100.00	812	317	372	428

Source: Census of India 1981 (Tamil Nadu), Portrait of Population pp34, 35, 39, 41

Note: * Cultivated area includes Net area sown and land under miscellaneous tree crops

** Dinamani (Tamil Daily) March 27, 1991

Table 5

Land-man ratio and intensity of cropping

Sl.No.	District	Man-land ratio 1981*	Intensity of cropping 1977-78**
1)	Madras		
2)	Chengalpattu	0.208	141.3
3)	North Arcot	0.197	134.0
4)	South Arcot	0.194	128.6
5)	Dharmapuri	0.259	125.3
6)	Salem	0.215	118.0
7)	Periyar	0.315	116.7
8)	Coimbatore	0.329	115.9
9)	Nilgiris	0.226	102.3
10)	Madurai	0.265	114.8
11)	Tiruchirapalli	0.281	111.4
12)	Thanjavur	0.192	160.6
13)	Pudukkottai	0.270	107.8
14)	Ramanathapuram	0.375	106.0
15)	Tirunelveli	0.312	119.4
16)	Kanyakumari	0.072	137.1
	Tamil Nadu	0.246	123.4

Source: Ramesh A., and Tiwari P.S.,(ed.) Basic Resource Atlas of Tamil Nadu, Department of Geography, University of Madras, Madras, 1983

Note: * Total available land (net sown area, current fallows and other fallow) per head of rural population in ha.
 ** Total cropped area as percent of net sown area.

put to non-agricultural uses and barren and uncultivated land. Agricultural census does not provide data separately for area under forest, land put to non-agricultural uses and barren and uncultivated land, and a total of all these items is put together under the title land not available for cultivation. It could be seen from Table 6 that the land not available for cultivation has increased steadily with increase in the size of operational holdings in 1970-71. The percentage of land not available for cultivation was less than 2 per cent upto the size classes of less than 10.00 ha. while the percentage was more than 2 in the size of holdings more than 10.00 ha in 1970-71 and 1979-80. The main reason for the fluctuation in the land not available for cultivation could be mainly due to the data obtained from census method in 1970-71 and 1979-80 and sample method in 1976-77 and 1985-86. The percentages of land not available for cultivation were more or less the same for all size classes in 1970-71 and 1979-80. Not only there was a wide difference in the percentages of land not available for cultivation but also the percentages were small in 1976-77 and 1985-86 compared to 1970-71 and 1979-80. This clearly indicates that there was under reporting of data in the sample method in 1976-77 and 1985-86. There was a sharp decline in absolute as well as percentage in the size class of more than 50 ha. and the percentage of total area declines as the size class declines in the initial years but this is not so in the latter years in the land not available for cultivation. This may be due to shift of land from large size holdings to relatively small size holdings. Though there was a fluctuation in the land not available for

Table 6

Distribution of land not available for cultivation to total operated area in Tamil Nadu (in ha.)

Size class	1970-71	1976-77	1979-80	1985-86
1) 0.0 - 0.5	7463 (1.67)	4669 (0.72)	13354 (1.62)	2866 (0.34)
2) 0.5 - 1.0	12325 (1.53)	6409 (0.67)	15280 (1.41)	4670 (0.40)
3) 1.0 - 2.0	24864 (1.61)	10932 (0.69)	21776 (1.27)	8984 (0.51)
4) 2.0 - 3.0	18253 (1.63)	8048 (0.72)	17064 (1.55)	5804 (0.54)
5) 3.0 - 4.0	13095 (1.70)	5351 (0.71)	10121 (1.40)	3798 (0.54)
6) 4.0 - 5.0	9870 (1.76)	4509 (0.81)	5977 (1.17)	2502 (0.52)
7) 5.0 - 7.5	-- --	6677 (0.86)	9098 (1.33)	3836 (0.57)
8) 7.5 - 10.0	23866* (1.81)	3507 (0.83)	6657 (1.84)	1892 (0.54)
9) 10.0 -20.0	13123 (2.04)	8945 (1.81)	8678 (2.04)	3538 (0.83)
10) 20.0 - 30.0	4263 (2.72)	1667 (1.51)	1869 (1.80)	468 (0.53)
11) 30.0 - 40.0	1866 (2.84)	444 (1.20)	735 (2.04)	232 (0.89)
12) 40.0 - 50.0	1381 (5.29)	212 (1.28)	656 (3.14)	104 (1.07)
13) Above 50.0	11524 (14.48)	4006 (4.25)	2407 (1.88)	396 (0.44)
14) Total	141892 (1.88)	65376 (0.86)	113673 (1.47)	39090 (0.51)

* Size class 5.0 - 10.0

Note: Figures in brackets indicate the percentage of land not available for cultivation to total area in each size class.

cultivation but the trend shows that the percentage of land not available for cultivation was also small in the small size classes than that of the large size classes in 1979-80 and 1985-86. Thus the data indicate very clearly that the percentage of land not available for cultivation to total operated area was more in the case of higher size holdings whereas it was lower in the smaller size of holdings. This in fact, calls for reduction of ceiling on land holdings as the land not available for cultivation appears to be minimum in the lower size class of operational holdings.

It should be noted that there are several factors such as land concentration, productivity, income, technology, irrigation etc. determine the level of ceiling on landholdings. However, in this paper, the need for reduction in the level of ceiling on landholdings has been discussed based on land use pattern only.

4. Cultivable waste

The area of land under cultivable waste represents all land available for cultivation whether not taken up for cultivation or taken up for cultivation once but not cultivated during the current year and previous five years or more in succession. The cultivable waste lands are definitely cultivable but are at present lying as waste on account of number of severe limitations. These limitations may occur as a result of excessive sandyness, waterlogging, flood and erosion, weed jungle, scarcity of water, distance from house site to land and danger from wild animals. Given such limitations, it is

uneconomic to cultivate the cultivable waste land and if these limitations are removed, then this land can be brought under cultivation. It could be seen from the Appendix 4 that the land under this category has come down steadily from 306862 ha. (3.9 per cent) in 1970-71 to 289161 ha. (2.2 per cent) in 1988-89 at the state level. Among all districts only in Dharmapuri district, the cultivable waste land has increased. This may be due to non-availability of water for cultivation. An attempt has also been made to assess the percentage of area of land under irrigation. As can be seen from the Table 7 that the area under irrigation is low in Dharmapuri district when compared to other districts in Tamil Nadu. The land under this category has been drastically reduced in three districts viz. Ramanathapuram, the Nilgiris, and Kanyakumari. The area classified as cultivable waste has declined from 269983 ha. in 1970-71 to 148778 ha. in 1988-89 in the coastal region and from 236879 ha. in 1970-71 to 140389 ha. in 1988-89 in the inland region. Thus the data very clearly denote that the decrease in the area classified as cultivable waste was more in the coastal region than that of the inland region. It is important to note that the existence of cultivable waste land provides a greater scope for further extension of cultivation in Tamil Nadu, as these lands can be reclaimed by applying scientific measures.

The expected sign of the X coefficient was negative for the cultivable waste land. The linear trend analysis (Table 8) shows that the trend was positive only in 5 districts viz., (1)

Table 7

Total net area irrigated excluding wells supplementing other sources/percentage
of net area irrigated to net area sown

Districts	1970-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
1) Madras	—	—	—	—	—	—	—	—	—	—
2) Chengalpattu	249161 (74.2)	240001 (70.0)	229636 (68.7)	228297 (69.9)	174978 (61.0)	243049 (71.7)	260914 (77.7)	260571 (74.5)	259770 (75.2)	269815 (81.7)
3) South Arcot	299555 (50.2)	305184 (50.1)	308019 (49.9)	300067 (51.0)	343138 (65.6)	286920 (53.1)	302920 (53.3)	357337 (62.1)	353636 (60.6)	356671 (60.4)
4) North Arcot	264470 (49.1)	271685 (51.4)	284009 (53.6)	287495 (53.1)	264629 (50.0)	258691 (48.2)	248856 (45.8)	286860 (52.3)	255520 (48.1)	267823 (51.3)
5) Salem	120374 (29.7)	116485 (27.8)	160155 (37.5)	148444 (34.5)	119520 (30.1)	115263 (27.4)	89071 (22.1)	109177 (25.2)	127763 (29.4)	153685 (34.7)
6) Dharmapuri	63218 (15.5)	63097 (15.6)	65115 (16.1)	67505 (19.3)	68762 (18.2)	65618 (15.5)	53525 (12.9)	72753 (17.1)	77406 (17.4)	82718 (18.9)
7) Coimbatore	255704 (35.2)	286812 (37.3)	308028 (41.1)	311747 (42.0)	262714 (40.6)	290914 (41.6)	214074 (31.6)	304564 (41.4)	308792 (42.5)	145968 (39.0)
8) Periyar	—	—	—	—	—	—	—	—	—	173125 (50.6)
9) Tiruchirapalli	231369 (30.7)	241736 (31.2)	196757 (31.9)	194402 (31.9)	153728 (28.3)	166638 (28.8)	140301 (24.2)	176217 (28.7)	206818 (34.0)	216389 (36.2)
10) Pudukkottai	—	—	107223 (50.4)	102182 (49.3)	66528 (40.7)	98665 (50.1)	93618 (47.7)	107049 (50.1)	106049 (51.2)	108924 (52.0)
11) Thanjavur	506790 (82.6)	516653 (83.3)	472816 (86.3)	447850 (86.4)	470696 (87.4)	474126 (86.1)	376846 (70.8)	473994 (85.9)	482716 (86.9)	485350 (86.6)
12) Madurai	198325 (34.0)	207104 (34.5)	217964 (35.8)	229191 (39.0)	186524 (34.9)	193900 (33.7)	175974 (31.3)	225148 (37.7)	241158 (41.2)	245697 (41.5)
13) Anna	—	—	—	—	—	—	—	—	—	—
14) Ramanathapuram	220603 (36.1)	250625 (38.7)	254259 (38.9)	253391 (39.5)	149933 (31.4)	216213 (35.8)	213470 (34.8)	255852 (40.5)	243059 (39.1)	259263 (41.7)
15) Karur	—	—	—	—	—	—	—	—	—	—
16) T.Thirumaganar	—	—	—	—	—	—	—	—	—	—
17) Tirunelveli	149884 (32.2)	175835 (35.8)	176790 (36.3)	183079 (37.5)	149286 (37.4)	126217 (33.4)	132598 (30.0)	173550 (36.2)	177776 (38.0)	185327 (39.5)
18) Chidambaranar	—	—	—	—	—	—	—	—	—	—
19) The Nilgiris	486 (0.9)	404 (0.7)	258 (0.4)	378 (0.7)	11 —	196 (0.3)	321 (0.6)	3728 (6.3)	3689 (6.3)	4112 (7.0)
20) Kanyakumari	31897 (39.3)	34055 (40.4)	34375 (40.2)	31534 (40.1)	28615 (34.1)	28690 (33.5)	27093 (33.4)	28852 (35.2)	29055 (35.7)	29277 (35.9)
State	2591836 (42.0)	2709676 (42.7)	2815404 (44.5)	2815563 (45.6)	2438062 (43.9)	2565120 (42.8)	2329581 (38.8)	2835652 (45.0)	2873197 (46.0)	2984144 (47.9)

Source: Season and crop reports (various years)

Table 7 (contd..)
**Total net area irrigated excluding wells supplementing other sources/percentage
of net area irrigated to net area sown**

Districts	80-81	81-82	82-83	83-84	84-85	85-86	86-87
1) Madras	-----	-----	-----	-----	-----	-----	-----
2) Chengalpattu	224713 (80.4)	229981 (79.5)	192244 (79.1)	247445 (82.5)	243915 (78.6)	243527 (78.4)	190841 (77.7)
3) South Arcot	286208 (56.2)	310117 (56.0)	213436 (46.1)	243533 (46.0)	292027 (49.0)	321535 (54.0)	296961 (51.1)
4) North Arcot	172993 (40.5)	193193 (44.1)	176100 (43.3)	212873 (42.3)	245246 (49.2)	236923 (46.9)	209444 (47.3)
5) Salem	104918 (30.1)	132666 (33.4)	97782 (27.7)	129836 (31.4)	129683 (32.6)	91649 (24.1)	93689 (23.7)
6) Dharmapuri	66390 (20.9)	76506 (20.8)	58769 (16.7)	74357 (18.8)	40159 (10.1)	77121 (18.8)	81903 (20.0)
7) Coimbatore	162334 (45.9)	153174 (41.8)	152186 (43.7)	143333 (39.3)	167628 (45.0)	142027 (39.6)	144630 (39.9)
8) Periyar	171854 (57.8)	161250 (50.7)	124991 (43.1)	155745 (48.4)	160180 (49.5)	116035 (37.0)	122934 (38.8)
9) Tiruchirapalli	180353 (36.1)	188974 (33.8)	148313 (27.9)	174177 (30.5)	180441 (32.3)	144828 (27.4)	150406 (27.6)
10) Pudukkottai	74292 (51.9)	103418 (56.6)	81204 (49.6)	104284 (52.4)	91603 (50.5)	102413 (51.5)	101468 (52.6)
11) Thanjavur	480667 (86.4)	473994 (85.8)	433888 (85.3)	463723 (86.9)	474874 (87.0)	450111 (87.6)	456318 (88.7)
12) Madurai	231893 (45.2)	239908 (41.9)	188602 (36.0)	261164 (40.4)	218953 (41.0)	124368 (46.1)	127045 (45.0)
13) Anna	-----	-----	-----	-----	-----	69414 (27.8)	68178 (26.6)
14) Ramanathapuram	212025 (39.0)	257942 (42.8)	209207 (38.3)	247317 (42.3)	63631 (32.5)	62741 (30.5)	60432 (29.7)
15) Kamarajar	-----	-----	-----	-----	65196 (32.0)	56095 (30.1)	52732 (27.8)
16) T.Thirumaganar	-----	-----	-----	-----	77050 (65.5)	70459 (56.6)	69265 (57.3)
17) Tirunelveli	174448 (40.2)	158630 (39.7)	148739 (38.1)	161533 (38.7)	160052 (38.6)	161976 (40.0)	70560 (61.6)
18) Chidambaranar	-----	-----	-----	-----	-----	-----	34336 (15.2)
19) The Nilgiris	440 (0.8)	516 (0.9)	515 (0.9)	511 (0.9)	522 (0.9)	522 (0.9)	504 (0.7)
20) Kanyakumari	26984 (33.8)	28605 (35.3)	28946 (35.7)	28253 (35.0)	29192 (35.8)	29048 (35.3)	24059 (30.9)
State	570520 (48.0)	2708874 (47.2)	2254922 (42.9)	2618084 (44.9)	2640352 (45.6)	2500792 (43.9)	2355705 (42.5)

Source: Season and crop reports (various years)

Table:8 Linear trend analysis: Cultivable waste land.

	X Coef.	Std Err	R Squared t value	Level of Signif-icance
1 MADRAS	-	-	-	-
2 CHENNAI	-1928	364	0.623	-5.3 S
3 SOUTH ARCOT	-639	470	0.098	-1.36 NS
4 PUDUKOTTAI	-382	86	0.567	-4.44 S
5 THANJAVUR	-323	96	0.401	-3.37 S
6 RAMANATHAPURAM-old	-3079	556	0.643	-5.54 S
6 RAMANATHAPURAM-new	-411	414	0.247	-0.99 NS
7 TIRUNELVELI-old	-296	110	0.299	-2.69 S
7 TIRUNELVELI-new	101	1175	0.007	0.08 NS
8 CHIDAMBARAMAR	382	314	0.596	1.22 NS
9 KANYAKUMARAI	-128	16	0.797	-8.17 S
10 NORTH ARCOT	-813	126	0.712	-6.48 S
11 SALEM	-425	29	0.928	-14.84 S
12 DHARMAPURI	726	66	0.877	11 S
13 COIMBATORE-old	-1433	300	0.574	-4.78 S
13 COIMBATORE-new	68	22	0.551	3.13 S
14 PERIYAR	-365	96	0.642	-3.79 S
15 TIRUCHIRAPALLI	-1529	284	0.631	-5.39 S
16 MADURAI-old	-882	88	0.854	-9.97 S
16 MADURAI-new	-372	202	0.629	-1.84 NS
17 ANNA	-616	276	0.713	-2.23 NS
18 KAMARAJAR	-342	164	0.593	-2.09 NS
19 T.THIRUMAHANAR	234	839	0.025	0.28 NS
20 THE NILGIRIS	-1097	88	0.901	-12.41 S
21 STATE	-11711	854	0.917	-13.72 S

Note: S and NS denote significant and not significant at 5%

Dharmapuri, (2) Coimbatore (new), (3) T.Thirumaganar, (4) Tirunelveli (new), and (5) Chidambaranar, but the positive trend was significant only in two districts viz., Dharmapuri and Coimbatore (new). As expected, the trend was negative and significant at the state level.

The size-wise distribution of cultivable waste land to total operated area in Tamil Nadu is shown the Table 9. The percentage of land under the cultivable waste has steadily increased with the increase in the size of operational holdings in 1970-71; the percentage of area of this land has increased with the increase in all size of holdings except the size classes of 30.0 - 40.0 ha. and above 50.0 ha in 1976-77; the percentage of area under this category has increased with the increase in the size of the holdings except the size of holdings 50.0 ha. and above in 1979-80; and in 1985-96, the area under this type of land has increased with the increase in the all size classes except 30.00 - 40.00 ha. The percentage of land under this class has increased from 1.95 per cent in 1970-71 to 2.31 per cent in 1976-77; decreased to 1.03 per cent in 1979-80 and to 0.39 per cent in 1985-86. Thus the data very clearly indicate that the small size holdings are more efficient in utilising the land than that of large size holding, as the percentage of area of cultivable waste land to total area operated by them is small. This, in fact, again calls for a reduction of ceiling on land holdings as the cultivable waste land appears to be minimum in the lower size class of operational holdings.

Table 9
**Distribution of cultivable waste land to total operated area
in Tamil Nadu (ha.)**

Size class	1970-71	1976-77	1979-80	1985-86
1) 0.0 - 0.5	4495 (1.00)	8755 (1.35)	5895 (0.72)	1123 (0.13)
2) 0.5 - 1.0	9861 (1.22)	12818 (1.34)	7945 (0.73)	2006 (0.17)
3) 1.0 - 2.0	22992 (1.49)	26140 (1.65)	13226 (0.77)	3813 (0.22)
4) 2.0 - 3.0	19379 (1.73)	19786 (1.77)	10211 (0.93)	3323 (0.31)
5) 3.0 - 4.0	14011 (1.82)	15523 (2.06)	7133 (0.99)	3218 (0.46)
6) 4.0 - 5.0	10779 (1.92)	12413 (2.23)	5265 (1.03)	2162 (0.45)
7) 5.0 - 7.5	---	21741 (2.80)	8697 (1.27)	3713 (0.55)
8) 7.5 - 10.0	28790* (2.18)	15085 (3.57)	5027 (1.39)	2522 (0.72)
9) 10.0 - 20.0	18743 (2.87)	20558 (4.16)	7452 (1.75)	3802 (0.90)
10) 20.0 - 30.0	6630 (4.22)	12159 (11.01)	2634 (2.54)	1387 (1.59)
11) 30.0 - 40.0	3171 (4.83)	3025 (8.17)	1028 (2.84)	156 (0.60)
12) 40.0 - 50.0	1849 (7.08)	3774 (22.84)	1349 (6.46)	264 (2.73)
13) Above 50.0	6499 (8.17)	3045 (3.23)	3354 (2.61)	2481 (2.74)
Total	146926 (1.95)	174822 (2.31)	79216 (1.03)	29970 (0.39)

* Size class 5.0 to 10.0

Note: Figures in brackets indicate the percentage of cultivable waste land to total operated area in each size class.

