

REPORT ON PRIORITIZATION OF SUBWATERSHEDS IN 4A1A (KARMANAIYAR, NAMBIYAR AND HANUMA) AND 4A1B (TAMBRAPARNI) SUBCATCHMENTS IN KANYAKUMARI, TIRUNELVELI AND TUTICORIN DISTRICTS, TAMILNADU

ABSTRACT

1. Survey area : 4A1A and 4A1B subcatchments in Kanyakumari, Tirunelveli and Tuticorin districts, Tamilnadu
2. Location : 77° 10' 15" - 78° 9' 30" East longitudes
8° 8' - 9° 12' 30" North latitudes
3. Total : 759279 hectares
4. Number of subwatersheds : 170
5. No. of subwatersheds in each watershed : 4A1A1 - 11, 4A1A2 - 18
4A1A3 - 18, 4A1B1 - 20
4A1B2 - 22, 4A1B3 - 29
4A1B4 - 27, 4A1B5 - 25
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 March 1994
9. Base maps : 1:50,000 Survey of India Topographic maps
10. Toposheet nos : 58 G/4, 8, 12, 16,
58 H/1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,
15, 16,
58 L/2, 58 L/3 (22 toposheets)
11. Extent of area under different erosion intensity mapping units

Sl.No.	EIMU symbol	Area in hectares	Percentage
1.	A1	2225	0.3
2.	A2	9649	1.2
3.	CA1	5274	0.7
4.	CA2	1010	0.1
5.	CA3	7128	0.9
6.	CD1	22418	2.9
7.	CD2	15724	2.0
8.	CD3	9248	1.2
9.	G1	82530	10.9

Sl.No.	EIMU symbol	Area in hectares	Percentage
10.	G2	3196	0.4
11.	G3	2750	0.4
12.	G5	11132	1.5
13.	G6	80	0.1
14.	G9	3397	0.4
15.	G10	22104	2.9
16.	G12	60459	8.0
17.	G13	59856	7.9
18.	G14	11123	1.5
19.	G16	5688	0.7
20.	G17	52217	6.9
21.	G18	13920	1.8
22.	G20	7349	1.0
23.	G21	265	0.1
24.	G22	19687	2.6
25.	G24	14903	2.0
26.	G25	984	0.1
27.	G26	177533	23.4
28.	G28	67660	8.9
29.	L3	944	0.1
30.	L4	737	0.1
Miscellaneous lands			
RCC	...	8727	1.2
River/stream		8199	1.1
Salt pan	...	1045	0.1
Tank	...	2358	5.6
Habitation		6202	0.8
Reservoir		1558	0.2
Total		759279	100.0

12. Hydrological divisions

a) Catchment	-	4A1
b) Subcatchments	-	4A1A and 4A1B (2)
c) Watersheds	-	8
d) Subwatersheds	-	170

13. Soil Erosion Hazard

Sl.No.	Erosion	Area in hectares	Percentage
1.	None to slight	2,98,719	39.3
2.	Slight to moderate	1,67,758	22.1
3.	Moderate	2,23,729	29.5
4.	Moderate to severe	984	0.1
Total		6,91,192	91.0
Misc. lands		68,089	9.0
Grand Total		7,59,279	100.0

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14. Priority classification:

Sl. No.	Priority category	Silt yield index	No. of SWS	Area in ha.	Percentage
1.	Very high	1200 and above	Nil	Nil	
2.	High	1100-1199	14	61020	8.0
3.	Medium	1000-1099	63	285137	37.6
4.	Low	900- 999	65	291196	38.4
5.	Very low	Less than 900	28	121926	16.0
Total			170	759279	100.0

15. Salient features

1. Out of 759279 hectares surveyed and reported, only two subwatersheds have been categorised as Very High and High priority status.

2. The extent of different kinds of soils is as follows:

1. Red soils	-	478083	- (63.0%)
2. Black soils	-	35574	- (4.7%)
3. Mixed soils	-	177533	- (23.3%)
4. Misc. lands	-	68089	- (9.0%)
Total		759279	(100.0%)