

ABSTRACT

1. Survey area : Vaigai catchment, (Part of 4A2 catchment) Theni, Madurai districts, Tamilnadu & Idukki dist., Kerala
2. Total area surveyed : 216288 hectares
3. Type of survey : Priority delineation
4. Base material : a) IRS-D LISS-III data  
b) Survey of India toposheet map
5. Agro Climatic region : 10
6. Scale of base map : 1:50,000
7. Period of survey : 25th Oct. 1999 to 28th Nov. 1999
8. Total number of Micro-watersheds : 260
9. Extent of area under different erosion intensity mapping units

Sl. EIMU No.	WATERSHEDS		TOTAL	PERCENTAGE
	4A2A6	4A2A7		
1. A1	-	6628	6628	3.0
2. A2	952	1550	2502	1.1
3. A3	840	1078	1918	0.9
4. B1	11721	13641	25362	11.7
5. B2	13792	16812	30604	14.2
6. B3	4262	1541	5803	2.7
7. B4	4830	9575	14405	6.7
8. B5	386	701	1087	0.5
9. B6	1550	1837	3387	1.6
10. B7	-	236	236	0.1
11. B8	25	552	577	0.3
12. B9	313	294	607	0.3
13. B10	222	110	332	0.1
14. B11	-	33	33	0.1
15. B12	-	484	484	0.2
16. B13	103	-	103	0.1
17. B14	3578	-	3578	1.6
18. B15	4603	-	4603	2.1
19. B16	929	-	929	0.4
20. B17	2229	-	2229	1.0

Sl. EIMU No.	WATERSHEDS		TOTAL	PERCENTAGE
	4A2A6	4A2A7		
21. 618	323	479	802	0.4
22. 619	651	276	927	0.4
23. 620	822	164	986	0.4
24. 621	1220	247	1467	0.7
25. 622	-	1350	1350	0.6
26. 623	-	45	45	0.1
27. 624	390	928	1318	0.6
28. 625	32	764	796	0.4
29. 626	890	1316	2206	1.0
30. 627	1683	620	2303	1.0
31. 628	2034	112	2146	1.0
32. 629	723	1059	1782	0.8
33. 630	80	712	792	0.4
34. 631	67	897	964	0.4
35. 632	-	87	87	0.1
36. 633	572	928	1500	0.7
37. 634	-	-	-	-
38. 635	-	232	232	0.1
39. 636	742	1107	1849	0.9
40. 637	-	1245	1245	0.6
41. 638	-	137	137	0.1
42. 639	959	8032	8991	4.1
43. 640	1860	5473	7333	3.4
44. 641	4949	8226	13175	6.0
45. 642	277	1371	1648	0.8
46. 643	6724	24751	31475	14.6
47. 644	2248	10691	12939	6.0
48. 645	-	1684	1684	0.8
49. 646	-	1038	1038	0.5
50. 647	281	1077	1358	0.6
51. 648	250	1485	1735	0.8
52. 649	-	460	460	0.2
53. 650	-	285	285	0.1
Total	78112	132350	210462	97.3
<u>Misc. lands</u>				
River/stream/ Tank	1534	3056	4590	2.1
Habitation	62	1174	1236	0.6
Total of Misc. lands	1596	4230	5826	2.7
Grand Total	79708	136580	216288	100
Percentage	36.9%	63.1%	100%	

10. Priority categorization of microwatersheds

Sl. Priority No. category	Silt index ranges	No. of Micro-watersheds	Total area in ha.	Total area (excluding Misc. area)
1. Very high	> 1300	13	8275 (3.8%)	8235 (3.9%)
2. High	1200-1299	27	21778 (10.1%)	21018 (10.0%)
3. Medium	1100-1199	43	34056 (15.7%)	33650 (16.0%)
4. Low	1000-1099	38	31063 (14.4%)	30946 (14.7%)
5. Very low	Less than 999	139	121116 (56.0%)	116613 (55.4%)
		260	216288 (100%)	210462 (100%)

11. Soil Erosion Hazard

Sl.No.	Erosion	Area in ha.	Percentage
1.	Slight	94603	43.8
2.	Slight to moderate	53849	24.9
3.	Slight to moderate wind erosion	285	0.1
4.	Moderate	17853	8.3
5.	Moderate to severe	19106	8.8
6.	Severe	24306	11.2
7.	Severe wind erosion	460	0.2
	Total	210462	97.3
	Misc. lands	5826	2.7
	Grand total	216288	100.0