5. Permanent pastures and other grazing land

This represents all grazing lands whether they are permanent pastures and meadows or not. These lands are included in the arable land. It consists of both common and private land. Though it is meant for grazing, the land under this type has been encroached by the farmers to increase the income for the family. The distribution of permanent pastures and other grazing land could be seen from the Appendix 5. At the state level, 230658 ha or 1.8 per cent of the land was under this category in 1970-71 and it has declined to 127020 ha or 1 per cent in 1988-89. Regional level analysis shows that by and large the area classified as permanent pasture and other grazing land has declined in both inland and coastal region. But the decrease in the area was more in the case inland region than that of coastal region, as the area classified as permanent pasture and other grazing land has declined from 99853 ha. in 1970-71 to 57045 ha. in 1988-89 in the coastal region and from 130805 ha. in 1970-71 to 69975 ha. in 1988-89. It is expected that the extent of land classified as permanent pastures and other grazing land positively correlated with the livestock population. An examination has been made to study whether there is any relationship between the density of live stock population and the proportion of area under permanent pasture and other grazing land to the total geographical area (Table 10). In Chengalpattu district, the percentage at pasture and grazing land to total geographical area was highest (3.7 %) but the density of livestock population 201 per sq.km. While in Thanjavur district,

Table 10
Livestock population 1982

Districts	Percentage of pasture and grazing land to total geographical area *	Density of livestock population per sq.km.	Area in Sq.Km. (1981)	Livestock Population	Cattle, buffaloes, goat and sheep
1) Madras		522	170	88687	70373
2) Chengalpattu	3.7	201	7863	1583070	1481336
3) South Arcot	0.8	244	10895	2656352	2452904
4) North Arcot	0.8	198	12268	2435004	2313794
5) Salem	1.5	294	8650	2542950	2279085
6) Dharmapuri	1.2	187	9622	1796615	1677303
7) Periyar	0.5	218	8209	1793292	1627338
8) Coimbatore	0.3	166	7469	1237449	1112079
9) The Nilgiris	2.5	41	2549	104051	96189
10) Thanjavur	0.5	292	8280	2414208	2286485
11) Trichirapalli	2.4	234	11095	2599633	2429579
12) Pudukkottai	1.2	216	4661	1005085	953737
13) Madurai & Anna	0.6	167	13297	2222296	2100830
14) Ramanathapuram, Kamarajar and T.Thirumaganar	0.2	208	8491	1763549	1680064
15) Tirunelveli Kallabomman and Chidambaranar	1.9	112	15556	1741235	1625655
16) Kanyakumari	0.2	120	1684	202615	173697
Tamil Nadu	1.2	201	130058	26186091	24360448

Sources: 1. Annual Statistical Abstract of Tamilnadu, 1986-87
 Commissioner of Statistics, Government of Tamil Nadu, Madras
 1988 p.80
 * Appendix 5 (present paper)

the percentage of pasture and grazing land was only 0.5 per cent but the density of livestock population was significantly higher with 292 per sq.km. The data indicate that there was no relationship between the density of livestock population and the proportion of area under permanent pastures and other grazing land.

The expected sign of the coefficient of X for permanent pastures and other grazing land was in the negative direction. The observed sign was negative (Table 11) both at the state level and at the district level except in three district viz., (1) Dharmapuri, (2) Pudukottai and (3) Ramanathapuram (new) and the positive coefficient was significant only in Dharmapuri and Pudukottai.

6. Miscellaneous tree crops and groves not included in the net area sown:

This represents all cultivable land which is not included under net area sown but is put to agricultural uses. This type of land facilitates the farmers to cultivate annual plantation or tree crops viz., mangoes, coconut, casuarina, jack, plantain, guava, etc. A considerable proportion of orchards is sown with crops which contribute fairly to the total income of the farmers. The distribution of area of land used for miscellaneous tree crops and groves not included in the net area sown could be seen from Appendix 6. The area under this type of land has declined steadily due to population growth. At the state level the area of this class of land declined from 266448 ha or 1.7 per cent in 1970-71 to 119218 ha. or 0.9 per cent in 1988-89. At regional

Table:11 Linear trend analysis: Permanent pastures and other grazing land

	X Coef.	Std Err of Coef.	R Squaredt value	Level of Significance
1 MADRAS	-	-	-	-
2 CHENNAI	-1362	193	0.746	-7.06 S
3 SOUTH ARCOT	-206	32	0.704	-6.37 S
4 PUDUKOTTAI	40	16	0.299	2.53 S
5 THANJAVUR	-125	24	0.623	-5.3 S
6 RAMANATHAPURAM-old	-105	22	0.564	-4.69 S
7 RAMANATHAPURAM-new	16	9	0.5	1.73 NS
8 TIRUNELVELI-old	-621	101	0.692	-6.17 S
9 TIRUNELVELI-new	-1149	844	0.649	-1.36 NS
10 CHIDAMBARAMAR	-1766	1019	0.75	-1.73 NS
11 KANYAKUMARAI	-1	7	0.001	-0.14 NS
12 NORTH ARCOT	-565	99	0.658	-5.72 S
13 SALEM	-141	17	0.804	-8.35 S
14 DHARMAPURI	103	22	0.565	4.7 S
15 COIMBATORE-old	-883	84	0.867	-10.53 S
16 COIMBATORE-new	-53	10	0.79	-5.49 S
17 PERIYAR	-722	111	0.842	-6.53 S
18 TIRUCHIRAPPALI	-1619	121	0.913	-13.34 S
19 MADURAI-old	-389	51	0.776	-7.67 S
20 MADURAI-new	-76	20	0.876	-3.76 NS
21 ANNA	-112	64	0.6	-1.73 NS
22 KAMARAJAR	0	0	ERR	ERR
23 T. THIRUMAHANAR	-5	2	0.603	-2.13 NS
24 THE NILGIRIS	-139	35	484	-3.99 S
25 STATE	-5870	453	0.908	-12.94 S

Note: S and NS denote significant and not significant at 5%

level the land classified under this type has declined from 151357 ha. in 1970-71 to 68415 ha. in 1988-89 in the coastal region and from 75091 ha. in 1970-71 to 50803 ha. in 1988-89. Thus the data clearly show that the area of this type has declined in both the region but the decline was more in the coastal region. The main reason for the increase in the area under this type of land may be due to conversion of arable land into this type of land due to inadequate water supply; and the decline in the area of land under this type may be due to conversion of this type of land to cultivable area and land put to non agricultural uses.

The sign of the X coefficient for miscellaneous tree crops and groves not included in the net area sown was in the positive direction, as it is generally expected that the area under this type tends to increase along with increase in the growth of the population in order to meet the increased demand for fruits etc. But the sign was negative (Table 12) at the state level and at the district level except in (1) Salem, (2) Dharmapuri (3) T.Thirumaganar, (4) Tirunelveli (old) and new, but the positive sign was not significant in T.Thirumaganar and Tirunelveli (new).

The break up of the permanent pastures and other grazing land and the land under miscellaneous tree crops and groves not included in the net sown area is not available separately to investigate the size-wise distribution of these lands. Permanent pastures and other grazing lands include all grazing lands, whether they are permanent pastures and meadows or not. Village common grazing lands have been excluded for the purposes of

Table:1.2 Linear trend analysis: Land under miscellaneous tree crops and groves not included in the net area sown

	X Coef.	Std Err of Coef.	R Squared value	Level of Significance
1 MADRAS	-	-	-	-
2 CHENNAI	-1102	232	0.57	-4.74 S
3 SOUTH ARCOT	-670	206	0.383	-3.25 S
4 PUDUKOTTAI	-381	101	0.485	-3.76 S
5 THANJAVUR	-1376	134	0.861	-10.27 S
6 RAMANATHAPURAM-old	-199	96	0.203	-2.08 NS
6 RAMANATHAPURAM-new	-1478	466	0.77	-3.17 NS
7 TIRUNELVELI-old	447	212	0.208	2.11 S
7 TIRUNELVELI-new	434	57	0.983	7.59 NS
8 CHIDAMBARAMAR	-8450	6045	0.661	-1.4 NS
9 KANYAKUMARAI	-51	20	0.275	-2.54 S
10 NORTH ARCOT	-206	57	0.433	-3.61 S
11 SALEM	114	17	0.722	6.64 S
12 DHARMAPURI	289	70	0.498	4.1 S
13 COIMBATORE-old	-140	165	0.04	-0.85 NS
13 COIMBATORE-new	-641	179	0.614	-3.57 S
14 PERIYAR	-628	139	0.717	-4.51 S
15 TIRUCHIRAPALLI	-607	86	0.745	-7.05 S
16 MADURAI-old	-453	52	0.818	-8.73 S
16 MADURAI-new	-240	121	0.664	-1.98 NS
17 ANNA	-28	22	0.43	-1.22 NS
18 KAMARAJAR	-618	202	0.758	-3.07 NS
19 T. THIRUMAHANAR	5	53	0.003	0.09 NS
20 THE NILGIRIS	-408	56	0.758	-7.3 S
21 STATE	-5031	754	0.724	-6.68 S

Note: S and NS denote significant and not significant at 5%

agricultural census. Land under miscellaneous tree crops etc. includes all cultivable land which is not included in the net area sown but put to some agricultural use. Lands under casuarina trees thatching grasses bamboo bushes and other groves for fuel etc. which are not included under orchards have been included under this category. An examination has been made to analyze these two types under one title viz., other uncultivated land excluding fallow land. The distribution of other uncultivated land excluding fallow land to the total operated land is shown in Table 13. It could be seen from the table that the percentage of other uncultivated land excluding fallow land to the total operated area has increased with the increase in the size of operational holdings. The total area under this type of land to the total operated area has decreased from 1.53 per cent in 1970-71 to 0.74 per cent in 1976-77; it increased to or 0.97 per cent in 1979-80 and it decreased to or 0.37 per cent in 1985-86. The data again indicate that the large size holdings leave more land without cultivation than that of small size holdings. This in fact calls again for a reduction of ceiling on landholdings as the other uncultivated land excluding fallow land was minimum in the lower size of class operational holdings. The existence of vast area of this land gives a scope for further extension of cultivation in the future.

7. Current fallows

The area under current fallows represents the cropped area which are kept fallow during the year. Current fallows form a

Table 13
Distribution of other uncultivated land excluding fallow land to
total operated area in Tamilnadu (ha.)

Size class	1970-71	1976-77	1979-80	1985-86
1) 0.0 - 0.5	4875 (1.09)	6421 (0.99)	6084 (0.74)	984 (0.12)
2) 0.5 - 1.0	6463 (0.80)	6792 (0.71)	8683 (0.80)	1626 (0.23)
3) 1.0 - 2.0	13798 (0.90)	10139 (0.64)	14805 (0.87)	4368 (0.25)
4) 2.0 - 3.0	10954 (0.98)	7601 (0.68)	9089 (0.83)	3101 (0.29)
5) 3.0 - 4.0	8090 (1.05)	5200 (0.69)	6224 (0.86)	2184 (0.31)
6) 4.0 - 5.0	7149 (1.27)	3395 (0.61)	5089 (1.00)	1762 (0.37)
7) 5.0 - 7.5	-----	4892 (0.63)	7738 (1.13)	2646 (0.39)
8) 7.5 - 10.0	22618* (1.71)	3719 (0.88)	4804 (1.33)	2006 (0.56)
9) 10.0 - 20.0	21187 (3.29)	4992 (1.01)	6272 (1.47)	2640 (0.62)
10) 20.0 - 30.0	7509 (4.87)	486 (0.44)	2496 (2.41)	1148 (1.31)
11) 30.0 - 40.0	4813 (7.33)	570 (1.54)	739 (2.04)	162 (0.62)
12) 40.0 - 50.0	1767 (6.77)	312 (1.89)	460 (2.20)	233 (2.41)
13) Above 50.0	6444 (8.10)	1405 (1.49)	2519 (1.96)	5571 (6.15)
14) Total	115669 (1.53)	55924 (0.74)	75002 (0.97)	28431 (0.37)

* Size class 5.0 to 10.0

Note: Figures in brackets indicate the percentage of other uncultivated land excluding fallow land to total operated area in each size class.

part of the arable land. Therefore, area under current fallows is added to the area under net sown area to get the total cropped area. It could be seen from the Appendix 7 that the total area under this class of land has increased from 964640 ha. or 7.4 per cent of the total geographical area in 1970-71 to 154463 ha. or 11.9 per cent in 1988-89 at state level. Regional level data show that there was an increase in the area classified as current fallows in the inland region (from 572627 ha. in 1970-71 to 948777 ha. in 1988-89) and in the coastal region (from 392013 ha. in 1970-71 to 597686 ha. in 1988-89) but the rate of increase in current fallows was lower in the coastal region than that of the inland region. The reason for a very high percentage of current fallows to total geographical area may be mainly due to inadequate supply of water including rainfall for irrigation. This is well documented from the Table 14 that the actual rainfall was less than the normal rainfall and the level of rainfall was minimum in three years viz., 1974-75, 1980-81 and 1982-83 compared to the rest of the year. The area under this class of land (Appendix 7) was higher in 1974-75 at state level and at the district level except the Nilgiris and Dharmapuri districts, and again the area under this class was higher in 1980-81 at the state level and at the district level; and further the area under this class of land was higher in 1982-83 both at the state level and district level except in Kanyakumari district. Thus in a year of fairly sufficient level of rain, the percentage of current fallows decreases considerably whereas in a year of insufficient rain the area under such land increases suddenly. The area under current fallows may not decrease in the

Table 14
Distribution of rainfall by years in Tamil Nadu

Year	Rainfall	
	Normal	Actual
1970-71	945.7	918.1
1971-72	945.7	968.8
1972-73	945.7	992.3
1973-74	945.7	842.2
1974-75	945.7	647.4
1975-76	945.7	857.2
1976-77	945.7	941.4
1977-78	945.7	1123.7
1978-79	942.8	1091.3
1979-80	942.8	1091.3
1980-81	942.8	669.3
1981-82	942.8	952.7
1982-83	942.8	662.6
1983-84	942.8	1222.5
1984-85	942.8	791.4
1985-86	942.8	950.9
1986-87	945.7	700.9
1987-88*	945.0	982.8
1988-89**	-----	708.8

Source: Season and crop report of Tamil Nadu, 1985-86,
 Dept. of Statistics, Madras.

* Statistical handbook of Tamilnadu, 1988
 Dept. of Statistics. p.109

** Tamilnadu Economic Appraisal, 1989, p.101.

future due to insufficient water or rainfall for cultivation in Tamil Nadu, although it is stated that the area under current fallows is bound to decrease to a negligible level in the future due to increase in the growth of population. The sandy soil, inadequate water for irrigation and the hilly terrain must have compelled the farmers to leave the land uncultivated. It is in this respect, a study has to be undertaken to investigate as to what reasons these lands are kept fallow and who is leaving the land uncultivated. A study conducted by Nadkarni and Deshpande (1979) shows that the proportion of current fallows increases significantly with an increase in the size of operated area.

The expected direction of the sign of the trend for current fallows was in the negative. The observed coefficient (Table 15) was positive in majority of the districts except (1) Periyar, (2) Madurai (old and new), (3) Anna, (4) Ramanathapuram (old), (5) Kamarajar, (6) T.Thirumaganar, (7) Tirunelveli (new) and (8) Chidambaranar, but the trend was not significant. The χ^2 coefficient was positive and significant at the state level. It is quite contrary to what was expected.

The sizewise distribution of area under current fallows to total operated area could be seen from the Table 16. The area under this type of land has increased with the increase in the size of operational holdings. The positive relationship between the size class and the percentage of current fallows was very high upto 1979-80; but this relationship was not so high in 1985-86. This was due to large scale shift of land from the larger

Table:15 Linear trend analysis: Area under current fallows

	X Coef.	Std Err of Coef.	R Squared	t value	Level of Signifi- cance
1 MADRAS	..	-	-	-	-
2 CHENNAI PUT	4562	920	0.59	4.96 S	
3 SOUTH ARCOT	3608	1578	0.24	2.29 S	
4 PUDUKOTTAI	1774	1118	0.14	1.59 NS	
5 THANJAVUR	1453	506	0.33	2.87 S	
6 RAMANATHAPURAM-old	-788	2410	0.01	-0.33 NS	
6 RAMANATHAPURAM-new	2261	3427	0.13	0.66 NS	
7 TIRUNELVELI-old	2877	1347	0.21	2.14 S	
7 TIRUNELVELI-new	-29692	14449	0.81	-2.05 NS	
8 CHIDAMBARAMAR	-7599	2605	0.89	-2.92 NS	
9 KANYAKUMARAI	68	66	0.06	1.03 NS	
10 NORTH ARCOT	4938	1104	0.54	4.47 S	
11 SALEM	1199	1133	0.06	1.06 NS	
12 DHARMAPURI	542	1355	0.01	0.4 NS	
13 COIMBATORE-old	5986	1826	0.39	3.28 S	
13 COIMBATORE-new	1347	1319	0.12	1.02 NS	
14 PERIYAR	-2629	2042	0.17	-1.29 NS	
15 TIRUCHIRAPALI.I	5576	1987	0.49	4.02 S	
16 MADURAI-old	-219	1993	0.001	-0.11 NS	
16 MADURAI-new	-6958	4650	0.53	-1.5 NS	
17 ANNA	-18354	22104	0.26	-0.83 NS	
18 KAMARAJAR	-11792	10046	0.31	-1.17 NS	
19 T.THIRUMAHANAR	-4982	4934	0.25	-1.01 NS	
20 THE NJL.GIRIS	768	133	0.66	5.76 S	
21 STATE	33863	12825	0.29	2.64 S	

Note: S and NS denote significant and not significant at 5%

Table 16
Distribution of area under current fallows to total operated area
in Tamil Nadu (ha.)

	Size class	1970-71	1976-77	1979-80	1985-86
1)	0.0 - 0.5	50275 (11.22)	97022 (14.96)	111934 (13.62)	215720 (25.26)
2)	0.5 - 1.0	93673 (11.62)	154967 (16.20)	152375 (14.05)	284571 (24.52)
3)	1.0 - 2.0	199968 (12.98)	278508 (17.58)	261513 (15.30)	446132 (25.20)
4)	2.0 - 3.0	150376 (13.43)	206910 (18.51)	180007 (16.34)	283185 (26.33)
5)	3.0 - 4.0	106512 (13.76)	146421 (19.43)	125045 (17.36)	192825 (27.52)
6)	4.0 - 5.0	80758 (14.36)	115891 (20.82)	95195 (18.66)	136223 (28.57)
7)	5.0 - 7.5	----	169111 (21.78)	147004 (21.49)	202231 (29.93)
8)	7.5 - 10	209861* (15.89)	98285 (23.26)	85026 (23.56)	111992 (32.15)
9)	10.0 - 20.0	125002 (19.39)	141992 (28.53)	117227 (27.57)	138791 (32.74)
10)	20.0 - 30.0	35624 (22.69)	33894 (30.69)	28525 (27.51)	28125 (32.19)
11)	30.0 - 40.0	15751 (23.99)	13343 (36.04)	11766 (32.56)	7729 (29.74)
12)	40.0 - 50.0	6003 (23.00)	4332 (26.22)	5074 (24.30)	3546 (36.62)
13)	Above 50.0	12010 (15.10)	27544 (29.22)	27279 (21.26)	20540 (22.66)
14)	Total	1085814 (14.40)	1487220 (19.65)	1347970 (17.49)	2071610 (26.91)

* Size class 5.0 to 10.0

Note: Figures in brackets indicate current fallows to total operated area in each size class.

size class of landholdings to the smaller size holdings in 1985-86. The total area of this land has increased from 1085814 ha. or 14.40 per cent of the total operated area in 1970-71 to 2071610 ha. or 26.91 per cent in 1985-86. Thus the data clearly show that the land left without cultivation by the farmers was more in the case of large farmers than that of the small farmers and the land under this type without cultivation has increased over a period of time. This in fact calls for a reduction of ceiling on landholdings as the area under the current fallows was minimum in the lower size class of operational holdings.

8. Other fallow lands

This represents lands which are taken up for cultivation but are temporarily out of cultivation for a period of not less than one year and not more than five years. The lands classified under other fallows are definitely cultivable. These lands are left without cultivation by the farmers due to poverty, lack of irrigation, inadequate rainfall, weeds, etc. At the state level, the area of this land has fluctuated over a period of 19 years (Appendix 8.) The area under this type of land was 895074 ha. which accounted for 6.9 per cent of the geographical area in 1988-89 in Tamil Nadu. The district level data also mainly show that the area under this category fluctuated over a period of 19 years. The highest percentage of this land is noticed in T.Thirumaganar which accounted for about 26 per cent followed by Kamarajar and Tirunelveli districts and accounted for 21 per cent and 20 per cent respectively. The regional level analysis shows that 3 out of 9 districts viz., South Arcot, Chidambaranar and

Kanyakumari in the coastal region and 3 out of 11 districts viz., Salem, Coimbatore and Tiruchirapalli in the inland region, the area classified as other fallows has declined. The area classified as other fallows has increased from 292220 ha. in 1970-71 to 360498 ha. in 1988-89 in the coastal region and 280742 ha. in 1970-71 to 534576 ha. in 1988-89 in the inland region. Thus the data very clearly show that the rate of increase in the other fallows was more in the case of inland region than that of the coastal region.

