

**REPORT ON PRIORITIZATION OF MICROWATERSHEDS IN 5A1A1 TO 5A1A9
WATERSHEDS OF 5A1A SUBCATCHMENT (NON RVP) IN KANYAKUMARI DISTRICT
OF TAMILNADU STATE, ALAPUZHA, KOLLAM AND THIRUVANANTHAPURAM,
DISTRICTS OF KERALA STATE.**

ABSTRACT

1. **Survey area** : 5A1A1 to 5A1A9 watersheds of 5A1A Subcatchment (Non RVP) in Kanyakumari district of Tamilnadu and Alapuzha, Kollam and Thiruvananthapuram districts of Kerala.
2. **Location** : 76°23' to 77°35' E Longitude
8°4' to 9°16' N Latitude
3. **Total area surveyed** : 662252 ha
4. **No. of microwatersheds** : 463
5. **Agro-climatic region** : Zone XII – The West Coast Plain and Hill region
6. **Type of survey** : Rapid Reconnaissance Survey for priority delineation of microwatersheds
7. **Period of survey** : December 2007-March 2008
8. **Base map** : Survey of India toposheets on 1:50,000 scale
9. **Toposheets** : 58C/7, 58C/8, 58C/12, 58C/16
58D/9, 58D/10, 58D/13, 58D/14, 58D/15
58H/1, 58H/2, 58H/3, 58H/4, 58H/5, 58H/6,
58H/7, 58H/8, 58H/11, and 58H/12.
10. **Hydrological divisions** : a) Region – 5
b) Basin – 5A
c) Catchment – 5A1
d) Subcatchment – 5A1A
e) Watersheds – 5A1A1 to 5A1A9
f) Subwatersheds- 5A1A1a, 5A1A1b
g) Microwatersheds- 5A1A1a1, 5A1A1a2.... etc

11. Extent of different Erosion Intensity Mapping Units

SLNo.	EIMU	Runoff Potential Value	Area in ha.	Percentage
1	A01	56	17502	2.64%
2	A02	56	34186	5.16%
3	CA1	59	5076	0.77%
4	CA2	56	11801	1.78%
5	CA3	56	34690	5.24%
6	CA4	56	2258	0.34%
7	G01	70	65537	9.90%
8	G02	74	7363	1.11%
9	G03	82	8720	1.32%
10	G04	73	2896	0.44%
11	G05	73	51715	7.81%
12	G06	76	19235	2.90%
13	G07	78	13635	2.06%
14	G08	70	387	0.06%
15	G09	63	13219	2.00%
16	G10	66	12073	1.82%
17	G11	64	9915	1.50%
18	G12	65	48588	7.34%
19	G13	65	691	0.10%
20	G14	62	21464	3.24%
21	G15	62	82938	12.52%
22	G16	59	38404	5.80%
23	G17	61	4345	0.66%
24	G18	60	2259	0.34%
25	G19	60	20020	3.02%
26	G20	57	3520	0.53%
27	G21	56	21406	3.23%
28	G22	58	6748	1.02%
29	LT01	70	3470	0.52%
30	LT02	61	13590	2.05%
31	LT03	59	33502	5.06%
32	TANK	0	11783	1.78%
33	HAB	0	25050	3.78%
34	RIVER	0	6073	0.92%
35	ROC	0	5182	0.78%
36	RES	0	5270	0.80%
		Grand Total	662252	100.00

12. Watershed wise distribution of area (ha) and number of microwatersheds under different priority categories

Priority Category	Watersheds									Total
	5A1A1	5A1A2	5A1A3	5A1A4	5A1A5	5A1A6	5A1A7	5A1A8	5A1A9	
Very High	5007	19939	2466	0	9764	7413	0	17187	0	61776
No. of MWS	3	13	2	0	8	6	0	13	0	45
High	10631	25502	12606	12456	35455	6694	2681	55218		161243
No. of MWS	9	19	10	8	24	5	2	38	0	115
Medium	21494	14450	26333	21966	26109	39061	41424	15823	6089	212749
No. of MWS	14	12	19	15	17	26	28	10	4	145
Low	39843	21002	11926	20166	24748	30975	23440	0	52768	224868
No. of MWS	27	16	9	13	18	24	15	0	35	157
Very Low	0	0	0	0	0	1616	0	0	0	1616
No. of MWS	0	0	0	0	0	1	0	0	0	1
TOTAL AREA	76975	80893	53331	54588	96076	85759	67545	88228	58857	662252

13. State and district wise distribution of area (ha) under different priority categories

State/Priority Category/No of MWS	Kerala			Tamilnadu	Total Area/ No. of MWS	Percentage
	Alapuzha	Kollam	Thiruvananthapuram	Kanya kumari		
Very High	0	23351	13479	24946	61776	9.3
No of MWS	0	18	11	16	45	
High	0	54044	71066	36133	161243	24.3
No of MWS	0	38	49	28	115	
Medium	0	96355	80450	35944	212749	32.1
No of MWS	0	64	55	26	145	
Low	31048	70737	59736	63347	224868	34.0
No of MWS	22	49	41	45	157	
Very Low	0	1616	0	0	1616	0.2
No of MWS	0	1	0	0	1	
Total	31048	246103	224731	160370	66252	100.0

14. Distribution of area under different priority:

SL No.	Priority Category	Runoff Potential Index range	No. of MWS	Area (ha)	Percentage
1	Very High	>70	45	61776	9.3
2	High	66-70	115	161243	24.4
3	Medium	61-65	145	212749	32.1
4	Low	56-60	157	224868	34.0
5	Very Low	<55	1	1616	0.2
		Grand total	463	662252	100.0

15. Distribution of area in different soil erosion classes

Sl No.	Type of Erosion	Area(ha)	Percentage
1	None to slight erosion	171711	25.9
2	Slight to Moderate erosion	91465	13.8
3	Moderate erosion	306988	46.4
4	Moderate to Severe erosion	38730	5.9
5	Misc	53358	8.1
	Total	662252	100.0