

REPORT ON DEMARCATION OF PRIORITY MICRO WATERSHEDS IN 4A2A (LOWER VAIGAI) AND 4A2B SUBCATCHMENTS (NON RVP), DINDIGUL, MADURAI, NAGAPATTINAM, PUDUKOTTAI, RAMANATHAPURAM, SHIVAGANGA, THANJAVUR, THENI AND THIRUCHIRAPALLI DISTRICTS OF TAMILNADU.

ABSTRACT

1. Survey area : 4A2A (LOWER VAIGAI) AND 4A2B SUBCATCHMENTS (NON RVP), DINDIGUL, MADURAI, NAGAPATTINAM, PUDUKOTTAI, RAMANATHAPURAM, SHIVAGANGA, THANJAVUR, THENI AND THIRUCHIRAPALLI DISTRICTS OF TAMILNADU
2. Location : 77°23' to 79°28'30" E longitude
9°18'20" to 10°44'15" N latitude
3. Total area surveyed : 15, 26,824 hectares
4. No. of microwatersheds : 1502
5. No. of microwatersheds in each watershed
- | | | | | | |
|-------|---|-----|-------|---|-----|
| 4A2A1 | - | 81 | 4A2B3 | - | 174 |
| 4A2A2 | - | 78 | 4A2B4 | - | 60 |
| 4A2A3 | - | 100 | 4A2B5 | - | 108 |
| 4A2A4 | - | 75 | 4A2B6 | - | 88 |
| 4A2A5 | - | 128 | 4A2B7 | - | 104 |
| 4A2B1 | - | 162 | 4A2B8 | - | 89 |
| 4A2B2 | - | 132 | 4A2B9 | - | 123 |
6. Agro climatic region : 10 (semiarid subtropical with excessive evapo-transpiration)
7. Type of survey : RR survey for priority delineation
8. Period of survey : December 1993 to July 1994
9. Base maps : 1:50,000 scale survey of India topographic maps
10. Toposheet nos. : 58 F/ 8, 11,12,15,16
58 G/9,13
58 J/3,4,7,8,10,11,12,14,15,16
58 K/1, 5,6, 9,10,11,13,14,15
58 N/2, 3, 4, 6, 7, 8
58 O/1, 2, 3,

11. Extent of area under different erosion intensity mapping units

Sl.No.	EIMU symbol	Area in ha.	(%)
1.	A1	22647	1.48
2.	A2	5914	0.39
3.	A3	761	0.05
4.	A4	7726	0.51
5.	A5	119	0.01
6.	A6	34	0.01
7.	CA1	544	0.04
8.	CA2	789	0.05
9.	CA3	29472	1.93
10.	CA5	9373	0.61
11.	CA6	1707	0.11
12.	CA7	1424	0.09
13.	CA8	2203	0.15
14.	G1	79989	5.24
15.	G2	18194	1.19
16.	G3	1723	0.11
17.	G4	1033	0.07
18.	G5	2892	0.19
19.	G6	16001	1.02
20.	G6.1	1193	0.10
21.	G7	5455	0.35
22.	G8	52301	3.43
23.	G9	24089	1.59
24.	G10	10016	0.66
25.	G10.1	21733	0.87
26.	G12	47561	3.13
27.	G12.3	670	0.04
28.	G13	15564	1.01
29.	G14	38739	2.54
30.	G14.1	3083	0.21

Sl.No.	EIMU symbol	Area in ha.	(%)
31.	G15	3589	0.24
32.	G16	16394	1.03
33.	G17	74370	4.92
34.	G18	29246	1.92
35.	G19	129662	8.49
36.	G20	1443	0.10
37.	G22	33459	2.14
38.	G24	14346	0.94
39.	G26	476475	31.27
40.	G27	1130	0.16
41.	G28	53201	3.38
42.	G30	923	0.06
43.	G31	1490	0.09
44.	LT1	13505	0.88
45.	LT2	19167	1.25
46.	LT3	12339	0.81
47.	LT4	20006	1.32
48.	LT5	2690	0.15
49.	LT6	157	0.01
50.	LT7	5559	0.36

Miscellaneous		
Marshy lands	1408	0.09
Aerodrome	128	0.01
Salt pan	1403	0.09
ROC	5725	0.39
Habitation	7946	0.50
River/stream	15415	1.01
Tank	162699	10.66
Total	1526824	100.0

12. Hydrological divisions

- a) Region - 4
- b) Basin - A
- c) Catchment - 4A2
- d) Subcatchments - 4A2A & 4A2B
- e) Watersheds - 14 (4A2A1 to A5 and 4A2B1 to B9)

13. Soil erosion hazard

Sl. No.	Erosion	Area in ha.	Percentage
1	None to slight	779605	51.06
2	Slight to moderate	185970	12.18
3	Moderate	365698	23.95
4	Severe	670	0.04
5	Severe to very severe	157	0.01
	Total	1332100	87.25
	Misc. lands	194724	12.75

14. Priority classification

Sl. No.	Priority category	Silt yield index	No. of MWS	Area in ha.	Percentage
1	Very high	1200 and above	65	63364	4.2
2	High	1100-1199	142	137315	9.0
3	Medium	1000-1099	209	208254	13.6
4	Low	900-999	228	243107	15.9
5	Very low	Less than 900	858	874784	57.3
		Total	1502	1526824	100.0

15. Salient features

1. Out of the total surveyed area 65 microwatersheds covering an area of 63364 ha. (4.2%) have been categorized as very high priority and 142 microwatersheds covering an area of 137315 ha. (9.0%) have been categorized as high priority.
2. In the surveyed area red soils have the maximum area of 691817 ha. covering 45.3% and black soils have the least area of 404826 ha. extent 6.9%
3. Distribution of area under different land use categories is maximum under irrigated agriculture, 539875 ha. (35.3%) followed by area under rainfed agriculture 378149 (24.8%), under miscellaneous land use 194724 (12.8%), non agricultural uses 180463 (11.8%), forest 169956 (11.1%) and least 63650 ha. (4.2%) under plantation.