As far as the area of land under other fallows is concerned, the expected direction of the trend was negative. This is mainly in response to population explosion. The trend analysis (Table 17) shows that, at the district level, the trend was negative only in (1) Chingleput, (2) South Arcot, (3) Coimbatore (old) (4) Madurai (new) (5) Ramanathapuram (new) and (6) Chidambaranar but the trend was found to be not significant. At the state level, the trend was positive and significant. This is contrary to the expected direction of the trend. A comparison of data related to other fallow lands with rainfall indicates that the other fallow lands continue to persist irrespective of rainfall. However in a year of sufficient rainfall (i.e. more than normal rainfall) the other fallow lands had declined and in a year of insufficient rain the lands under this type had increased.

If we remove the obstacles which make the land unfit for cultivation, these lands can be cultivated. These lands can be brought under cultivation by applying manures, irrigation

Table:17 Linear trend analysis: Other fallow lands

	X Coef.	Sid Err of Coef.	R Squared	t value	Level of Significance
1 MADRAS	-	-	-	-	-
2 CHENNAI	-137	394	0.007	-0.35	NS
3 SOUTH ARCOT	-106	262	0.01	-0.41	NS
4 PUDUKKOTTAI	1208	305	0.51	3.95	S
5 THANJAVUR	86	214	0.009	0.4	NS
6 RAMANATHAPURAM-old	9778	1373	0.749	7.12	S
6 RAMANATHAPURAM-new	-1566	1914	0.183	-0.82	NS
7 TIRUNELVELI-old	537	940	0.019	0.57	NS
7 TIRUNELVELI-new	15002	2707	0.968	5.54	NS
8 CHIDAMBARAMAR	-2518	456	0.968	-5.52	NS
9 KANYAKUMARAI	24	19	0.084	1.25	NS
10 NORTH ARCOT	272	496	0.017	0.55	NS
11 SALEM	367	257	0.107	1.43	NS
12 DHARMAPURI	794	149	0.625	5.32	S
13 COIMBATORE-old	-517	338	0.022	-0.62	NS
13 COIMBATORE-new	593	480	0.16	1.24	NS
14 PERIYAR	3263	1682	0.32	1.94	NS
15 TIRUCHIRAPALLI	894	866	0.059	1.03	NS
16 MADURAI-old	3069	1261	0.258	2.43	S
16 MADURAI-new	-5810	3003	0.652	-1.93	NS
17 ANNA	17281	15681	0.378	1.1	NS
18 KAMARAJAR	11426	12276	0.224	0.93	NS
19 T. THIRUMAKANAR	5676	1816	0.765	3.13	NS
20 THE NILGIRIS	51	54	0.049	0.94	NS
21 STATE	16794	5274	0.374	3.18	S

Note: S and NS denote significant and not significant at 5%

facilities and reclamation of land. The existence of this type of land provides a greater scope for increasing the area for cultivation.

The size-wise distribution of fallow lands other than current fallows to the total operated area is shown in the Table 18. It could be seen from the table that the extent of fallow lands other than current fallows to total operated area has increased significantly with the increase in the size of operational holdings in 1970-71, 1976-77 and 1979-80; whereas in 1985-86 the share of fallow land other than current fallows has increased with the increase in the size of holdings upto 20.00 ha. and thereafter it declined with the increase in the size of landholdings. The total area under this type of land has declined from 223048 ha. or 2.96 per cent in 1970-71 to 83550 ha. or 1.10 per cent in 1976-77 and further to 71601 ha. or 0.93 per cent in 1979-80 and again declined to 19266 ha. or 0.25 per cent in 1985-86. Thus the data clearly indicate that the area under this class of land started declining due to large scale transfer of land from the larger size of holdings to the smaller holdings and subdivision of land among the family members due to increase in the growth of population.

9. Net sown area

This represents the net area sown with crops in any particular year. The net sown area depends on surface condition, fertility of soil, irrigation including rainfall and

Table 18

Distribution of fallow lands other than current fallows to total operated area in Tamil Nadu (ha.)

Size class	1970-71	1976-77	1979-80	1985-86
1) 0.0 - 0.5	5373 (1.20)	6356 (0.98)	5035 (0.61)	1140 (0.13)
2) 0.5 - 1.0	13468 (1.67)	8801 (0.92)	8083 (0.75)	1840 (0.15)
3) 1.0 - 2.0	33487 (2.17)	17743 (1.12)	12146 (0.71)	3431 (0.19)
4) 2.0 - 3.0	28914 (2.58)	11290 (1.01)	8682 (0.79)	2381 (0.22)
5) 3.0 - 4.0	22665 (2.94)	7084 (0.94)	5105 (0.71)	1504 (0.21)
6) 4.0 - 5.0	17656 (3.14)	5622 (1.01)	4762 (0.93)	1571 (0.33)
7) 5.0 - 7.5	---	8690 (1.12)	7514 (1.10)	2600 (0.38)
8) 7.5 - 10.0	46757* (3.54)	5197 (1.23)	5646 (1.56)	1478 (0.42)
9) 10.0 - 20.0	30132 (4.67)	6523 (1.32)	8140 (1.91)	2728 (0.64)
10) 20.0 - 30.0	10655 (6.79)	2132 (1.93)	2328 (2.25)	480 (0.55)
11) 30.0 - 40.0	5477 (8.34)	463 (1.25)	710 (1.96)	16 (0.06)
12) 40.0 - 50.0	2295 (8.79)	175 (1.06)	734 (3.51)	4 (0.04)
13) Above 50.0	6170 (7.76)	3468 (3.68)	2716 (2.12)	93 (0.10)
14) Total	223048 (2.96)	83550 (1.10)	71601 (0.93)	19266 (0.25)

* Size class 5.0 to 10.0

Note: Figures in brackets indicate percentage of fallow lands other than current fallows to total operated area in each size class.

technological development. The net sown area is considered as an index to measure economic development. It could be seen from the Appendix 9 that the net sown area never exceeded 50 per cent of the total geographical area at the state level. The net sown area was only 42.6 per cent at the state level in 1988-89. At the regional level, 3 out of 11 districts in the inland region and 2 out of 9 districts in the coastal region, the area classified as net area sown has declined. The data also show that the net area sown has declined from 2699942 ha. in 1970-71 to 2193701 ha. in 1988-89 in the coastal and from 3469231 ha. in 1970-71 to 3352954 ha. in 1988-89 in the inland region. Thus the data clearly indicate that though there was a decline in the net area sown in both the region but the decline was less for the inland region than that of the coastal region. The district level data also show that among all districts the net sown area exceeded more than 50 per cent in South Arcot, Tiruchirapalli, Thanjavur, Chidambaranar, and Kanyakumari over a period two decades. The high population density (Table 4), the high percentage irrigated area (Table 7) and rainfall (Table 14) appear to be responsible for the highest percentage of net sown area. The low percentage of this type of land was noticed in Tirunelveli, T.Thirumaganar and the Nilgiris districts. The other fallow land, cultivable waste and the area of land under forest were responsible for low percentage of net area sown. On the whole the net sown area has fluctuated but has not increased. The land under this category has not responded to the growth of population. Since the use of this land never exceeded 50 per cent of geographical area, there is a scope for further expansion

in the area of land under cultivation.

The expected sign of the trend was positive. This is mainly because vast area of land to be brought under cultivation to meet the basic needs consequent to increase in the population. But the trend analysis (Table 19) shows that the trend was positive only in 8 districts viz., (1) Periyar, (2) Madurai (new) (3) Anna, (4) Ramanathapuram (new), (5) Kamarajar (6) Tirunelveli (new) (7) Chidambaranar and (8) The Nilgiris, but the positive trend was significant only in the Nilgiris district. The trend analysis also shows that there was a negative and significant development at the state level. The main reason for the negative development in the net area was mainly due to increase in the area of land under current fallows and other fallows.

The size-wise distribution of net sown area to the total operated area is shown in the Table 20. The area under this class of land has decreased with the increase in the size of operational holdings. The net sown area has declined from 6020396 ha. or 78.11 per cent of the total geographical area in 1979-80 to 5511035 ha. or 71.58 per cent in 1985-86. Thus the data clearly show that the percentage of net sown area to the total operated area by the small farmers was more than that of the large farmers. The data indicate that the ceiling on land holdings has to be reduced as the net sown area was higher in the lower size class of operational holdings.

Table:19 Linear trend analysis: Net area sown

	X Coef.	Std Err of Coef.	R Squared	t value	Level of Signifi- cance
1 MADRAS	-	-	-	-	-
2 CHENNAI	-4030	1065	0.457	-3.78 S	
3 SOUTH ARCOT	-1811	1606	0.07	-1.13 NS	
4 PUDUKOTTAI	-1281	1008	0.097	-1.27 NS	
5 THANJAVUR	-3914	881	0.537	-4.44 S	
6 RAMANATHAPURAM-old	-6205	1896	0.387	-3.27 S	
6 RAMANATHAPURAM-new	1215	4294	0.026	0.28 NS	
7 TIRUNELVELI-old	-5282	1403	0.454	-3.76 S	
7 TIRUNELVELI-new	14395	13177	0.544	1.09 NS	
8 CHIDAMBARAMAR	19014	6924	0.883	2.75 NS	
9 KANYAKUMARAI	-127	23	0.121	-1.53 NS	
10 NORTH ARCOT	-5929	1452	0.495	-4.08 S	
11 SALEM	-1045	1104	0.05	-0.95 NS	
12 DHARMAPURI	-36	1374	0.00004	-0.03 NS	
13 COIMBATORE-old	-4304	1276	0.401	-3.37 S	
13 COIMBATORE-new	-2455	1233	0.331	-1.99 NS	
14 PERIYAR	93	1824	0.0003	0.05 NS	
15 TIRUCHIRAPPALI	-8986	2137	0.51	-4.21 S	
16 MADURAI-old	-2613	1237	0.208	-2.11 S	
16 MADURAI-new	14248	6704	0.693	2.13 NS	
17 ANNA	709	13428	0.001	0.05 NS	
18 KAMARAJAR	571	4530	0.005	0.13 NS	
19 T.THIRUMARANAR	-693	5378	0.006	-0.13 NS	
20 THE NILGIRIS	618	136	0.549	4.55 S	
21 STATE	-38987	11353	0.41	-3.43 S	

Note: S and NS denote significant and not significant at 5%

Table 20

Distribution of net sown area to total operated area in Tamil Nadu
(ha)

	Size class	1970-71	1976-77	1979-80	1985-86
1)	0.0 - 0.5	375727 (83.83)	525322 (81.00)	680001 (82.69)	631988 (74.02)
2)	0.5 - 1.0	670134 (83.15)	766802 (80.16)	891830 (82.26)	865784 (74.60)
3)	1.0 - 2.0	1245164 (80.84)	1240771 (78.32)	1386521 (81.08)	1303895 (73.64)
4)	2.0 - 3.0	891540 (79.64)	864194 (77.31)	875787 (79.56)	777629 (72.31)
5)	3.0 - 4.0	607701 (78.71)	574005 (76.17)	567117 (78.68)	497097 (70.95)
6)	4.0 - 5.0	436056 (77.55)	414803 (74.52)	393991 (77.21)	332555 (69.75)
7)	5.0 - 7.5	989166* (74.88)	556335 (72.81)	504050 (73.68)	460710 (68.18)
8)	7.5 - 10.0	-----	296756 (70.23)	253860 (70.32)	228465 (65.58)
9)	10.0 - 20.0	436936 (67.76)	312177 (63.17)	277606 (65.26)	272371 (64.26)
10)	20.0 - 30.0	92340 (58.81)	60101 (54.42)	65823 (63.49)	55761 (63.82)
11)	30.0 - 40.0	34576 (52.66)	19178 (51.80)	21165 (58.56)	17696 (68.08)
12)	40.0 - 50.0	12810 (49.07)	7717 (46.71)	12610 (60.39)	5532 (57.13)
13)	Above 50.0	36917 (46.40)	54795 (58.13)	90040 (70.17)	61552 (67.91)
14)	Total	5829066 (77.28)	5701956 (75.34)	6020396 (78.11)	5511035 (71.58)

* Size class 5.0 to 10.0

Note: Figures in brackets indicate the net sown area to total operated area in each size class.

10. Area sown more than once

The area sown more than once is an index to calculate the agricultural development. The agricultural development is positively associated with the increase in the area sown more than once. The area sown more than once has declined in 1988-89 as compared to 1970-71 at the state level (Appendix 10) which accounted for 9.3 per cent of the total geographical area in 1970-71 and has declined to 6.9 per cent in 1988-89. The regional level analysis shows that except the Chidambaranar district in the coastal region and Salem, Dharmapuri, Anna and the Nilgiris districts in the inland region, the area sown more than once has declined in Tamil Nadu. On the whole, the area sown more than once has declined to 496235 ha. in 1988-89 from 688632 ha. in 1970-71 in the coastal region and to 408080 ha. in 1988-89 from 526201 ha. in 1970-71 in the inland region. Thus the data clearly show that area sown more than once has declined in both the region but the decline was less in the inland region than that of the coastal region. The main reason for the highest percentage of these lands was due to increase in the pressure of population to meet the food items, and the availability of water for irrigation (Table 7). It is worthwhile to mention that 44.9 per cent of the total land was put to cultivation more than once in Thanjavur in 1984-85. The year to year fluctuations in the area sown more than once have been a noticeable feature of land use pattern in Tamil nadu. The main reason for decrease in the area sown more than once was may be due to inadequate supply of water including rainfall for

cultivation and late release of water from irrigation tanks for cultivation.

As far as the net sown area is concerned, the expected trend of the X coefficient was positive. The district wise linear trend analysis (Table 21) show that the X coefficients were positive only in 8 districts viz., (1) South Arcot, (2) Salem, (3) Madurai (new), (4) Anna, (5) Ramanathapuram (new), (6) Tirunelveli (new), (7) Chidambaranar and (8) The Nilgiris. But the positive trend was significant only in Salem district. The trend analysis also shows that the observed trend was negative and significant at the state level.

1.1. Total cropped area

The distribution of total cropped area over a period of two decades at the district level, regional level and state level is shown in Appendix 11. Though year to year fluctuation has been a noticeable feature of the data, the total cropped area is on the decrease at the state level. Regional level analysis shows that the area classified as total cropped area has declined from 3388574 ha. in 1970-71 to 268936 ha. in 1988-89 in the coastal region and from 3995432 ha. in 1970-71 to 3761023 ha. in 1988-89 in the inland region. Thus the data very clearly indicate that the decrease in the total cropped area was more in the coastal region than that of the inland region. At the district level, the total cropped area fluctuated in all districts. There was not much change in the total cropped area in three districts, viz., Dharmapuri, Thanjavur and Madurai. A very high percentage

Table:21 Linear trend analysis: Area sown more than once

	X Coef.	Std Err of Coef.	R Squared	t value	Level of Signifi- cance
1 MADRAS	-	-	-	-	-
2 CHENNAI-PUT	-4017	1040	0.468	-3.86 S	
3 SOUTH ARCOT	711	1297	0.017	0.55 NS	
4 PUDUKOTTAI	-32	197	0.002	-0.16 NS	
5 THANJAVUR	-3961	1962	0.193	-2.02 NS	
6 RAMANATHAPURAM-old	-795	358	0.225	-2.22 S	
6 RAMANATHAPURAM-new	266	84	0.771	3.18 NS	
7 TIRUNELVELI-old	-2271	634	0.43	-3.58 S	
7 TIRUNELVELI-new	3744	1840	0.805	2.03 NS	
8 CHIDAMBARAMAR	4576	4772	0.479	0.96 NS	
9 KANYAKKUMARAI	-1057	191	0.644	-5.55 S	
10 NORTH ARCOT	-4083	1358	0.347	-3.01 S	
11 SALEM	2077	694	0.345	2.99 S	
12 DHARMAPURI	-546	856	0.023	-0.64 NS	
13 COIMBATORE-old	-2746	925	0.341	-2.97 S	
13 COIMBATORE-new	-18	1845	0.000012	-0.01 NS	
14 PERIYAR	-4973	1672	0.525	-2.97 NS	
15 TIRUCHIRAPALI	-3081	520	0.674	-5.92 S	
16 MADURAI-old	-1722	525	0.388	-3.28 S	
16 MADURAI-new	5237	7580	0.193	0.69 NS	
17 ANNA	506	541	0.304	0.94 NS	
18 KAMARAJAR	-567	1495	0.046	-0.38 NS	
19 T.THIRUMAHANAR	-429	254	0.487	-1.69 NS	
20 THE NILGIRIS	57	39	0.112	1.46 NS	
21 STATE	-21043	7256	0.331	-2.9 S	

Note: S and NS denote significant and not significant at 5%

of the total cropped area was noticeable in Thanjavur district. The main reason for the very high percentage of this land in Thanjavur was due to high population density and high percentage of area irrigated; very low percentage of this area was noticeable in T.Thirumaganar with 25.7 per cent and Tirunelveli with 27.4 per cent in 1988-89. The total cropped area was 27.5 per cent in the Nilgiris in 1988-89. The main reason for the low percentage of this area in the Nilgiris district was due to the predominance of hilly terrain. However, the total cropped area depends upon availability of water for cultivation. The main reason for the low percentage of this area is mainly due to inadequate supply of water including rainfall for cultivation.

The desired direction of the sign was positive for the total cropped area. This is mainly due to increase in the basic needs consequent to rapid growth of population. The sign of the trend (Table 22) was found to be positive only in 8 districts viz., (1) Salem, (2) Madurai(new) (3) Anna, (4) Ramanathapuram (new) (5) Kamarajar (6) Tirunelveli (new) (7) Chidambaranar, and (8) The Nilgiris, but the positive trend was significant only in the Nilgiris district. The observed trend at the state level was negative and significant.

Location coefficients

Location coefficient is one of the techniques to measure the degree of concentration of land use pattern at district or regional level. The location coefficients has been calculated for three points in time viz., 1970-71 1979-80 and 1988-89.

Table:22 Linear trend analysis: Total cropped area.

	X Coef.	Std Err of Coef.	R Squaredt value	Level of Significance
1 MADRAS	-	-	-	-
2 CHENNAI	-7784	2116	0.443	-3.68 S
3 SOUTH ARCOT	-1170	2605	0.012	-0.45 NS
4 PUDUKOTTAI	-1314	1149	0.08	-1.14 NS
5 THANJAVUR	-7875	2244	0.42	-3.51 S
6 RAMANATHAPURAM-old	-7000	2117	0.391	-3.31 S
6 RAMANATHAPURAM-new	1481	4342	0.037	0.34 NS
7 TIRUNELVELI-old	-7553	1843	0.497	-4.1 S
7 TIRUNELVELI-new	18138	15016	0.593	1.21 NS
8 CHIDAMBARAM	23585	11699	0.803	2.02 NS
9 KANYAKUMARAI	-1184	246	0.577	-4.82 S
10 NORTH ARCOT	-10011	2710	0.445	-3.69 S
11 SALEM	1032	1611	0.024	0.64 NS
12 DHARMAPURI	-582	1459	0.009	-0.4 NS
13 COIMBATORE-old	-7045	1957	0.432	-3.6 S
13 COIMBATORE-new	-2473	2564	0.104	-0.96 NS
14 PERIYAR	-4880	3287	0.216	-1.48 NS
15 TIRUCHIRAPALLI	-12067	2208	0.637	-5.47 S
16 MADURAI-old	-4336	1483	0.334	-2.92 S
16 MADURAI-new	19485	7752	0.76	2.51 NS
17 ANNA	1215	12976	0.004	0.09 NS
18 KAMARAJAR	4	5779	0	0 NS
19 T.THIRUMAHANAR	-1122	5456	0.014	-0.21 NS
20 THE NILGIRIS	649	166	0.473	3.91 S
21 STATE	-60030	17488	0.409	-3.43 S

Note: S and NS denote significant and not significant at 5%

Table : 23

Minimum and Maximum Location Coefficients of the land use pattern by districts: 1970-71, 1979-80, 1988-89

		1970-71		1979-80		1988-89	
		District	Location Coefficient	District	Location Coefficient	District	Location Coefficient
1. Forest Area	Maximum	The Nilgiris	2.76	The Nilgiris	3.60	The Nilgiris	3.40
	Minimum	Thanjavur	0.10	Thanjavur	0.09	Ramnathapuram(new)	0.07
2. Barren and Uncultivable land	Maximum	South Arcot	2.25	South Arcot	2.48	South Arcot	2.10
	Minimum	Coimbatore	0.50	Periyar	0.20	T.Thirumaganar	0.21
3. Land put to non Agricultural uses	Maximum	Madras	8.77	Madras	7.58	Madras	7.01
	Minimum	The Nilgiris	0.40	The Nilgiris	0.27	The Nilgiris	0.25
4. Cultivable waste	Maximum	The Nilgiris	2.18	Tirunelveli	2.00	Tirunelveli (new)	2.64
	Minimum	Dharmapuri	0.21	Kanyakumari & Coimbatore	0.12	Kanyakumari	0.05
5. Permanent pastures & other grazing land	Maximum	Chingleput	3.20	Chingleput	3.00	Chingleput	3.20
	Minimum	Ramanathapuram	0.22	Ramanathapuram	0.17	Periyar	0.10
6. Land under miscellaneous tree crops and groves not included in the net sown area	Maximum	Chingleput	3.06	South Arcot	3.20	South Arcot	3.22
	Minimum	Salem, Madurai; Coimbatore, Kanyakumari	0.24	Kanyakumari	0.13	Ramanathapuram (new) & Kamarajar	0.00
7. Area under current fallows	Maximum	Ramanathapuram	1.66	Periyar	1.77	Ramanathapuram(new)	1.85
	Minimum	Kanyakumari	0.14	Kanyakumari	0.15	Kanyakumari	0.04
8. Other fallow land	Maximum	Tirunelveli	2.57	Tirunelveli	2.79	T.Thirumaganar	3.69
	Minimum	Kanyakumari	0.18	Kanyakumari	0.09	Kanyakumari	0.09
9. Net area sown	Maximum	Thanjavur	1.33	Thanjavur	1.42	Thanjavur	1.52
	Minimum	The Nilgiris	0.45	The Nilgiris	0.48	Tirunelveli (new)	0.49
10. Area sown more than once	Maximum	Thanjavur	2.99	Thanjavur	3.58	Thanjavur	4.13
	Minimum	The Nilgiris	0.01	The Nilgiris	0.11	T.Thirumaganar	Negligible
11. Total cropped area	Maximum	Thanjavur	1.60	Thanjavur	1.84	Thanjavur	1.88
	Minimum	The Nilgiris	0.38	The Nilgiris	0.41	T.Thirumaganar	0.52

As far as forest area is concerned, the location coefficient (LCi) was highest (Table 23) in the Nilgiris district, a hilly terrain, with 2.76 and least in Thanjavur district, the most fertile and irrigated tract, with 0.10 in 1970-71. The position with respect to maximum and minimum location coefficients remained the same in 1979-80; but 1988-89, the Ramanathapuram (new) happened to be the least concentrated, while the Nilgiris district continued to be the highest concentration in the area under forest. Similarly the South Arcot, Madras and Chingleput have accounted for highest location coefficient for barren and uncultivated land; land put to non-agricultural uses; and land under permanent pastures and other grazing land in 1970-71, 1979-80 and 1988-89, but the districts get fluctuated as they move from one point of time to another with respect to minimum location coefficients. Thanjavur district alone has represented for the highest concentration in the net area sown, area sown more than once and total cropped area in 1970-71, 1979-80 and 1988-89. The value of location coefficients also increased over the period of time. This confirms that in the most fertile and irrigated region, the concentration of the net area sown, area sown more than once and the total cropped area will be the highest. The concentration of land put to non-agricultural uses was minimum in the Nilgiris district in all the three points in time, this again confirms that the location coefficient will be minimum in the hilly terrain. The concentration of area under current fallows and other fallows was minimum in Kanyakumari district for all the three points in time. The change in the location coefficients with respect to maximum and minimum,

clearly indicate the pattern of land use pattern was not consistant.

The results of the study indicate that there is a greater scope for further extension of area of land for cultivation, as the existence of vast area of land under the use of cultivable waste, permanent pastures and grazing lands, miscellaneous tree crops and groves, current fallows and other fallows which can be brought under cultivation in Tamil Nadu. These lands can be reclaimed and used for cultivation by applying scientific methods. More than half of the geographical area is unsown and it is not true to say that there is no scope for further extension of land for cultivation. The prevalence of landlordism or largeholdings has been responsible for the high percentage of land uncultivated as the high percentage of land is not available for cultivation in the higher size of operational holdings. The percentage of area of land under the cultivable waste, permanent pastures and other grazing lands, land under miscellaneous tree crops and groves, current fallows and other fallows was higher in the large size holdings and the percentage of area of land under the net sown area was high in the small size holdings than that of the large size holdings. This suggests that there is a need for reduction of ceiling on landholdings for proper and efficient utilisation of land and it is sufficient for technological upgrading and improved profitability of farming. It is disheartening to note that the uncultivated area is also found even in the irrigated region. Effort should be made to redistribute the waste land to the landless and to reclaim the

current fallow lands and other fallow lands. Studies have to be conducted at the micro level as to know who is leaving the land uncultivated whether the resident owner, non resident owner, absentee landlord or tenant leave the land uncultivated.

APPENDIX 1: FOREST AREA (ha.)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	33734	35075	36055	36055	36055	43150	42789	42652	42553	42547
	(4.1)	(4.3)	(4.3)	(4.4)	(4.4)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)
3 SOUTH ARCOT	64179	64179	64179	64179	52819	52819	51668	50602	50602	50264
	(5.9)	(5.9)	(5.9)	(5.9)	(4.8)	(4.8)	(4.7)	(4.6)	(4.6)	(4.5)
4 NORTH ARCOT	318887	318887	318887	318887	318887	318888	318888	318887	318887	318887
	(25.9)	(25.9)	(25.9)	(25.9)	(25.9)	(25.9)	(25.9)	(25.9)	(25.9)	(25.9)
5 SALEM	166906	157562	157248	157248	157248	157248	157248	155570	167129	167129
	(19.4)	(18.3)	(18.2)	(18.2)	(18.2)	(18.2)	(18.3)	(18.1)	(19.4)	(19.4)
6 DHARMAPURI	317294	317294	317294	317294	317294	317294	317294	326318	326318	326318
	(33.3)	(33.0)	(33.0)	(33.0)	(33.0)	(32.9)	(32.9)	(33.9)	(33.9)	(33.9)
7 COIMBATORE-old	404558	404559	404493	403757	388600	388534	388534	388535	388535	388534
	(25.9)	(25.9)	(25.9)	(25.9)	(24.7)	(24.8)	(25.4)	(24.7)	(24.7)	(24.7)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	155770
	0	0	0	0	0	0	0	0	0	(20.8)
8 PERIYAR	0	0	0	0	0	0	0	0	0	232764
	0	0	0	0	0	0	0	0	0	(28.2)
9 TIRUCHIRAPALLI	97009	101722	78176	77973	77974	77974	77526	77384	59025	55391
	(6.8)	(7.1)	(7.0)	(7.0)	(7.0)	(7.0)	(7.0)	(6.9)	(5.3)	(5.0)
10 PUDUKKOTTAI	0	0	25730	25036	25284	25284	23999	23999	23999	23999
	0	0	(5.5)	(5.4)	(5.4)	(5.4)	(5.1)	(5.1)	(5.2)	(5.1)
11 THANJAVUR	14112	14110	11844	10619	10619	10451	10451	10519	11288	11620
	(1.5)	(1.5)	(1.4)	(1.3)	(1.3)	(1.3)	(1.3)	(1.3)	(1.4)	(1.4)
12 MADURAI-old	260022	260022	260022	260022	240472	240473	240362	253772	262806	253560
	(20.6)	(20.6)	(20.6)	(20.6)	(19.0)	(19.1)	(19.0)	(20.0)	(20.8)	(20.0)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	45413	43868	43841	43660	47831	47831	47568	47568	47568	48193
	(3.7)	(3.5)	(3.5)	(3.5)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.9)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 T. THIRUMAHANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	133631	132241	132241	132488	133524	132676	133687	133684	136249	136994
	(11.7)	(11.6)	(11.6)	(11.6)	(11.7)	(11.6)	(11.7)	(11.7)	(11.9)	(12.0)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIDAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	108831	108831	108831	108831	108831	108831	139237	139236	141040	143425
	(42.8)	(42.8)	(42.7)	(42.8)	(42.8)	(42.8)	(54.7)	(54.7)	(55.4)	(56.2)
20 KANYAKUMARAI	48430	48956	48739	52386	50746	50539	51281	54611	54707	54644
	(29.0)	(29.3)	(29.2)	(31.4)	(30.4)	(30.3)	(30.7)	(32.7)	(32.7)	(32.7)
21 STATE	2013006	2007306	2007580	2008435	1966184	1971992	2000532	2023337	2030686	2021555
	(15.5)	(15.4)	(15.4)	(15.5)	(15.1)	(15.2)	(15.4)	(15.6)	(15.6)	(15.6)

Note: Figures in brackets give percentages of forest area to total geographical area

APPENDIX 1: CONTD. FOREST AREA (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	301
	0	0	0	0	0	0	0	0	(1.8)
2 CHENNAI	42547	42547	42538	42595	42657	43098	43098	43592	43592
	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.5)	(5.5)	(5.6)	(5.5)
3 SOUTH ARCOT	50264	51182	51427	51089	51708	69670	71276	73112	73112
	(4.6)	(4.7)	(4.7)	(4.7)	(4.7)	(6.4)	(6.6)	(6.7)	(6.7)
4 NORTH ARCOT	318887	319023	319023	319023	319023	319023	319023	319023	319023
	(25.9)	(25.9)	(25.9)	(26.1)	(26.1)	(26.1)	(26.1)	(26.1)	(26.1)
5 SALEM	167129	167207	166807	166807	166807	166807	166807	166807	169051
	(19.4)	(19.4)	(19.3)	(19.3)	(19.3)	(19.3)	(19.3)	(19.3)	(19.6)
6 DHARMAPURI	327047	327187	327187	327187	327187	327297	334012	334158	366231
	(33.9)	(34.0)	(34.0)	(34.0)	(34.0)	(34.2)	(34.9)	(34.9)	(38.2)
7 COIMBATORE-old	388597	388597	394364	394369	394374	394462	388564	388564	386563
	(24.7)	(24.7)	(25.1)	(25.1)	(25.1)	(25.1)	(24.8)	(24.8)	(24.6)
7 COIMBATORE-new	155770	155770	161537	161542	161542	161542	155644	155644	158685
	(20.8)	(20.8)	(21.6)	(21.6)	(21.6)	(21.0)	(20.9)	(20.9)	(21.2)
8 PERIYAR	232827	232827	232827	232827	232832	232920	232920	232920	227878
	(28.3)	(28.3)	(28.3)	(28.2)	(28.2)	(28.3)	(28.3)	(28.3)	(27.7)
9 TIRUCHIRAPALLI	55391	55414	55548	56755	75615	75615	79630	79341	79341
	(5.0)	(5.0)	(5.0)	(5.1)	(6.8)	(6.8)	(7.2)	(7.1)	(7.1)
10 PUDUKOTTAI	23999	24000	23732	23732	23732	23738	23738	23738	23738
	(5.2)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)
11 THANJAVUR	11623	11633	11633	11641	11641	11725	11725	11725	15921
	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.9)
12 MADURAI-old	253560	253568	253568	253568	253568	253568	271050	299576	299576
	(20.0)	(20.0)	(20.0)	(20.0)	(20.0)	(20.0)	(21.4)	(22.6)	(23.0)
12 MADURAI-new	0	0	0	0	0	139274	160653	160653	160653
	0	0	0	0	0	(21.1)	(23.7)	(23.7)	(23.7)
13 ANNA	0	0	0	0	0	114294	110397	138923	138923
	0	0	0	0	0	(18.8)	(18.4)	(21.4)	(22.2)
14 RAMANATHAPURAM-old	48513	48768	48768	48768	48768	46740	46740	47610	52707
	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(3.7)	(3.7)	(3.8)	(4.2)
14 RAMANATHAPURAM-new	0	0	0	0	4488	4181	4181	4488	4488
	0	0	0	0	(1.1)	(1.0)	(1.0)	(1.1)	(1.1)
15 KAMARAJAR	0	0	0	0	25989	25989	25989	26552	26552
	0	0	0	0	(6.1)	(6.1)	(6.2)	(6.3)	(6.3)
16 T.THIRUMAHANAR	0	0	0	0	18291	16570	16570	16570	21667
	0	0	0	0	(4.5)	(4.1)	(4.1)	(4.1)	(5.4)
17 TIRUNELVELI-old	138057	137045	137045	137045	137045	137045	136557	136858	137336
	(12.1)	(12.0)	(12.1)	(12.0)	(12.0)	(12.0)	(12.0)	(12.0)	(12.0)
17 TIRUNELVELI-new	0	0	0	0	0	0	123801	124102	126334
	0	0	0	0	0	0	(18.2)	(18.2)	(18.5)
18 CHIDAMBARAMAR	0	0	0	0	0	0	12756	12756	11002
	0	0	0	0	0	0	(2.8)	(2.8)	(2.4)
19 THE NILGIRIS	142616	143140	143201	143200	143200	143200	144113	143526	143529
	(56.0)	(56.2)	(56.4)	(56.4)	(56.4)	(56.4)	(56.7)	(56.4)	(56.4)
20 KANYAKUMARAI	54644	55044	55044	54453	54453	54331	54393	54211	54155
	(32.7)	(32.9)	(32.9)	(32.6)	(32.6)	(32.5)	(32.5)	(32.4)	(32.4)
21 STATE	2022874	2024355	2029885	2030232	2049778	2066319	2090726	2121842	2164176
	(15.6)	(15.6)	(15.6)	(15.6)	(15.8)	(15.9)	(16.1)	(16.3)	(16.6)

Note: Figures in brackets give percentages of forest area to total geographical area

APPENDIX 2:

BARREN AND UNCULTIVABLE LAND (ha.)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	50358	51065	51206	51206	51206	31021	30686	30686	32066	32407
	(6.1)	(6.2)	(6.2)	(6.2)	(6.2)	(3.9)	(3.9)	(3.8)	(4.1)	(4.1)
3 SOUTH ARCOT	157283	157285	157284	157055	132535	125284	123508	125677	125678	123969
	(14.4)	(14.4)	(14.4)	(14.4)	(12.2)	(11.5)	(11.4)	(11.5)	(11.5)	(11.4)
4 NORTH ARCOT	76132	76170	76184	76670	69075	67184	69736	66366	65887	65488
	(6.2)	(6.2)	(6.2)	(6.2)	(5.6)	(5.5)	(5.5)	(5.4)	(5.3)	(5.3)
5 SALEM	88387	71670	69937	69937	69937	69937	66625	69325	69325	69272
	(10.3)	(8.3)	(8.1)	(8.1)	(8.1)	(8.1)	(7.7)	(8.1)	(8.0)	(8.1)
6 DHARMAPURI	80488	80488	80488	80488	80488	79492	79680	79680	79681	75022
	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)	(8.3)	(8.2)	(8.3)	(8.3)	(7.8)
7 COIMBATORE-old	49817	49673	50027	49759	19608	19274	19253	19253	19253	19253
	(3.2)	(3.2)	(3.2)	(3.2)	(1.3)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	11734
	0	0	0	0	0	0	0	0	0	(1.6)
8 PERIYAR	0	0	0	0	0	0	0	0	0	7519
	0	0	0	0	0	0	0	0	0	(0.9)
9 TIRUCHIRAPALLI	48986	48262	40662	40662	40528	40528	40528	40528	37052	36331
	(3.4)	(3.4)	(3.7)	(3.7)	(3.6)	(3.6)	(3.6)	(3.6)	(3.3)	(3.2)
10 PUDUKOTTAI	0	0	10843	9647	7980	10840	9800	9800	9803	9803
	0	0	(2.3)	(2.1)	(1.7)	(2.3)	(2.1)	(2.1)	(2.1)	(2.1)
11 THANJAVUR	32185	32185	28880	31177	31201	34368	31977	28380	34935	35807
	(3.3)	(3.3)	(3.5)	(3.8)	(3.8)	(4.2)	(3.9)	(3.5)	(4.3)	(4.4)
12 MADURAI-old	80339	79182	79001	78798	85432	85233	86651	84747	76707	76706
	(6.4)	(6.3)	(6.3)	(6.2)	(6.8)	(6.7)	(6.8)	(6.7)	(6.1)	(6.1)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	53974	53974	53741	53589	19965	19580	19817	20004	17496	17483
	(4.3)	(4.3)	(4.3)	(4.3)	(1.6)	(1.6)	(1.6)	(1.6)	(1.4)	(1.4)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 D.THIRUMAHANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	60013	53274	52961	52775	54304	40119	36438	32272	33601	32869
	(5.3)	(4.7)	(4.6)	(4.6)	(4.8)	(3.5)	(3.2)	(2.8)	(2.9)	(2.9)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIDAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	33815	33815	33814	33814	33814	33814	4831	4930	4247	4247
	(13.3)	(13.3)	(13.2)	(13.3)	(13.3)	(13.3)	(1.9)	(1.9)	(1.7)	(1.7)
20 KANYAKUMARAI	20258	18176	17656	7933	6021	7486	5790	5387	4650	4586
	(12.1)	(10.9)	(10.6)	(4.7)	(3.6)	(4.5)	(3.5)	(3.2)	(2.8)	(2.7)
21 STATE	832035	805219	802644	793510	702094	664160	623520	617035	610381	603243
	(6.4)	(6.2)	(6.2)	(6.1)	(5.4)	(5.1)	(4.8)	(4.7)	(4.7)	(4.6)

Note: Figures in brackets give percentages of barren and uncultivable land to total geographical area

APPENDIX 2: CONTD. BARREN AND UNCULTIVABLE LAND (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2 CHENNAI	30872	30785	32022	31983	33303	34211	34871	32534	31043
	(3.9)	(3.9)	(4.1)	(4.1)	(4.2)	(4.3)	(4.4)	(4.1)	(4.0)
3 SOUTH ARCOT	106095	104984	112265	110873	110873	94491	94491	92479	89695
	(9.7)	(9.6)	(10.3)	(10.2)	(10.2)	(8.7)	(8.7)	(8.5)	(8.2)
4 NORTH ARCOT	65079	64082	63715	53352	50410	48845	47427	48076	46331
	(5.3)	(5.2)	(5.2)	(4.4)	(4.1)	(4.0)	(3.9)	(3.9)	(3.8)
5 SALEM	69271	69201	69192	69192	69183	69059	68959	68829	68494
	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(7.9)
6 CHAMPUKI	69438	68374	68824	66056	3362	66825	61825	61502	42282
	(7.2)	(7.1)	(7.2)	(6.9)	(6.3)	(7.0)	(6.5)	(6.4)	(4.4)
7 COIMBATORE-old	19316	19639	19639	19250	18883	18181	18349	18542	18461
	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)
7 COIMBATORE-new	11734	11734	11734	11382	11320	11070	11012	11018	11018
	(1.6)	(1.6)	(1.6)	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)
8 PERIYAR	7582	7905	7905	7868	7563	7111	7337	7524	7443
	(0.9)	(1.0)	(1.0)	(1.0)	(0.9)	(0.8)	(0.9)	(0.9)	(0.9)
9 TIRUCHIRAPALLI	36331	36346	33215	34742	35565	35565	33637	33921	33888
	(3.3)	(3.3)	(3.0)	(3.1)	(3.2)	(3.2)	(3.1)	(3.1)	(3.0)
10 PUDUKKOTTAI	9803	9800	9800	9800	9800	9812	9812	9812	9863
	(2.1)	(2.1)	(2.1)	(2.1)	(2.1)	(2.1)	(2.1)	(2.1)	(2.1)
11 THANJAVUR	36277	36277	36230	36050	36091	36091	36093	36093	35560
	(4.4)	(4.4)	(4.4)	(4.4)	(4.4)	(4.4)	(4.4)	(4.4)	(4.3)
12 MADURAI-old	76602	76590	76590	76590	76590	76590	77340	93384	72030
	(6.1)	(6.0)	(6.0)	(6.0)	(6.1)	(6.0)	(6.1)	(7.0)	(5.5)
12 MADURAI-new	0	0	0	0	0	35197	35947	34952	34952
	0	0	0	0	0	(5.4)	(5.3)	(5.2)	(5.2)
13 ANNA	0	0	0	0	0	41393	41393	58432	37078
	0	0	0	0	0	(6.8)	(6.9)	(9.0)	(5.9)
14 RAMANATHAPURAM-old	16616	16947	16947	16974	15890	13830	13830	13830	12729
	(1.3)	(1.3)	(1.3)	(1.4)	(1.3)	(1.1)	(1.1)	(1.1)	(1.0)
14 RAMANATHAPURAM-new	0	0	0	0	7964	4961	4961	4961	4961
	0	0	0	0	(1.9)	(1.2)	(1.2)	(1.2)	(1.2)
15 KAMARAJAR	0	0	0	0	4552	4445	4445	4445	4445
	0	0	0	0	(1.1)	(1.1)	(1.0)	(1.1)	(1.0)
16 D.THIRUMAHANAR	0	0	0	0	3374	4424	4424	4424	3323
	0	0	0	0	(0.8)	(1.1)	(1.1)	(1.1)	(0.8)
17 TIRUNELVELI-old	32346	40654	41630	41611	42034	41811	41863	41863	45127
	(2.8)	(3.6)	(3.6)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(4.0)
17 TIRUNELVELI-new	0	0	0	0	0	0	25456	25456	25180
	0	0	0	0	0	0	(3.7)	(3.7)	(3.7)
18 CHIDAMBARAMAR	0	0	0	0	0	0	16407	16407	19947
	0	0	0	0	0	0	(3.6)	(3.6)	(4.3)
19 THE NILGIRIS	4658	4784	4600	4600	4600	4600	3901	3767	3765
	(1.8)	(1.9)	(1.8)	(1.8)	(1.8)	(1.8)	(1.5)	(1.5)	(1.5)
20 KANYAKUMARAI	4379	4101	4073	4198	4123	3375	3368	3359	3329
	(2.6)	(2.4)	(2.4)	(2.5)	(2.4)	(2.0)	(2.0)	(2.0)	(2.0)
21 STATE	577083	582564	589742	575244	567707	553286	545766	557991	512597
	(4.5)	(4.5)	(4.5)	(4.5)	(4.4)	(4.3)	(4.2)	(4.3)	(3.9)

Note: Figures in brackets give percentages of barren and uncultivable land to total geographical area

APPENDIX 3: LAND PUT TO NON-AGRICULTURAL USES (ha.)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	12800 (100.0)									
2 CHENNAI	176458 (21.4)	172832 (21.0)	173017 (21.0)	172273 (20.9)	172308 (20.9)	183538 (23.2)	178830 (22.6)	179475 (22.7)	183645 (23.2)	186057 (23.8)
3 SOUTH ARCOT	100821 (9.3)	100500 (9.2)	100498 (9.2)	100245 (9.2)	95507 (8.8)	117936 (10.8)	115462 (10.6)	118608 (10.8)	119456 (11.0)	120507 (11.1)
4 NORTH ARCOT	107068 (8.7)	106876 (8.7)	104271 (8.5)	106616 (8.7)	128406 (10.4)	126985 (10.3)	127179 (10.3)	129813 (10.5)	132498 (10.8)	135230 (11.1)
5 SALEM	54396 (6.3)	82093 (9.5)	68671 (8.0)	68671 (7.9)	68671 (8.0)	68633 (8.0)	69346 (8.0)	70262 (8.1)	61271 (7.2)	62473 (7.3)
6 DHARMAPURI	82499 (8.6)	86244 (9.0)	87076 (9.0)	87072 (9.0)	22320 (8.0)	77460 (8.0)	77701 (8.1)	57467 (6.0)	50086 (5.2)	51056 (5.3)
7 COIMBATORE-old	77340 (5.0)	77543 (5.0)	77940 (5.0)	77321 (5.0)	127842 (8.1)	131493 (8.4)	132793 (8.4)	132916 (8.4)	134598 (8.6)	136453 (8.7)
7 COIMBATORE-new	0 0	72416 (6.7)								
8 PERIYAR	0 0	61741 (7.1)								
9 TIRUCHIRAPALLI	224834 (15.8)	222267 (15.5)	144230 (13.0)	144230 (12.9)	142137 (12.8)	145910 (13.2)	145919 (13.1)	146039 (13.2)	153171 (13.8)	156211 (14.2)
10 PUDUKKOTTAI	0 0	0 0	136659 (29.3)	137372 (29.5)	134663 (28.9)	128593 (27.6)	132984 (28.6)	133169 (28.6)	125619 (26.9)	125697 (26.9)
11 THANJAVUR	193983 (20.0)	189598 (19.6)	132951 (16.2)	134193 (16.3)	135203 (16.4)	136604 (16.7)	140257 (17.1)	141936 (17.2)	147856 (18.0)	147896 (17.9)
12 MADURAI-old	102580 (8.1)	104248 (8.3)	104475 (8.3)	104835 (8.3)	109286 (8.6)	113225 (8.9)	111125 (8.9)	111854 (8.8)	115699 (9.1)	123753 (9.3)
12 MADURAI-new	0 0									
13 ANNA	0 0									
14 RAMANATHAPURAM-old	215818 (17.4)	215818 (17.4)	216915 (17.5)	220318 (17.7)	229624 (18.5)	231690 (18.5)	231991 (18.6)	233989 (18.7)	253291 (20.3)	254048 (20.2)
14 RAMANATHAPURAM-new	0 0									
15 KAMARAJAR	0 0									
16 T.THIRUMAHANAR	0 0									
17 TIRUNELVELI-old	117381 (10.3)	115249 (10.1)	122406 (10.7)	124195 (10.9)	135825 (11.9)	153651 (13.5)	151290 (13.3)	152249 (13.4)	157023 (13.7)	159449 (13.9)
17 TIRUNELVELI-new	0 0									
18 CHIDAMBARAMAR	0 0									
19 THE NILGIRIS	11799 (4.6)	11790 (4.6)	11790 (4.6)	11790 (4.6)	11790 (4.6)	11760 (4.6)	8167 (3.2)	8008 (3.1)	8986 (3.5)	9023 (3.5)
20 KANYAKUMARI	10740 (6.4)	10770 (6.5)	10894 (6.5)	21924 (13.1)	22509 (13.5)	19786 (11.8)	18919 (11.3)	20283 (12.1)	21645 (12.9)	22261 (13.3)
21 STATE	1488517 (11.4)	1508628 (11.5)	1504593 (11.6)	1523855 (11.7)	1603891 (12.3)	1660004 (12.3)	1654763 (12.8)	1648868 (12.6)	1677616 (12.7)	1710764 (12.2)

Note: Figures in brackets indicate percentages of land put to non-agricultural uses to total geographical area.

APPENDIX 3:CONTD.LAND PUT TO NON-AGRICULTURAL USES (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	17097	17097	17097	17097	17097	17097	17097	17097	16797
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(98.2)
2 CHENNAI	189600	191688	192699	192606	195515	201849	203297	208122	209645
	(24.2)	(24.4)	(24.6)	(24.5)	(24.9)	(25.7)	(25.9)	(26.5)	(26.7)
3 SOUTH ARCOT	134741	139093	140762	156477	156477	146730	143715	143640	146258
	(12.4)	(12.8)	(12.9)	(14.4)	(14.4)	(13.5)	(13.2)	(13.2)	(13.4)
4 NORTH ARCOT	145168	153223	162138	151799	149462	150152	159098	167074	171056
	(11.8)	(12.5)	(13.2)	(12.4)	(12.2)	(12.3)	(13.0)	(13.6)	(14.0)
5 SALEM	62629	62989	63272	64074	64221	64514	67381	67414	65609
	(7.3)	(7.3)	(7.3)	(7.4)	(7.4)	(7.5)	(7.8)	(7.8)	(7.6)
6 DHARMAPURI	51128	49374	49260	48975	48268	49632	48077	48132	49156
	(5.3)	(5.1)	(5.1)	(5.1)	(5.0)	(5.2)	(5.0)	(5.0)	(5.1)
7 COIMBATORE-old	136918	136066	138456	144113	145188	150107	152273	146367	149203
	(8.7)	(8.6)	(8.8)	(9.2)	(9.2)	(9.6)	(9.7)	(9.3)	(9.5)
7 COIMBATORE-new	75612	76340	76920	81796	81157	81121	80038	77608	78571
	(10.1)	(10.2)	(10.3)	(10.9)	(10.8)	(10.8)	(10.8)	(10.4)	(10.5)
8 PERIYAR	61306	59726	61536	62317	64031	68986	72335	68759	70632
	(7.4)	(7.3)	(7.5)	(7.6)	(7.8)	(8.4)	(8.8)	(8.4)	(8.6)
9 TIRUCHIRAPALLI	160963	161032	160621	160719	155661	155832	153627	154012	155168
	(14.5)	(14.5)	(14.4)	(14.5)	(14.0)	(14.0)	(13.8)	(13.8)	(13.9)
10 PUDUKOTTAI	125835	127268	127268	127268	127272	122047	122954	123106	123188
	(27.0)	(27.3)	(27.3)	(27.3)	(27.3)	(26.2)	(26.4)	(26.4)	(26.4)
11 THANJAVUR	147003	149620	150039	150639	150700	150969	151153	151766	151311
	(17.9)	(8.2)	(18.3)	(18.3)	(18.4)	(18.4)	(18.4)	(18.5)	(18.4)
12 MADURAI-old	126258	126942	127805	128238	128294	137377	131736	130292	135228
	(10.0)	(10.0)	(10.1)	(10.1)	(10.1)	(10.8)	(10.4)	(9.8)	(10.4)
12 MADURAI-new	0	0	0	0	0	80601	74261	72073	75159
	0	0	0	0	0	(12.2)	(11.0)	(10.7)	(11.1)
13 ANNA	0	0	0	0	0	56776	57475	58219	60069
	0	0	0	0	0	(9.4)	(9.6)	(9.0)	(9.6)
14 RAMANATHAPURAM-old	255666	255853	255902	256029	256449	255472	256448	256965	257104
	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.5)	(20.6)	(20.6)
14 RAMANATHAPURAM-new	0	0	0	0	76576	79915	79867	79915	80807
	0	0	0	0	(18.2)	(19.0)	(18.9)	(18.9)	(19.1)
15 KAMARAJAR	0	0	0	0	63639	64642	65450	65730	65936
	0	0	0	0	(15.1)	(15.3)	(15.5)	(15.6)	(15.6)
16 T.THIRUMAHANAR	0	0	0	0	116234	110915	111131	111320	110361
	0	0	0	0	(28.7)	(27.4)	(27.5)	(27.5)	(27.3)
17 TIRUNELVELI-old	162509	163496	163211	164541	163742	163706	162065	158178	161715
	(14.2)	(14.3)	(14.3)	(14.4)	(14.4)	(14.3)	(14.20)	(13.9)	(14.2)
17 TIRUNELVELI-new	0	0	0	0	0	0	93618	92216	93181
	0	0	0	0	0	0	(13.7)	(13.5)	(13.7)
18 CHIDAMBARAMAR	0	0	0	0	0	0	68447	65962	68534
	0	0	0	0	0	0	(14.9)	(14.3)	(14.9)
19 THE NILGIRIS	9022	8948	9078	9122	9202	9255	8849	8942	8857
	(3.5)	(3.5)	(3.6)	(3.6)	(3.6)	(3.6)	(3.5)	(3.5)	(3.5)
20 KANYAKUMARI	22851	23666	23922	23827	23882	24035	24051	24132	23882
	(13.7)	(14.2)	(14.3)	(14.2)	(14.3)	(14.3)	(14.4)	(14.4)	(14.3)
21 STATE	1747388	1766337	1781530	1795524	1791430	1798774	1801921	1805299	1824177
	(13.5)	(13.6)	(13.7)	(13.8)	(13.8)	(13.9)	(13.9)	(13.8)	(14.0)

APPENDIX 4: CULTIVABLE WASTE (ha.)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	45786	48956	45447	46457	48767	21759	21220	19733	17903	16760
	(5.6)	(5.9)	(5.5)	(5.6)	(5.9)	(2.8)	(2.7)	(2.5)	(2.3)	(2.2)
3 SOUTH ARCOT	37881	32020	31607	30731	66184	62776	54066	53237	50895	45917
	(3.5)	(2.9)	(2.9)	(2.8)	(6.1)	(5.8)	(5.0)	(4.9)	(4.7)	(4.2)
4 NORTH ARCOT	40221	37897	29462	27150	31846	31400	26346	25936	27587	26915
	(3.3)	(3.1)	(2.4)	(2.2)	(2.6)	(2.6)	(2.1)	(2.2)	(2.2)	(2.2)
5 SALEM	27103	27023	27247	27247	27247	26569	26468	23495	25174	24420
	(3.1)	(3.1)	(3.2)	(3.2)	(3.2)	(3.1)	(3.1)	(2.7)	(2.9)	(2.8)
6 DHARMAPURI	7722	8593	8083	8561	10507	10312	10160	9753	9726	10191
	(0.8)	(0.9)	(0.8)	(0.9)	(1.1)	(1.1)	(1.1)	(1.0)	(1.0)	(1.1)
7 COIMBATORE-old	39348	27697	29597	28338	8913	6926	7112	6815	6893	6331
	(2.5)	(1.8)	(1.9)	(1.8)	(0.6)	(0.4)	(0.5)	(0.4)	(0.4)	(0.4)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	2296
	0	0	0	0	0	0	0	0	0	(0.3)
8 PERIYAR	0	0	0	0	0	0	0	0	0	4035
	0	0	0	0	0	0	0	0	0	(0.5)
9 TIRUCHIRAPALLI	69792	63758	43613	46152	47415	45529	41886	39915	49600	44585
	(4.9)	(4.5)	(4.3)	(4.1)	(4.3)	(4.1)	(3.8)	(3.6)	(4.5)	(4.0)
10 PUDUKOTTAI	0	0	20730	19569	20101	18590	14991	14220	14671	13724
	0	0	(4.4)	(4.2)	(4.3)	(4.0)	(3.2)	(3.1)	(3.1)	(2.9)
11 THANJAVUR	27932	26331	19689	21239	21839	20247	19910	15487	19679	18878
	(2.9)	(2.7)	(2.4)	(2.6)	(2.7)	(2.5)	(2.5)	(1.9)	(2.4)	(2.3)
12 MADURAI-old	31166	31166	30751	29826	30326	25917	26935	22205	25922	19198
	(2.5)	(2.4)	(2.4)	(2.4)	(2.3)	(2.0)	(2.1)	(1.8)	(2.0)	(1.5)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	89307	87353	86035	82045	40832	40952	41327	40466	36363	35911
	(7.2)	(7.0)	(6.9)	(6.6)	(3.2)	(3.3)	(3.3)	(3.2)	(2.9)	(2.9)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 T. THIRUMAHANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	66555	66704	60256	57588	62454	56915	65881	62901	63526	59777
	(5.8)	(5.8)	(5.3)	(5.0)	(5.5)	(5.0)	(5.8)	(5.5)	(5.6)	(5.2)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIDAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	21527	19664	19271	19879	18996	16508	20630	20815	13368	12976
	(8.5)	(7.7)	(7.6)	(7.8)	(7.5)	(6.5)	(8.1)	(8.3)	(5.2)	(5.1)
20 KANYAKUMARAI	2522	1914	1559	2440	1252	748	1654	1312	589	460
	(1.5)	(1.1)	(0.9)	(1.5)	(0.8)	(0.4)	(1.0)	(0.8)	(0.4)	(0.3)
21 STATE	506862	479076	457347	447222	436679	385148	378586	356290	361896	336043
	(3.9)	(3.7)	(3.5)	(3.4)	(3.4)	(3.0)	(2.9)	(2.7)	(2.8)	(2.6)

Note: Figures in brackets indicate percentage of cultivable waste to total geographical area

APPENDIX 4:CONTD.CULTIVABLE WASTE (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2 CHENNAI	15944	15482	14153	13880	13660	13497	18692	18377	20193
	(2.0)	(2.0)	(1.8)	(1.8)	(1.8)	(1.7)	(2.4)	(2.3)	(2.6)
3 SOUTH ARCOT	50841	49819	38842	36910	36849	33113	32323	30852	29928
	(4.7)	(4.6)	(3.6)	(3.4)	(3.4)	(3.0)	(3.0)	(2.8)	(2.8)
4 NORTH ARCOT	26194	25172	31256	24905	24167	22694	20309	20203	20359
	(2.1)	(2.1)	(2.5)	(2.0)	(2.0)	(1.9)	(1.7)	(1.7)	(1.6)
5 SALEM	24336	23327	23135	22863	22303	21530	21317	21171	19421
	(2.8)	(2.7)	(2.7)	(2.7)	(2.6)	(2.5)	(2.5)	(2.5)	(2.2)
6 DHARMAPURI	16476	16015	16672	16271	18236	19335	18612	18179	18551
	(1.7)	(1.7)	(1.7)	(1.7)	(1.9)	(2.0)	(1.9)	(1.9)	(1.9)
7 COIMBATORE-old	6496	8207	7084	6592	5957	5987	5087	5171	4089
	(0.4)	(0.5)	(0.5)	(0.4)	(0.4)	(0.4)	(0.3)	(0.3)	(0.3)
7 COIMBATORE-new	1945	1939	1932	2088	2126	2557	2289	2614	2623
	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.4)	(0.4)
8 PERIYAR	4551	6268	5152	4504	3831	3430	2798	2557	1466
	(0.6)	(0.8)	(0.6)	(0.5)	(0.5)	(0.4)	(0.3)	(0.3)	(0.2)
9 TIRUCHIRAPALLI	44586	44605	45423	41422	25914	25914	34071	32773	33486
	(4.0)	(4.0)	(4.1)	(3.7)	(2.3)	(2.3)	(3.1)	(3.0)	(3.0)
10 PUDUKKOTTAI	13721	13522	13522	13522	13513	14253	14253	14253	14294
	(2.9)	(2.9)	(2.9)	(2.9)	(2.9)	(3.1)	(3.1)	(3.1)	(3.1)
11 THANJAVUR	18357	18338	18338	18324	18354	18370	18946	19335	18985
	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.3)	(2.3)	(2.3)
12 MADURAI-old	18814	18585	19504	19159	18729	19025	19953	17512	16545
	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)	(1.6)	(1.3)	(1.3)
12 MADURAI-new	0	0	0	0	0	10088	10547	9775	9106
	0	0	0	0	0	(1.5)	(1.6)	(1.4)	(1.4)
13 ANNA	0	0	0	0	0	8937	9406	7737	7439
	0	0	0	0	0	(1.5)	(1.6)	(1.2)	(1.2)
14 RAMANATHAPURAM-old	35032	32675	32675	32540	32330	33553	32960	31630	30693
	(2.8)	(2.6)	(2.6)	(2.6)	(2.6)	(2.7)	(2.6)	(2.5)	(2.5)
14 RAMANATHAPURAM-new	0	0	0	0	7417	4717	4311	4311	5564
	0	0	0	0	(1.7)	(1.1)	(1.0)	(1.0)	(1.3)
15 KAMARAJAR	0	0	0	0	8679	7180	7210	7038	7038
	0	0	0	0	(2.1)	(1.7)	(1.7)	(1.7)	(1.7)
16 T.THIRUMAHANAR	0	0	0	0	16234	21656	21439	20281	18091
	0	0	0	0	(4.0)	(5.3)	(5.3)	(5.0)	(4.5)
17 TIRUNELVELI-old	59134	59454	60879	60643	60184	59008	58668	56571	59632
	(5.2)	(5.2)	(5.3)	(5.3)	(5.3)	(5.2)	(5.1)	(5.0)	(5.2)
17 TIRUNELVELI-new	0	0	0	0	0	0	39274	37339	39475
	0	0	0	0	0	0	(5.8)	(5.5)	(5.8)
18 CHIDAMBARAMAR	0	0	0	0	0	0	19394	19232	20157
	0	0	0	0	0	0	(4.2)	(4.2)	(4.4)
19 THE NILGIRIS	12996	9471	8547	8548	8548	8548	3355	2889	2809
	(5.1)	(3.7)	(3.4)	(3.4)	(3.4)	(3.4)	(1.3)	(1.2)	(1.1)
20 KANYAKUMARAI	509	430	413	143	139	112	113	111	182
	(0.3)	(0.3)	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
21 STATE	343436	335462	330443	315722	298883	294939	298659	289027	289167
	(2.6)	(2.6)	(2.5)	(2.4)	(2.3)	(2.3)	(2.3)	(2.2)	(2.2)

Note: Figures in brackets indicate percentage of cultivable waste to total geographical area

APPENDIX 5: PERMANENT PASTURES AND OTHER GRAZING LAND (ha.)

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	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	48244	47527	47846	47773	48244	33966	31644	30428	28455	28515
	(5.8)	(5.8)	(5.8)	(5.8)	(5.8)	(4.3)	(4.2)	(3.9)	(3.6)	(3.6)
3 SOUTH ARCOT	9358	9247	9225	9220	10994	10994	8579	8755	8755	8758
	(0.9)	(0.8)	(0.8)	(0.8)	(1.0)	(1.0)	(0.8)	(0.8)	(0.8)	(0.8)
4 NORTH ARCOT	18312	18292	18230	19039	12193	9376	9307	8972	10540	10200
	(1.5)	(1.5)	(1.5)	(1.5)	(1.0)	(0.8)	(0.8)	(0.7)	(0.9)	(0.8)
5 SALON	15689	15201	14663	14663	14663	14090	13771	13309	13178	13191
	(1.8)	(1.8)	(1.7)	(1.7)	(1.7)	(1.6)	(1.6)	(1.6)	(1.5)	(1.5)
6 DHARMAPURI	11688	11781	11708	11409	11120	11370	11494	11799	11761	12240
	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.3)
7 COIMBATORE-old	18181	18140	17663	17633	9473	9229	9302	9302	9302	8782
	(1.2)	(1.2)	(1.1)	(1.1)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	2383
	0	0	0	0	0	0	0	0	0	(0.3)
8 PERIYAR	0	0	0	0	0	0	0	0	0	6399
	0	0	0	0	0	0	0	0	0	(0.8)
9 TIRUCHIRAPALLI	45054	44675	41030	40685	40693	40693	40693	40694	29308	28209
	(3.2)	(3.1)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(2.6)	(2.5)
10 PUDUKOTTAI	0	0	4687	4802	4458	4411	5483	5482	5482	5482
	0	0	(1.0)	(1.0)	(1.0)	(0.9)	(2.1)	(1.2)	(1.2)	(1.2)
11 THANJAVUR	6369	6372	5860	5537	5027	4101	3969	4168	3561	4065
	(0.7)	(0.7)	(0.7)	(0.7)	(0.6)	(0.5)	(0.5)	(0.5)	(0.4)	(0.5)
12 MADURAI-old	13089	13049	13049	13049	12572	11757	12239	12103	7622	7771
	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(0.9)	(1.0)	(1.0)	(0.6)	(0.6)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	4794	4999	4937	4937	3336	3100	3237	3255	2942	2973
	(0.4)	(0.4)	(0.4)	(0.4)	(0.3)	(0.2)	(0.3)	(0.3)	(0.2)	(0.2)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 T. THIRUMAHANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	31088	31094	30751	30628	25778	22214	22594	22414	22795	20475
	(2.7)	(2.7)	(2.7)	(2.7)	(2.3)	(1.9)	(2.0)	(2.0)	(2.0)	(1.8)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIDAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	8792	8792	8792	8783	8792	8792	5943	5934	7300	6484
	(3.5)	(3.5)	(3.4)	(3.4)	(3.5)	(3.5)	(2.3)	(2.3)	(2.9)	(2.5)
20 KANYAKUMARAI	0	0	0	387	230	224	349	440	382	380
	0	0	0	(0.2)	(0.1)	(0.1)	(0.2)	(0.3)	(0.2)	(0.2)
21 STATE	230658	229169	228441	228555	207574	184317	178604	177055	161383	157525
	(1.8)	(1.8)	(1.8)	(1.8)	(1.6)	(1.4)	(1.4)	(1.4)	(1.2)	(1.2)

NOTE: FIGURES IN BRACKETS INDICATE PERCENTAGES OF PERMANENT PASTURES AND OTHER GRAZING LAND TO

APPENDIX 5:CONTD.PERMANT PASTURES AND OTHER GRAZING LAND (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2 CHENNAI	28731	28720	28815	28717	28317	28254	27097	25578	25368
	(3.7)	(3.7)	(3.7)	(3.7)	(3.6)	(3.6)	(3.5)	(3.3)	(3.2)
3 SOUTH ARCOT	8758	8136	8416	7361	7361	7361	7361	6014	5681
	(0.8)	(0.7)	(0.8)	(0.6)	(0.7)	(0.7)	(0.7)	(0.5)	(0.5)
4 NORTH ARCOT	10305	10208	10289	9837	8965	8887	9325	7188	7104
	(0.8)	(0.8)	(0.8)	(0.8)	(0.7)	(0.7)	(0.8)	(0.6)	(0.6)
5 SALEM	13191	13166	13129	12941	12937	12951	12951	12951	12951
	(1.5)	(1.5)	(1.5)	(1.5)	(1.4)	(1.5)	(1.5)	(1.5)	(1.5)
6 DHARMAPURI	13532	12911	11911	12701	13434	13474	12985	12565	12696
	(1.4)	(1.3)	(1.2)	(1.3)	(1.5)	(1.4)	(1.3)	(1.3)	(1.3)
7 COIMBATORE-old	8620	8620	6486	4655	3288	3223	3138	3212	3062
	(0.5)	(0.5)	(0.4)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
7 COIMBATORE-new	2383	2383	2383	2267	2096	1984	1972	2109	2001
	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.2)	(0.3)	(0.3)
8 PERIYAR	6237	6237	4103	2388	1192	1239	1166	1103	1061
	(0.8)	(0.7)	(0.5)	(0.3)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
9 TIRUCHIRAPALLI	27625	27636	26700	26339	26237	26237	16291	17634	17607
	(2.5)	(2.5)	(2.4)	(2.4)	(2.4)	(2.4)	(1.5)	(1.6)	(1.6)
10 PUDUKKOTTAI	5482	5382	5382	5382	5382	5305	5305	5305	5208
	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.1)	(1.1)	(1.1)	(1.1)
11 THANJAVUR	4185	4185	4119	3980	3980	3890	3884	3847	3847
	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
12 MADURAI-old	7771	7771	7768	7768	8125	8125	7593	7587	7501
	(0.6)	(0.6)	(0.6)	(0.6)	(0.7)	(0.6)	(0.6)	(0.6)	(0.6)
12 MADURAI-new	0	0	0	0	0	830	670	664	578
	0	0	0	0	0	(0.1)	(0.1)	(0.1)	(0.1)
13 ANNA	0	0	0	0	0	7295	6923	6923	6923
	0	0	0	0	0	(1.2)	(1.1)	(1.2)	(1.1)
14 RAMANATHAPURAM-old	2947	2969	2969	2959	2965	3052	3032	3032	3032
	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
14 RAMANATHAPURAM-new	0	0	0	0	776	856	856	856	856
	0	0	0	0	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
15 KAMARAJAR	0	0	0	0	907	907	907	907	907
	0	0	0	0	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
16 T.THIRUMAHANAR	0	0	0	0	1282	1289	1269	1269	1269
	0	0	0	0	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
17 TIRUNELVELI-old	21758	21983	21834	21638	21609	21172	21816	22129	15988
	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.4)
17 TIRUNELVELI-new	0	0	0	0	0	0	13233	13546	10936
	0	0	0	0	0	0	(1.9)	(2.0)	(1.6)
18 CHIDAMBARAMAR	0	0	0	0	0	0	8583	8583	5052
	0	0	0	0	0	0	(1.9)	(1.9)	(1.1)
19 THE NILGIRIS	6362	6413	6415	6415	6415	6415	6919	6919	6878
	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.7)	(2.7)	(2.7)
20 KANYAKUMARAI	380	380	380	102	100	100	100	94	97
	(0.2)	(0.2)	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
21 STATE	159647	158480	154613	150795	149115	148446	137797	134055	127020
	(1.2)	(1.2)	(1.2)	(1.2)	(1.1)	(1.1)	(1.0)	(1.0)	(1.0)

APPENDIX 6: LAND UNDER MISCELLANEOUS TREE CROPS AND GROVES NOT INCLUDED IN THE NET AREA SOWN (ha.)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	43208	37975	38836	39972	37379	27717	28093	26195	26149	29430
	(5.2)	(4.6)	(4.7)	(4.8)	(4.5)	(3.5)	(3.6)	(3.3)	(3.3)	(3.8)
3 SOUTH ARCOT	47942	49177	52363	53734	53901	47415	48265	45214	46844	51893
	(4.4)	(4.5)	(4.8)	(4.9)	(4.9)	(4.4)	(4.4)	(4.2)	(4.3)	(4.8)
4 NORTH ARCOT	12763	12627	12503	12395	10368	10119	10687	10696	12963	12948
	(1.0)	(1.0)	(1.0)	(1.0)	(0.8)	(0.8)	(0.9)	(0.9)	(1.1)	(1.1)
5 SALEM	3252	5382	5085	5067	5143	5085	5257	5262	5292	5358
	(0.4)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)
6 DHARMAPURI	3624	3738	3708	3446	5212	5426	5630	9076	8597	9123
	(0.4)	(0.4)	(0.4)	(0.4)	(0.5)	(0.5)	(0.6)	(0.9)	(0.9)	(0.9)
7 COIMBATORE-old	6123	6128	6413	6420	12837	12883	13072	12626	12555	12522
	(0.4)	(0.4)	(0.4)	(0.4)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	7886
	0	0	0	0	0	0	0	0	0	(1.1)
8 PERIYAR	0	0	0	0	0	0	0	0	0	463
	0	0	0	0	0	0	0	0	0	(0.6)
9 TIRUCHIRAPALLI	21309	25378	17723	17922	16990	16997	16040	15991	13091	11984
	(1.5)	(1.8)	(1.6)	(1.6)	(1.5)	(1.5)	(1.4)	(1.4)	(1.2)	(1.1)
10 PUDUKOTTAI	0	0	11804	14470	11005	7957	7687	8128	7987	8320
	0	0	(2.5)	(3.1)	(2.4)	(1.7)	(1.6)	(1.7)	(1.7)	(1.8)
11 THANJAVUR	32120	34368	33567	29862	28491	20193	19490	20219	18390	17913
	(3.3)	(3.5)	(4.1)	(3.6)	(3.5)	(2.4)	(2.4)	(2.5)	(2.2)	(2.2)
12 MADURAI-old	20183	20145	19982	20939	15684	15680	15013	15119	15278	15043
	(1.6)	(1.6)	(1.6)	(1.6)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	8464	10200	10603	10828	7032	5044	6394	7550	9290	8951
	(0.7)	(0.8)	(0.9)	(0.9)	(0.6)	(0.4)	(0.5)	(0.6)	(0.8)	(0.7)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 T.THIRUMAHANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	19026	16410	16358	16359	18937	22597	13083	12854	14578	13634
	(1.7)	(1.4)	(1.4)	(1.4)	(1.7)	(2.0)	(1.1)	(1.1)	(1.3)	(1.2)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIDAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	7837	7835	7489	7489	7489	7489	3063	2815	2075	2277
	(3.1)	(3.1)	(2.9)	(2.9)	(2.9)	(2.9)	(1.2)	(1.1)	(0.8)	(0.9)
20 KANYAKUMARAI	597	512	543	1124	1300	2185	1620	529	334	304
	(0.4)	(0.3)	(0.3)	(0.7)	(0.8)	(1.3)	(1.0)	(0.3)	(0.2)	(0.2)
21 STATE	266448	229875	236977	240027	231768	206789	193394	192274	193423	199670
	(1.7)	(1.8)	(1.8)	(1.8)	(1.8)	(1.6)	(1.5)	(1.5)	(1.5)	(1.5)

Note: Figures in brackets indicate the percentages of land under miscellaneous tree crops and groves not included in the net area sown to total geographical area.

APPENDIX 6:CONTD. LAND UNDER MISCELLANEOUS TREE CROPS AND GROVES NOT INCLUDED IN THE NET AREA SOWN (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2 CHENNAI	31026	33859	30753	31356	30578	30275	27037	11598	11528
	(4.0)	(1.3)	(3.9)	(4.0)	(3.9)	(3.9)	(3.4)	(1.5)	(1.5)
3 SOUTH ARCOT	55567	54513	51610	46076	41953	44999	43393	37744	31584
	(5.1)	(5.0)	(4.7)	(4.2)	(3.8)	(4.1)	(3.9)	(3.5)	(2.9)
4 NORTH ARCOT	12678	11557	9593	6743	10407	10034	8588	9380	8927
	(1.0)	(0.9)	(0.8)	(0.5)	(0.9)	(0.8)	(0.7)	(0.8)	(0.7)
5 SALEM	5377	5407	5747	6305	6324	6350	6344	6348	6348
	(0.6)	(0.6)	(0.7)	(0.7)	(0.8)	(0.7)	(0.7)	(0.7)	(0.7)
6 DHARMAPURI	9471	9529	9269	9093	8883	8734	8611	6704	6860
	(1.0)	(1.0)	(1.0)	(0.9)	(0.9)	(0.9)	(0.9)	(0.7)	(0.7)
7 COIMBATORE-old	13847	17026	11115	9473	5534	5195	5273	5027	5026
	(0.9)	(1.1)	(0.7)	(0.6)	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)
7 COIMBATORE-new	7729	10690	5082	4296	3707	3782	3773	3672	3635
	(1.0)	(1.4)	(0.7)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
8 PERIYAR	6118	6336	6033	5177	1827	1413	1500	1395	1391
	(0.7)	(0.8)	(0.7)	(0.6)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
9 TIRUCHIRAPALLI	13134	14454	13225	14241	14521	13720	11955	9227	8377
	(1.2)	(1.3)	(1.2)	(1.2)	(1.3)	(1.2)	(1.1)	(0.8)	(0.8)
10 PUDUKKOTTAI	7852	8202	8082	1449	7807	5317	6120	7177	6486
	(1.7)	(1.8)	(1.7)	(0.3)	(1.6)	(1.1)	(1.3)	(1.5)	(1.4)
11 THANJAVUR	18373	18168	16961	15639	16202	14985	15683	5985	4186
	(2.2)	(2.2)	(2.1)	(1.9)	(2.0)	(1.8)	(1.9)	(0.7)	(0.5)
12 MADURAI-old	15054	15024	14890	14922	12869	12887	12198	12138	12015
	(1.2)	(1.2)	(1.2)	(1.2)	(1.0)	(1.0)	(1.0)	(0.9)	(0.9)
12 MADURAI-new	0	0	0	0	0	1729	980	1034	911
	0	0	0	0	0	(0.3)	(0.1)	(0.2)	(0.1)
13 ANNA	0	0	0	0	0	11158	11218	11104	11104
	0	0	0	0	0	(1.8)	(1.9)	(1.7)	(1.8)
14 RAMANATHAPURAM-old	9652	8773	9020	7336	8997	8920	9157	2598	1701
	(0.8)	(0.7)	(0.7)	(0.6)	(0.7)	(0.7)	(0.7)	(0.2)	(0.1)
14 RAMANATHAPURAM-new	0	0	0	0	5143	4495	4894	0	0
	0	0	0	0	(1.2)	(1.1)	(1.2)	-	-
15 KAMARAJAR	0	0	0	0	2170	2478	2299	634	0
	0	0	0	0	(0.5)	(0.6)	(0.5)	(0.1)	-
16 T.THIRUMAHANAR	0	0	0	0	1684	1947	1964	1964	1701
	0	0	0	0	(0.4)	(0.5)	(0.5)	(0.5)	(0.4)
17 TIRUNELVELI-old	18147	20240	18142	18368	17751	25683	30387	32940	14356
	(1.6)	(1.8)	(1.6)	(1.6)	(1.5)	(2.2)	(2.7)	(2.9)	(1.3)
17 TIRUNELVELI-new	0	0	0	0	0	0	8744	9277	9612
	0	0	0	0	0	0	(1.3)	(1.3)	(1.4)
18 CHIDAMBARAMAR	0	0	0	0	0	0	21643	23003	4744
	0	0	0	0	0	0	(4.7)	(5.1)	(1.0)
19 THE NILGIRIS	2290	2094	2095	2093	2093	2093	1548	1649	1549
	(0.9)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.6)	(0.6)	(0.6)
20 KANYAKUMARAI	288	338	228	230	210	307	306	271	275
	(0.2)	(0.2)	(0.2)	(0.1)	(0.1)	(0.2)	(0.2)	(0.2)	(0.2)
21 STATE	212756	219184	200730	183324	184429	189499	186800	148606	119218
	(1.6)	(1.7)	(1.5)	(1.4)	(1.4)	(1.4)	(1.4)	(1.1)	(0.9)

APPENDIX 7:

AREA UNDER CURRENT FALLOW (ha.)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	53430	50384	58915	64788	104231	93463	103108	89400	94113	99015
	(6.5)	(6.1)	(7.1)	(7.9)	(12.6)	(11.8)	(13.1)	(11.4)	(11.9)	(12.6)
3 SOUTH ARCOT	39493	28372	17594	50124	111631	91877	76569	69246	64888	64643
	(3.6)	(2.6)	(1.6)	(4.6)	(10.2)	(8.4)	(7.0)	(6.4)	(6.0)	(5.9)
4 NORTH ARCOT	68977	78404	86669	81687	85643	86284	82906	77070	90681	96001
	(5.6)	(6.4)	(7.0)	(6.6)	(7.0)	(7.0)	(6.8)	(6.2)	(7.4)	(7.4)
5 SALEM	62526	53109	56257	53639	92428	72260	86521	63901	58662	52757
	(7.2)	(6.2)	(6.5)	(6.2)	(10.7)	(8.4)	(10.1)	(7.4)	(6.8)	(6.1)
6 DHARMAPURI	42794	42950	41473	98098	74938	28998	38182	36845	24924	29386
	(4.4)	(4.5)	(4.3)	(10.2)	(7.8)	(3.0)	(4.0)	(3.8)	(2.6)	(3.1)
7 COIMBATORE-old	155741	132056	150822	167759	295570	263997	286357	243500	252752	254704
	(10.0)	(8.5)	(9.7)	(10.7)	(18.8)	(16.9)	(18.3)	(15.5)	(16.1)	(16.2)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	108594
	0	0	0	0	0	0	0	0	0	(14.5)
8 PERIYAR	0	0	0	0	0	0	0	0	0	146110
	0	0	0	0	0	0	0	0	0	(17.7)
9 TIRUCHIRAPALLI	111478	101299	98011	106526	171561	133498	137288	110714	136206	153075
	(7.8)	(7.1)	(8.2)	(9.6)	(15.4)	(12.0)	(12.3)	(10.0)	(12.2)	(13.8)
10 PUDUKOTTAI	0	0	22674	26023	74503	51246	49690	37906	48390	47056
	0	0	(4.9)	(5.6)	(16.0)	(11.0)	(10.7)	(8.1)	(10.4)	(10.1)
11 THANJAVUR	24469	24825	20897	16602	28846	20614	37976	25243	17398	14191
	(2.5)	(2.6)	(2.6)	(2.0)	(3.5)	(2.5)	(4.6)	(3.1)	(2.1)	(1.7)
12 MADURAI-old	126963	113052	109466	118833	194321	162263	173820	141066	147551	153141
	(10.1)	(9.0)	(8.7)	(9.4)	(15.4)	(12.8)	(13.7)	(11.1)	(11.7)	(12.1)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	153462	124314	119946	130469	335961	199124	180519	164444	185482	182269
	(12.3)	(10.0)	(9.6)	(10.5)	(26.9)	(15.9)	(14.4)	(13.2)	(14.8)	(14.6)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 T.THIRUMAHANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	119420	107874	82796	85444	158144	204976	146433	129314	132187	145065
	(10.5)	(9.4)	(7.2)	(7.5)	(13.7)	(18.0)	(12.8)	(11.3)	(11.6)	(12.7)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIDAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	4148	3011	3889	2839	2838	4555	8434	7787	11379	11448
	(1.6)	(1.2)	(1.5)	(1.1)	(1.1)	(1.7)	(3.3)	(3.1)	(4.5)	(4.5)
20 KANYAKUMARAI	1739	1146	1113	884	742	400	6063	2095	2818	2498
	(1.0)	(0.7)	(0.7)	(0.5)	(0.4)	(0.2)	(3.6)	(1.3)	(1.7)	(1.5)
21 STATE	964640	860796	863322	1008715	1731327	1415555	1413866	1198531	1267381	1305199
	(7.4)	(6.6)	(6.6)	(7.7)	(13.3)	(10.8)	(10.9)	(9.2)	(9.8)	(10.0)

NOTE : FIGURES IN BRACKETS INDICATE PERCENTAGES OF AREA UNDER CURRENT OF AREA UNDER CURRENT FALLOWS TO TOTAL

APPENDIX 7:CONTD. AREA UNDER CURRENT FALLOW (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2 CHENNAI	145523	128242	174132	120554	106172	98460	144867	129704	131432
	(18.6)	(16.4)	(22.2)	(15.3)	(13.5)	(12.5)	(18.4)	(16.5)	(16.7)
3 SOUTH ARCOT	140098	94853	189848	102224	64796	52854	71236	92908	136736
	(12.9)	(8.7)	(17.4)	(9.4)	(5.9)	(4.8)	(6.5)	(8.5)	(12.5)
4 NORTH ARCOT	187542	162692	181163	125431	128446	126514	147923	152904	134233
	(15.2)	(13.2)	(14.7)	(10.3)	(10.5)	(10.3)	(12.1)	(12.5)	(11.0)
5 SALEM	144544	95639	138481	80067	81259	98448	80341	58294	54065
	(16.8)	(11.1)	(16.1)	(9.3)	(9.4)	(11.4)	(9.3)	(6.8)	(6.3)
6 DHARMAPURI	142764	95463	103826	67777	72430	42525	46187	50154	40251
	(14.8)	(9.9)	(10.8)	(7.0)	(7.5)	(4.4)	(4.8)	(5.2)	(4.2)
7 COIMBATORE-old	317849	281784	290977	238548	244557	261807	256874	261285	298085
	(20.2)	(17.9)	(18.5)	(15.2)	(15.6)	(16.7)	(16.4)	(16.7)	(19.0)
7 COIMBATORE-new	126220	111744	129859	114584	108530	110540	107623	125198	143486
	(16.9)	(14.9)	(17.2)	(15.3)	(14.5)	(14.8)	(14.5)	(16.8)	(19.2)
8 PERIYAR	191629	170040	161118	123964	136027	151267	149249	136087	154599
	(23.2)	(20.6)	(19.5)	(15.0)	(16.5)	(18.4)	(18.1)	(16.5)	(18.8)
9 TIRUCHIRAPALLI	247918	187509	218188	181058	129583	158773	178276	196186	228739
	(22.3)	(16.8)	(19.6)	(16.3)	(11.6)	(14.3)	(16.0)	(17.6)	(20.6)
10 PUDUKOTTAI	113801	75787	93978	67669	69326	51450	47874	46397	79214
	(24.4)	(16.2)	(20.2)	(14.5)	(14.9)	(11.0)	(10.3)	(10.0)	(17.0)
11 THANJAVUR	16538	15895	58424	35423	25005	51712	45687	58242	34982
	(2.0)	(2.0)	(7.1)	(4.3)	(3.0)	(6.3)	(5.6)	(7.1)	(4.3)
12 MADURAI-old	226976	172471	214207	170315	212988	177721	81812	57691	101338
	(17.9)	(13.6)	(16.9)	(13.5)	(16.8)	(14.0)	(6.5)	(4.4)	(7.8)
12 MADURAI-new	0	0	0	0	0	75834	80302	53738	61496
	0	0	0	0	0	(11.5)	(11.9)	(7.9)	(9.1)
13 ANNA	0	0	0	0	0	101887	1510	3953	39892
	0	0	0	0	0	(16.8)	(0.2)	(0.6)	(6.4)
14 RAMANATHAPURAM-old	249882	173287	210987	177366	235711	120963	136731	92518	171183
	(20.0)	(13.9)	(16.0)	(14.2)	(18.9)	(9.7)	(10.9)	(7.4)	(13.6)
14 RAMANATHAPURAM-new	0	0	0	0	83110	68796	84023	71199	93215
	0	0	0	0	(19.7)	(16.3)	(19.9)	(16.9)	(22.0)
15 KAMARAJAR	0	0	0	0	97614	18249	23592	21319	37118
	0	0	0	0	(23.1)	(4.3)	(5.6)	(5.0)	(8.8)
16 T.THIRUMAHANAR	0	0	0	0	54987	33918	29116	12374	40850
	0	0	0	0	(13.5)	(8.4)	(7.2)	(3.1)	(10.1)
17 TIRUNELVELI-old	171614	182839	193073	164420	169965	153061	195836	138031	121253
	(15.0)	(16.1)	(16.9)	(14.4)	(14.9)	(13.4)	(17.2)	(12.4)	(10.6)
17 TIRUNELVELI-new	0	0	0	0	0	0	154684	99966	95300
	0	0	0	0	0	0	(22.7)	(14.7)	(14.0)
18 CHIDAMBARAMAR	0	0	0	0	0	0	41152	38065	25953
	0	0	0	0	0	0	(9.0)	(8.3)	(5.7)
19 THE NILGIRIS	11859	19201	17643	16385	14083	14139	12227	11521	14048
	(4.7)	(7.6)	(6.9)	(6.4)	(5.5)	(5.6)	(4.8)	(4.5)	(5.5)
20 KANYAKUMARAI	3936	1835	1810	2073	1467	1543	5912	2527	854
	(2.3)	(1.1)	(1.1)	(1.2)	(10.9)	(10.9)	(3.5)	(1.5)	(0.5)
21 STATE	2120844	1688496	2086737	1549310	1555788	1409970	1451781	1360734	1546463
	(16.3)	(13.0)	(16.1)	(11.9)	(12.0)	(10.9)	(11.2)	(10.5)	(11.9)

NOTE :FIGURES IN BRACKETS INDICATE PERCENTAGES OF AREA UNDER CURRENT OF AREA UNDER CURRENT FALLOW TO TOTAL

APPENDIX 8: OTHER FALLOW LANDS (ha.)

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	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	37604	38330	39008	39838	39588	16367	17660	21412	19849	18681
	(4.6)	(4.6)	(4.7)	(4.8)	(4.9)	(2.1)	(2.2)	(2.7)	(2.5)	(2.4)
3 SOUTH ARCOT	39502	39900	39923	38789	43596	40082	43647	43463	39072	33707
	(3.6)	(3.7)	(3.7)	(3.6)	(4.0)	(3.7)	(4.0)	(4.0)	(3.6)	(3.1)
4 NORTH ARCOT	49222	52164	54438	54854	44984	43163	43527	43763	39828	38963
	(4.2)	(4.2)	(4.4)	(4.5)	(3.7)	(3.5)	(3.5)	(3.6)	(3.2)	(3.2)
5 SALEM	38396	31883	35440	35440	30197	27194	33946	28614	27667	24073
	(4.5)	(3.7)	(4.1)	(4.1)	(3.5)	(3.2)	(3.9)	(3.3)	(3.2)	(2.8)
6 DHARMAPURI	9947	7114	7636	6528	8571	8945	9069	7299	7287	10862
	(1.0)	(0.7)	(0.8)	(0.7)	(0.8)	(0.9)	(0.9)	(0.8)	(0.7)	(1.1)
7 COIMBATORE-old	82665	76159	74465	74267	63494	39809	38692	24686	22627	29025
	(5.3)	(4.9)	(4.8)	(4.8)	(4.0)	(2.5)	(2.5)	(1.6)	(1.4)	(1.8)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	13010
	0	0	0	0	0	0	0	0	0	(1.7)
8 PERIYAR	0	0	0	0	0	0	0	0	0	16015
	0	0	0	0	0	0	0	0	0	(1.9)
9 TIRUCHIRAPALLI	53683	48121	35376	29167	31836	32301	31499	26914	26785	25224
	(3.8)	(3.4)	(3.2)	(2.6)	(2.9)	(2.9)	(2.8)	(2.4)	(2.4)	(2.3)
10 PUDUKKOTTAI	0	0	20093	22088	24806	22149	25341	19953	22984	22530
	0	0	(4.3)	(4.7)	(5.3)	(4.8)	(5.4)	(4.3)	(4.9)	(5.0)
11 THANJAVUR	23711	20556	17831	17667	20102	22525	23355	22097	12479	11206
	(2.4)	(2.1)	(2.2)	(2.2)	(2.5)	(2.7)	(2.8)	(2.7)	(1.5)	(1.4)
12 MADURAI-old	43404	39606	36163	53486	46432	36438	38016	28232	29311	23024
	(3.4)	(3.1)	(2.9)	(4.2)	(3.7)	(2.9)	(3.0)	(2.2)	(2.3)	(1.8)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	60643	54211	53689	56203	88098	98267	106441	101492	76680	79194
	(4.9)	(4.4)	(4.3)	(4.5)	(7.0)	(7.9)	(8.5)	(8.1)	(6.1)	(6.3)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 T. THIRUMAHANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	129372	127902	156367	154408	153429	130556	130140	116132	114870	104664
	(11.3)	(11.2)	(13.7)	(13.5)	(12.4)	(11.4)	(11.4)	(10.2)	(10.1)	(9.2)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	3425	3426	3736	3736	3736	3736	7076	5963	7570	6052
	(1.3)	(1.3)	(1.4)	(1.5)	(1.4)	(1.5)	(2.8)	(2.3)	(3.0)	(2.4)
20 KANYAKUMARAI	1388	1026	874	1132	35	253	412	562	622	432
	(0.8)	(0.6)	(0.5)	(0.7)	(0.1)	(0.2)	(0.2)	(0.3)	(0.4)	(0.3)
21 STATE	572962	540398	575239	587585	598904	521785	548821	490582	447571	427637
	(4.4)	(4.2)	(4.4)	(4.5)	(4.5)	(4.0)	(4.2)	(3.8)	(3.4)	(3.3)

Note: Figures in brackets indicate percentage of other fallow land
to total geographical area.

APPENDIX 8:CONTD. OTHER FALLOW LANDS(ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2 CHENNAI	20898	23554	26257	23414	25127	25213	41051	38463	38430
	(2.7)	(3.0)	(3.3)	(3.0)	(3.2)	(3.2)	(5.2)	(4.9)	(4.9)
3 SOUTH ARCOT	34726	30448	34094	49667	24329	45144	44913	44526	33534
	(3.2)	(2.8)	(3.1)	(4.5)	(2.2)	(4.2)	(4.1)	(4.1)	(3.1)
4 NORTH ARCOT	37603	46488	46875	29522	34061	31779	69337	66629	68054
	(3.1)	(3.8)	(3.9)	(2.4)	(2.8)	(2.6)	(5.6)	(5.4)	(5.6)
5 SALEM	27504	28582	29486	27072	42650	44172	44803	39111	36784
	(3.2)	(3.3)	(3.4)	(3.1)	(4.9)	(5.1)	(5.2)	(4.5)	(4.3)
6 DHARMAPURI	17688	16845	23692	19622	16972	20372	18928	19195	13911
	(1.8)	(1.7)	(2.5)	(2.0)	(1.7)	(2.1)	(2.0)	(2.0)	(1.5)
7 COIMBATORE-old	30665	29064	66802	69652	59540	61313	57636	57508	65923
	(1.9)	(1.8)	(4.2)	(4.4)	(3.8)	(3.9)	(3.7)	(3.7)	(4.2)
7 COIMBATORE-new	14190	11988	11202	6566	6266	17965	18529	18637	14568
	(1.8)	(1.6)	(1.5)	(0.9)	(0.8)	(2.4)	(2.5)	(2.5)	(2.0)
8 PERIYAR	16475	17076	55600	63086	53274	43348	39107	38871	51355
	(2.0)	(2.0)	(6.7)	(7.7)	(6.5)	(5.3)	(4.8)	(4.7)	(6.2)
9 TIRUCHIRAPALLI	26743	26754	27415	25616	91357	91972	60518	33203	33469
	(2.3)	(2.4)	(2.5)	(2.3)	(8.2)	(8.3)	(5.4)	(3.0)	(3.0)
10 PUDUKOTTAI	22496	19500	20925	18316	28274	35667	43441	40752	42971
	(4.8)	(4.2)	(4.5)	(3.9)	(6.1)	(7.7)	(9.3)	(8.7)	(9.2)
11 THANjavur	12783	14627	16997	16071	13347	19835	23367	29206	26108
	(1.7)	(1.8)	(2.1)	(2.0)	(1.6)	(2.4)	(2.8)	(3.6)	(3.2)
12 MADURAI-old	23262	22428	28027	24108	21576	69203	137315	98302	120444
	(2.2)	(1.8)	(2.3)	(1.9)	(1.7)	(5.5)	(10.8)	(7.4)	(9.2)
12 MADURAI-new	0	0	0	0	0	46071	30911	24886	28713
	0	0	0	0	0	(7.0)	(4.6)	(3.7)	(4.2)
13 ANNA	0	0	0	0	0	23132	106408	73416	91731
	0	0	0	0	0	(3.8)	(17.7)	(11.3)	(14.6)
14 RAMANATHAPURAM-old	87700	108483	126160	123546	132161	249497	234049	203869	232653
	(7.0)	(8.7)	(10.1)	(9.8)	(10.6)	(20.0)	(18.7)	(16.3)	(18.6)
14 RAMANATHAPURAM-new	0	0	0	0	40690	47840	35398	32732	40412
	0	0	0	0	(9.6)	(11.3)	(8.4)	(7.8)	(9.5)
15 KAMARAJAR	0	0	0	0	15418	112364	102987	79615	88923
	0	0	0	0	(3.6)	(26.6)	(24.4)	(18.8)	(21.0)
16 T.THIRUMAHANAR	0	0	0	0	76053	89293	97664	91522	103318
	0	0	0	0	(18.7)	(22.1)	(24.1)	(22.6)	(25.5)
17 TIRUNELVELI-old	105291	115870	115231	114439	113762	134269	153002	169386	177970
	(9.2)	(10.1)	(10.1)	(10.0)	(10.0)	(11.8)	(13.4)	(14.8)	(15.6)
17 TIRUNELVELI-new	0	0	0	0	0	0	108342	128033	138345
	0	0	0	0	0	0	(15.9)	(18.8)	(20.3)
18 CHIDAMBARAMAR	0	0	0	0	0	0	44660	41353	39625
	0	0	0	0	0	0	(9.7)	(9.0)	(8.6)
19 THE NILGIRIS	6303	4285	5492	5480	5470	5181	4570	3886	3750
	(2.5)	(1.7)	(2.2)	(2.2)	(2.2)	(2.2)	(1.8)	(1.5)	(1.5)
20 KANYAKUMARAI	447	347	349	1439	1271	1313	1322	1263	1073
	(0.3)	(0.2)	(0.2)	(0.8)	(0.7)	(0.8)	(0.8)	(0.7)	(0.6)
21 STATE	459109	487275	567802	547964	609897	835230	936256	845299	895074
	(3.5)	(3.7)	(4.4)	(4.2)	(4.7)	(6.4)	(7.2)	(6.5)	(6.9)

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APPENDIX 9: NET AREA SOWN (ha.)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	335976	342654	334468	326436	287020	338957	335908	349957	345225	330332
	(40.7)	(41.5)	(40.6)	(39.6)	(34.8)	(42.9)	(42.5)	(44.3)	(43.7)	(41.2)
3 SOUTH ARCOT	593424	609204	617211	585806	522717	540701	568120	575082	543694	590689
	(54.4)	(55.9)	(56.6)	(53.7)	(48.0)	(49.6)	(52.1)	(52.8)	(53.5)	(54.2)
4 NORTH ARCOT	538641	528906	529579	532925	528851	536824	543447	548720	531352	522226
	(43.8)	(43.0)	(43.0)	(43.3)	(43.0)	(43.6)	(44.2)	(44.6)	(43.2)	(42.4)
5 SALEM	405350	418082	427458	430094	396472	420990	402824	432268	434308	443382
	(47.0)	(48.5)	(49.6)	(49.8)	(46.0)	(48.8)	(46.7)	(50.1)	(50.4)	(51.4)
6 DHARMAPURI	406858	404712	405448	350012	377463	423616	413703	42176	444531	438661
	(42.3)	(42.0)	(42.1)	(36.3)	(39.2)	(44.0)	(43.0)	(44.1)	(46.2)	(45.5)
7 COIMBATORE-old	726880	769698	749113	735280	645595	698985	678017	735499	726617	716322
	(46.6)	(49.3)	(48.0)	(47.1)	(41.1)	(44.4)	(43.2)	(46.8)	(46.2)	(45.3)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	374502
	0	0	0	0	0	0	0	0	0	(50.0)
8 PERIYAR	0	0	0	0	0	0	0	0	0	341820
	0	0	0	0	0	0	0	0	0	(41.5)
9 TIRUCHIRAPALLI	753705	774090	616469	608772	542956	578660	580711	613911	607852	597279
	(52.9)	(54.1)	(55.4)	(54.7)	(48.8)	(52.0)	(52.3)	(55.2)	(54.7)	(53.7)
10 PUDUKOTTAI	0	0	212910	207123	163330	197060	196155	213473	207255	209424
	0	0	(45.7)	(44.4)	(35.0)	(42.3)	(42.1)	(45.8)	(44.5)	(44.9)
11 THANJAVUR	613365	619900	548080	553022	538590	550815	532533	551827	555661	560476
	(63.3)	(64.0)	(66.9)	(67.4)	(65.7)	(67.2)	(64.9)	(67.3)	(67.7)	(68.2)
12 MADURAI-old	583497	600773	608333	581472	531871	575410	563235	597298	585500	592200
	(46.3)	(47.6)	(48.2)	(46.1)	(42.0)	(45.5)	(44.4)	(47.2)	(46.2)	(46.8)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	610887	648025	653088	640746	476183	604687	612988	631514	621242	621283
	(49.2)	(52.2)	(52.5)	(51.6)	(38.1)	(48.4)	(49.0)	(50.5)	(49.7)	(49.7)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 T. THIRUMAHANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	465136	490873	487327	487737	399227	378009	442070	479834	467617	469469
	(40.7)	(43.0)	(42.7)	(42.7)	(35.0)	(33.1)	(38.7)	(42.9)	(40.9)	(41.1)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIDAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	54300	57301	56852	57294	58178	58949	57083	58976	58482	58721
	(21.3)	(22.5)	(22.3)	(22.5)	(22.9)	(23.2)	(22.4)	(23.2)	(23.0)	(23.1)
20 KANYAKUMARAI	81154	84327	85450	78618	83993	85565	81098	81991	81497	81549
	(48.6)	(50.5)	(51.2)	(47.1)	(50.3)	(51.2)	(48.5)	(49.0)	(48.7)	(48.7)
21 STATE	6169173	6347545	6331786	6175343	5553446	5989228	6006892	6295026	6250833	6232013
	(47.5)	(48.8)	(48.7)	(47.5)	(42.6)	(46.1)	(46.3)	(48.4)	(48.1)	(48.0)

NOTE: FIGURES IN BRACKETS INDICATE THE PERCENTAGES OF NET AREA SOWN TO TOTAL GEOGRAPHICAL AREA

APPENDIX 9:CONTD. NET AREA SOWN (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2 CHENNAI	279405	289309	243177	299775	310277	310749	245596	277578	274375
	(35.5)	(36.9)	(31.0)	(38.2)	(39.5)	(39.6)	(31.3)	(35.3)	(34.9)
3 SOUTH ARCOT	509257	557319	463083	529307	595638	595622	581276	568711	543456
	(46.6)	(51.1)	(42.5)	(48.6)	(54.7)	(54.6)	(53.3)	(52.2)	(49.9)
4 NORTH ARCOT	426767	438302	406695	502796	498467	505480	442378	432931	448321
	(34.8)	(35.6)	(33.0)	(41.1)	(40.7)	(41.3)	(36.1)	(35.4)	(36.6)
5 SALEM	348024	396854	353123	414148	397785	379638	394566	422544	430746
	(40.4)	(46.1)	(41.0)	(48.0)	(46.1)	(44.0)	(45.7)	(48.9)	(49.9)
6 DHARMAPURI	317758	367626	351683	395642	397552	409932	408889	407537	408188
	(32.9)	(38.2)	(36.5)	(41.1)	(41.3)	(42.8)	(42.7)	(42.6)	(42.6)
7 COIMBATORE-old	650840	684281	638364	686661	696002	671938	679408	681259	639849
	(41.4)	(43.5)	(40.6)	(43.6)	(44.3)	(42.7)	(43.4)	(43.5)	(40.7)
7 COIMBATORE-new	353490	366484	348423	364577	372364	358548	362521	347176	332375
	(47.2)	(48.9)	(46.5)	(48.7)	(49.7)	(47.9)	(48.8)	(46.7)	(44.5)
8 PERIYAR	297350	317800	289941	322084	323638	313390	316887	334083	307474
	(36.1)	(38.5)	(35.2)	(39.1)	(39.3)	(38.1)	(38.5)	(40.6)	(37.3)
9 TIRUCHIRAPALLI	499398	558813	532228	571671	558110	528935	544558	556266	522488
	(44.9)	(50.2)	(47.8)	(51.4)	(50.2)	(47.5)	(48.9)	(50.0)	(47.0)
10 PUDUKOTTAI	143141	182868	163640	199191	181223	198740	192832	195789	161367
	(30.7)	(39.2)	(35.1)	(42.7)	(38.8)	(42.6)	(41.3)	(42.0)	(34.6)
11 THANJAVUR	556107	552503	508505	533479	545926	513669	514711	505469	530819
	(67.7)	(67.3)	(61.9)	(65.0)	(66.5)	(62.6)	(62.7)	(61.5)	(64.6)
12 MADURAI-old	513098	573061	524081	571772	533701	511944	538691	608221	538622
	(40.5)	(45.3)	(41.4)	(45.2)	(42.1)	(40.4)	(42.5)	(45.9)	(41.3)
12 MADURAI-new	0	0	0	0	0	269790	282414	318910	305117
	0	0	0	0	0	(40.9)	(41.7)	(47.1)	(45.1)
13 ANNA	0	0	0	0	0	242154	256277	289311	233505
	0	0	0	0	0	(39.9)	(42.6)	(44.6)	(37.3)
14 RAMANATHAPURAM-old	544297	602496	546805	584742	516962	516784	513864	584485	488574
	(43.5)	(48.2)	(43.8)	(46.8)	(41.3)	(41.4)	(41.1)	(46.8)	(39.1)
14 RAMANATHAPURAM-new	0	0	0	0	195615	206018	203288	223317	193041
	0	0	0	0	(46.4)	(48.8)	(48.2)	(52.9)	(45.6)
15 KAMARAJAR	0	0	0	0	203790	186252	189627	216366	191587
	0	0	0	0	(48.2)	(44.1)	(44.9)	(51.2)	(45.3)
16 T.THIRUMAHTANAR	0	0	0	0	117557	124514	120949	144802	103946
	0	0	0	0	(29.0)	(30.8)	(29.9)	(35.8)	(25.7)
17 TIRUNELVELI-old	433626	399284	389590	417930	414543	404936	340489	384727	407306
	(38.0)	(35.0)	(34.2)	(36.7)	(36.3)	(35.5)	(29.8)	(33.7)	(35.7)
17 TIRUNELVELI-new	0	0	0	0	0	0	114477	15694	143266
	0	0	0	0	0	0	(16.8)	(22.2)	(21.0)
18 CHIDAMBARAMAR	0	0	0	0	0	0	226012	233033	264040
	0	0	0	0	0	0	(49.2)	(50.8)	(57.5)
19 THE NILGIRIS	58555	56290	57004	58212	60444	60324	68899	71382	69196
	(23.0)	(22.1)	(22.4)	(22.9)	(23.8)	(23.7)	(27.1)	(28.1)	(27.2)
20 KANYAKUMARAI	79781	81074	81049	80802	81622	82201	77762	81216	83337
	(47.7)	(48.5)	(48.5)	(48.3)	(48.8)	(49.1)	(46.5)	(48.6)	(49.8)
21 STATE	5360054	5740083	5259027	5846128	5788252	5690892	5543919	5778115	5546644
	(41.2)	(44.1)	(40.5)	(45.0)	(44.5)	(43.8)	(42.7)	(44.3)	(42.6)

APPENDIX 10:

AREA SOWN MORE THAN ONCE (ha.)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	126456	122107	118200	124572	91493	132149	144591	144733	147896	141262
	(15.3)	(14.8)	(14.3)	(15.1)	(11.1)	(16.7)	(18.3)	(18.3)	(18.7)	(18.0)
3 SOUTH ARCOT	160023	146401	117576	155363	103646	153816	159377	164410	167000	190549
	(14.7)	(13.4)	(10.8)	(14.3)	(9.5)	(14.1)	(14.6)	(15.1)	(15.3)	(17.5)
4 NORTH ARCOT	138293	174690	161430	175483	119518	133822	161126	186784	159636	170717
	(11.2)	(14.2)	(13.0)	(14.3)	(9.7)	(10.9)	(13.1)	(15.2)	(13.0)	(13.9)
5 SALEM	68719	70756	75664	70651	48965	58506	63221	77888	84998	87779
	(8.0)	(8.2)	(8.8)	(8.2)	(5.7)	(6.8)	(7.3)	(9.0)	(9.8)	(10.1)
6 DHARMAPURI	58772	56173	54143	115644	79958	46508	40029	107252	63484	64755
	(6.1)	(5.8)	(5.6)	(12.0)	(8.3)	(4.8)	(4.2)	(11.1)	(6.6)	(6.7)
7 COIMBATORE-old	109312	115274	135301	136666	91731	118180	90259	119783	139270	144985
	(7.0)	(7.4)	(8.7)	(8.8)	(5.8)	(7.5)	(5.7)	(7.6)	(8.8)	(9.2)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	54921
	0	0	0	0	0	0	0	0	0	(7.3)
8 PERIYAR	0	0	0	0	0	0	0	0	0	90064
	0	0	0	0	0	0	0	0	0	(10.9)
9 TIRUCHIRAPALLI	80570	76992	97401	87947	56498	79368	59526	70132	77992	89732
	(5.6)	(5.4)	(8.8)	(7.9)	(5.1)	(7.1)	(5.4)	(6.3)	(7.0)	(8.1)
10 PUDUKKOTTAI	0	0	12084	14787	7334	18446	13600	16550	19715	14886
	0	0	(2.6)	(3.2)	(1.6)	(4.0)	(2.9)	(3.6)	(4.2)	(3.2)
11 THANJAVUR	268940	299560	346974	366609	291145	325560	258688	334393	339424	335541
	(27.8)	(30.9)	(42.3)	(39.9)	(35.5)	(39.7)	(31.6)	(40.8)	(41.3)	(40.8)
12 MADURAI-old	70251	78215	78286	80771	67088	62538	57905	88589	81603	82238
	(5.5)	(6.2)	(6.2)	(6.4)	(5.3)	(4.9)	(4.6)	(7.0)	(6.5)	(6.5)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	13535	25448	23828	17654	14447	13849	14145	37746	29316	33913
	(1.0)	(2.0)	(1.9)	(1.4)	(1.2)	(1.1)	(1.1)	(3.0)	(2.3)	(2.7)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 T.THIRUMAHANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	86214	91812	100415	92261	84666	71911	47656	93086	96658	100359
	(7.5)	(8.0)	(8.8)	(8.1)	(7.4)	(6.3)	(4.2)	(8.2)	(8.5)	(8.8)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIDAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	284	76	75	55	54	1194	2891	1369	2565	3083
	(0.1)	0	0	0	0	(0.5)	(1.1)	(0.5)	(1.0)	(1.2)
20 KANYAKUMARAI	33464	36354	45827	35336	29727	30160	27162	30433	23840	26073
	(20.1)	(21.8)	(27.5)	(21.2)	(17.9)	(18.0)	(16.2)	(18.2)	(14.3)	(15.6)
21 STATE	1214833	1293888	1367177	1473809	1086270	1246007	1140176	1473148	1433397	1485273
	(9.3)	(9.9)	(10.5)	(11.3)	(8.3)	(9.6)	(8.8)	(11.3)	(11.0)	(11.4)

Note : Figures in brackets indicate the percentage of area sown more than once to total geographical area

APPENDIX 10:CONTD. AREA SOWN MORE THAN ONCE (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2 CHENNAI	93528	97346	63124	101267	100597	107816	38768	61131	51592
	(11.9)	(12.4)	(8.0)	(12.9)	(12.8)	(13.7)	(4.9)	(7.8)	(6.6)
3 SOUTH ARCOT	138681	149993	90476	180314	200142	199116	158292	141936	112124
	(12.7)	(13.8)	(8.3)	(16.5)	(18.3)	(18.3)	(14.5)	(13.0)	(10.3)
4 NORTH ARCOT	75883	87513	47512	125473	127430	135046	83703	100875	101294
	(6.2)	(7.1)	(3.9)	(10.3)	(10.4)	(11.1)	(6.8)	(8.2)	(8.3)
5 SALEM	40647	93629	65002	110906	111491	99484	79162	105380	90374
	(4.7)	(10.8)	(7.5)	(12.8)	(12.9)	(11.5)	(9.2)	(12.2)	(10.5)
6 DHARMAPURI	59837	83744	44172	72775	80397	53691	54424	53873	59650
	(6.2)	(8.7)	(4.6)	(7.5)	(8.3)	(5.6)	(5.7)	(5.6)	(6.2)
7 COIMBATORE-old	107234	106782	61661	81987	82802	59179	107398	98662	60540
	(6.8)	(6.8)	(3.9)	(5.2)	(5.3)	(3.8)	(6.9)	(6.3)	(3.9)
7 COIMBATORE-new	41003	46660	39920	34799	44577	20468	79185	53351	32308
	(5.5)	(6.2)	(5.3)	(4.6)	(6.0)	(2.7)	(10.7)	(7.2)	(4.3)
8 PERIYAR	66231	60122	21741	47188	38225	38711	28213	45311	28232
	(8.0)	(7.3)	(2.6)	(5.7)	(4.6)	(4.7)	(3.4)	(5.5)	(3.4)
9 TIRUCHIRAPALI.I	60816	59857	32436	50775	55915	41259	42443	34537	23318
	(5.5)	(5.4)	(2.9)	(4.5)	(5.0)	(3.7)	(3.8)	(3.1)	(2.1)
10 PUDUKOTTAI	9374	18979	6848	15004	13312	13091	18205	12956	10655
	(2.0)	(4.1)	(1.5)	(3.2)	(2.9)	(2.8)	(3.9)	(2.8)	(2.3)
11 THANJAVUR	339911	305165	223670	216613	368975	255868	289213	216431	234017
	(41.4)	(37.1)	(27.2)	(26.3)	(44.9)	(31.1)	(35.2)	(26.3)	(28.5)
12 MADURAI-old	65381	55292	49335	69552	48821	53553	29211	42625	68226
	(5.2)	(4.3)	(3.9)	(5.4)	(3.9)	(4.2)	(2.3)	(3.2)	(5.2)
12 MADURAI-new	0	0	0	0	0	40156	16965	29951	53285
	0	0	0	0	0	(6.1)	(2.5)	(4.4)	(7.9)
13 ANNA	0	0	0	0	0	13397	12246	12674	14941
	0	0	0	0	0	(2.2)	(2.0)	(2.0)	(2.4)
14 RAMANATHAPURAM-old	13877	14408	5532	9679	11448	9917	4859	16125	4693
	(1.1)	(1.1)	(0.4)	(0.7)	(0.9)	(0.8)	(0.4)	(1.3)	(0.4)
14 RAMANATHAPURAM-new	0	0	0	0	36	0	220	1024	852
	0	0	0	0	0	0	(0.1)	(0.2)	(0.2)
15 KAMARAJAR	0	0	0	0	8830	9365	4052	13843	3756
	0	0	0	0	(2.1)	(2.2)	(1.0)	(3.3)	(0.9)
16 T.THIRUMAHANAR	0	0	0	0	2582	552	587	1258	85
	0	0	0	0	(0.6)	(0.1)	(0.1)	(0.3)	0
17 TIRUNELVELI-old	81023	69652	56684	45175	72178	73081	44304	47535	60932
	(7.1)	(6.1)	(5.0)	(3.9)	(6.3)	(6.4)	(3.9)	(4.2)	(5.3)
17 TIRUNELVELI-new	0	0	0	0	0	0	36242	43172	43729
	0	0	0	0	0	0	(5.3)	(6.3)	(6.4)
18 CHIDAMBARAMAR	0	0	0	0	0	0	8052	4363	17203
	0	0	0	0	0	0	(1.8)	(0.9)	(3.8)
19 THE NILGIRIS	1149	1799	879	1048	1891	1785	473	1599	837
	(0.5)	(0.7)	(0.4)	(0.4)	(0.7)	(0.7)	(0.2)	(0.6)	(0.3)
20 KANYAKUMARAI	22124	25115	24118	18263	24558	25017	13975	16822	26063
	(13.2)	(15.0)	(14.4)	(10.9)	(14.7)	(15.0)	(8.4)	(10.0)	(15.6)
21 STATE	1109465	1169274	771449	1098831	1299957	1127903	964430	950487	904315
	(8.5)	(9.0)	(5.9)	(8.5)	(10.0)	(8.7)	(7.4)	(7.3)	(6.9)

APPENDIX 11: TOTAL CROPPED AREA (ha.)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1 MADRAS	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2 CHENNAI	462432	464761	452668	451008	378513	471106	480499	494690	493121	471594
	(56.0)	(56.3)	(54.9)	(54.7)	(45.9)	(59.6)	(60.8)	(62.6)	(62.4)	(60.1)
3 SOUTH ARCOT	753447	755605	734787	741169	626363	694517	727497	739492	750694	781238
	(69.1)	(69.3)	(67.4)	(68.0)	(57.5)	(63.7)	(66.7)	(67.9)	(68.8)	(71.6)
4 NORTH ARCOT	676934	703596	690982	708408	648369	670646	704573	735504	690988	692943
	(55.0)	(57.2)	(56.0)	(57.6)	(52.7)	(54.5)	(57.3)	(59.8)	(56.2)	(56.3)
5 SALEM	474069	488838	503122	500745	445437	479496	466045	510156	519306	530561
	(55.0)	(56.7)	(58.4)	(58.1)	(51.7)	(55.6)	(54.0)	(59.1)	(60.2)	(61.5)
6 DHARMAPURI	465630	460885	459591	465662	457421	470124	453732	531928	508015	503417
	(48.4)	(47.8)	(47.7)	(48.3)	(47.5)	(48.8)	(47.2)	(55.2)	(52.8)	(52.3)
7 COIMBATORE-old	836192	883972	884414	871946	738326	817165	768276	855282	865887	861307
	(53.6)	(56.7)	(56.7)	(55.9)	(46.9)	(51.9)	(48.8)	(54.4)	(55.0)	(54.8)
7 COIMBATORE-new	0	0	0	0	0	0	0	0	0	429423
	0	0	0	0	0	0	0	0	0	(57.3)
8 PERIYAR	0	0	0	0	0	0	0	0	0	431884
	0	0	0	0	0	0	0	0	0	(52.4)
9 TIRUCHIRAPALLI	834275	851082	713870	696719	599454	658028	640237	684043	685844	687011
	(58.5)	(59.5)	(64.2)	(62.6)	(53.9)	(59.1)	(57.6)	(61.5)	(61.7)	(61.8)
10 PUDUKOTTAI	0	0	224994	221920	170664	215506	209755	230023	226970	224310
	0	0	(48.3)	(47.6)	(36.6)	(46.3)	(45.0)	(49.4)	(48.7)	(48.1)
11 THANJAVUR	882305	919460	895054	919631	829735	876375	791221	886220	895085	896017
	(91.1)	(94.9)	(109.2)	(112.2)	(101.2)	(106.9)	(96.5)	(108.1)	(109.0)	(109.1)
12 MADURAI-old	653748	678988	686619	662243	598959	637948	620140	685887	667103	674438
	(51.8)	(53.8)	(54.4)	(52.5)	(47.3)	(50.3)	(49.0)	(54.2)	(52.7)	(53.3)
12 MADURAI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
13 ANNA	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14 RAMANATHAPURAM-old	624422	673473	676916	658400	490630	618536	627133	669260	650558	655196
	(50.2)	(54.2)	(54.4)	(53.0)	(39.3)	(49.5)	(50.1)	(53.5)	(52.0)	(52.4)
14 RAMANATHAPURAM-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
15 KAMARAJAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
16 T.THIRUMANJANAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
17 TIRUNELVELI-old	551350	582715	587742	579998	483893	449920	489726	572920	564275	569828
	(48.2)	(51.0)	(51.5)	(50.8)	(42.4)	(39.4)	(42.9)	(50.2)	(49.4)	(49.9)
17 TIRUNELVELI-new	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
18 CHIDAMBARAMAR	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
19 THE NILGIRIS	54584	57377	56927	57349	58232	60143	59974	60345	61047	61804
	(21.4)	(22.5)	(22.3)	(22.5)	(22.9)	(23.7)	(23.6)	(23.7)	(24.0)	(24.2)
20 KANVAKKUMARAI	114618	120681	131277	113954	113720	115725	108260	112424	105337	107622
	(68.7)	(72.3)	(78.7)	(58.3)	(68.2)	(69.2)	(64.7)	(67.2)	(63.0)	(64.4)
21 STATE	7384006	7641433	7688963	7649152	6639716	7235235	7147068	7768174	7684230	7717286
	(56.8)	(58.7)	(59.2)	(58.8)	(50.9)	(55.7)	(55.1)	(59.7)	(59.1)	(59.4)

NOTE: FIGURES IN BRACKETS INDICATE THE PERCENTAGES OF TOTAL CROPPED AREA TO TOTAL GEOGRAPHICAL AREA

APPENDIX 11:CONTD. TOTAL CROPPED AREA (ha.)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1 MADRAS	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2 CHENNAI	372933	386655	306301	401042	440874	418565	284364	338709	325967
	(47.4)	(49.3)	(39.0)	(51.1)	(52.3)	(53.3)	(36.2)	(43.1)	(41.5)
3 SOUTH ARCOT	647938	707312	553559	709621	795780	794738	739568	710647	655580
	(59.3)	(64.9)	(50.8)	(65.1)	(73.0)	(72.9)	(67.9)	(65.2)	(60.2)
4 NORTH ARCOT	502650	525815	454207	628269	625897	640526	526081	533806	549615
	(41.0)	(42.7)	(36.9)	(51.4)	(51.1)	(52.4)	(43.0)	(43.6)	(44.9)
5 SALEM	388671	490483	418125	525054	509276	479122	473728	527924	521120
	(45.1)	(56.9)	(47.5)	(60.8)	(59.0)	(55.5)	(54.9)	(61.1)	(60.4)
6 DHARMAPURI	377595	451370	395855	468417	477949	463623	463313	461410	467838
	(39.1)	(46.9)	(41.1)	(48.6)	(49.6)	(48.4)	(48.4)	(48.2)	(48.8)
7 COIMBATORE-old	758074	791066	700025	768648	778804	731117	786806	779921	700389
	(48.2)	(50.3)	(44.5)	(48.9)	(49.5)	(46.5)	(50.2)	(49.8)	(44.6)
7 COIMBATORE-new	394493	413144	388343	399376	416941	379016	441706	400527	364683
	(52.7)	(55.1)	(51.8)	(53.3)	(55.7)	(50.6)	(59.4)	(53.9)	(48.8)
8 PERIYAR	363581	377922	311682	369272	361863	352101	345100	379394	335706
	(44.1)	(45.8)	(37.8)	(44.8)	(43.9)	(42.8)	(41.9)	(46.1)	(40.7)
9 TIRUCHIRAPALLI	560214	618670	564664	622446	614025	570194	587001	590803	545806
	(50.4)	(55.6)	(50.7)	(55.9)	(55.2)	(51.2)	(52.8)	(53.1)	(49.1)
10 PUDUKKOTTAI	152515	201847	170488	214195	194535	211831	211037	208745	172022
	(32.7)	(43.3)	(36.6)	(45.9)	(41.7)	(45.4)	(45.3)	(44.8)	(36.9)
11 THANJAVUR	896018	857668	732175	750092	914901	769537	803924	721900	764836
	(109.1)	(104.4)	(89.1)	(91.3)	(111.4)	(93.7)	(97.9)	(87.8)	(93.1)
12 MADURAI-old	578479	628353	573416	641324	582522	565497	567902	650846	606848
	(45.7)	(49.6)	(45.3)	(50.6)	(46.0)	(44.7)	(44.8)	(49.1)	(46.6)
12 MADURAI-new	0	0	0	0	0	309946	299379	348861	358402
	0	0	0	0	0	(47.0)	(44.2)	(51.5)	(53.0)
13 ANNA	0	0	0	0	0	255551	268523	301985	248446
	0	0	0	0	0	(42.1)	(44.7)	(46.6)	(39.7)
14 RAMANATHAPURAM-old	558174	616904	552337	594421	528410	341301	518723	600610	493269
	(44.6)	(49.3)	(44.2)	(47.5)	(42.3)	(27.3)	(41.5)	(48.1)	(39.4)
14 RAMANATHAPURAM-new	0	0	0	0	195651	206018	203508	224341	193893
	0	0	0	0	(46.4)	(48.8)	(48.2)	(53.1)	(45.8)
15 KAMARAJAR	0	0	0	0	212620	195617	193679	230209	195343
	0	0	0	0	(50.3)	(46.3)	(45.8)	(54.5)	(46.2)
16 T.THIRUMAHANAR	0	0	0	0	120139	125066	121536	146060	104031
	0	0	0	0	(29.6)	(30.9)	(30.0)	(36.1)	(25.7)
17 TIRUNELVELI-old	514649	468936	446274	463105	486721	478017	384793	432262	468236
	(45.1)	(41.1)	(39.2)	(40.6)	(42.6)	(41.9)	(33.7)	(37.9)	(41.0)
17 TIRUNELVELI-new	0	0	0	0	0	0	150719	194866	186995
	0	0	0	0	0	0	(22.1)	(28.5)	(27.4)
18 CHIDAMBARAMAR	0	0	0	0	0	0	234074	237396	281243
	0	0	0	0	0	0	(51.0)	(51.7)	(61.3)
19 THE NILGIRIS	59704	50889	57883	59260	62335	62109	69372	72981	70033
	(23.5)	(22.8)	(22.8)	(23.3)	(24.5)	(24.4)	(27.3)	(28.7)	(27.5)
20 KANYAKUMARAI	101905	106189	105167	99065	106180	107218	91737	98038	109400
	(60.9)	(63.5)	(62.9)	(59.2)	(63.5)	(64.1)	(54.8)	(58.6)	(65.4)
21 STATE	6469519	6909357	6030476	6944959	7088209	6818795	6508349	6728602	6450959
	(49.7)	(53.1)	(46.4)	(53.9)	(54.5)	(52.5)	(50.1)	(51.6)	(49.5)

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