

**REPORT ON DEMARCATION OF PRIORITY MICROWATERHEDS  
IN 5A3A5 AND 5A3A8 WATERSHEDS IN 5A3A SUBCATCHMENT,  
IN CANNANORE AND KASARGOD DISTRICTS, KERALA; COORG  
AND SOUTH KANARA DISTRICTS, KARNATAKA.**

**ABSTRACT**

1. **Survey area** : 5A3A5 and 5A3A8 watersheds in 5A3A subcatchment, Cannanore and Kasargod districts, and Kerala; Coorg and South Kanara districts, Karnataka
2. **Location** : **5A3A5 watershed**  
75°2' to 75°34' E longitude  
11°12' to 12°26' N latitude  
  
**5A3A8 watershed**  
74°51' to 75°22' E longitude  
12°31' to 12°51' N latitude
3. **Total area surveyed** : 1,90,256 ha. (Karnataka 66,547 ha)  
(Kerala 1,23,709 ha)
4. **No. of microwatersheds** : 275 (Karnataka-98, Kerala-177)
5. **Agro-climatic region** : ZoneXII – The west coast plain and hill region
6. **Type of survey** : RR Survey for priority delineation
7. **Period of survey** : August, 2006 to October, 2006
8. **Base maps** : 1:50,000 Survey of India toposheets
9. **Toposheets** : 48 L/13, 48 L/14, 48 P/1, 48 P/2, 48 P/3,  
48 P/4, 48 P/6, 48 P/7, 48 P/8, 48 P/11
10. **Hydrological divisions** : a) Region – 5  
b) Basin – 5A  
c) Catchment – 5A3  
d) Subcatchment – 5A3A  
e) Watersheds – 5A3A5 and A8  
f) Subwatersheds-5A3A5a,b etc  
g) Microwatersheds-5A3A5a1,a2 etc

### 11. Areal extent of different Erosion Intensity Mapping Units

Sl. no	EIMU	Weightage Value	Delivery Ratio	Area (ha)	Area (%)
1	A1	13	0.58	347	0.18
2	A2	12	0.56	4270	2.24
3	CA1	13	0.57	489	0.26
4	CA2	11	0.51	5366	2.82
5	K1	20	0.83	3665	1.93
6	K2	15	0.70	30966	16.28
7	K3	19	0.80	4662	2.45
8	K4	14	0.68	4937	2.59
9	K5	15	0.70	1923	1.01
10	K6	18	0.74	2280	1.20
11	K7	13	0.62	3075	1.62
12	K8	17	0.72	6578	3.46
13	K9	12	0.59	7510	3.95
14	K10	13	0.62	761	0.40
15	K11	12	0.56	367	0.19
16	K12	16	0.67	3772	1.98
17	K13	11	0.55	8788	4.62
18	K14	12	0.55	172	0.09
19	K15	12	0.56	33	0.02
20	K16	12	0.57	1675	0.88
21	K17	12	0.55	12604	6.62
22	LT1	15	0.64	2822	1.48
23	LT2	15	0.63	4051	2.13
24	LT3	11	0.51	5	0.00
25	LT4	11	0.51	960	0.50
26	LT5	14	0.61	4475	2.35
27	LT6	16	0.66	2361	1.24

Sl. no	EIMU	Weightage Value	Delivery Ratio	Area (ha)	Area (%)
28	LT7	17	0.75	3822	2.01
29	LT8	13	0.66	2766	1.45
30	LT9	15	0.71	3559	1.87
31	LT10	17	0.73	10330	5.43
32	LT11	13	0.67	10287	5.41
33	LT12	17	0.71	672	0.35
34	LT13	13	0.62	2438	1.28
35	LT14	13	0.63	623	0.33
36	LT15	15	0.66	6684	3.51
37	LT16	16	0.68	8748	4.60
38	LT17	12	0.56	37	0.02
39	LT18	14	0.62	718	0.38
40	LT19	15	0.63	345	0.18
41	LT20	12	0.53	239	0.13
42	LT21	11	0.52	2472	1.30
43	LT22	12	0.56	10	0.01
44	LT23	11	0.54	11357	5.97
45	HAB			1729	0.91
46	RIVER			2512	1.32
47	ROC			1979	1.04
48	TANK			15	0.01
	<b>Total</b>			<b>190256</b>	<b>100.00</b>

**12. Distribution of area and number of micro watersheds in different priority categories**

Sl No.	Priority Categories	Watershedwise extent (ha) (number of micro watersheds)		Total	Percentage
		5A3A5	5A3A8		
1	<b>Very high</b> (SYI 1200 and above)	1321 (2)	1614 (2)	2935 (4)	1.5
2	<b>High</b> (SYI 1100-1199)	5753 (8)	6152 (8)	11905 (16)	6.3
3	<b>Medium</b> (SYI 1000-1099)	27139 (40)	22093 (31)	49232 (71)	25.9
4	<b>Low</b> (SYI 900-999)	21446 (31)	36021 (50)	57467 (81)	30.2
5	<b>Very low</b> (SYI below 900)	33373 (49)	35344 (54)	68717 (103)	36.1
	<b>Total</b>	89032 (130)	101224 (145)	190256 (275)	100.0

**13. Districtwise distribution of area in Karnataka and Kerala States**

Sl No	Priority Category	South kanara (Dakshina Kannada) district, Karnataka		Coorg (Kodagu) district, Karnaaka		Cannanore (Kannur) district Kerala		Kasargod district Kerala		Total	
		No. of MWS	Area (ha)	No. of MWS	Area (ha)	No. of MWS	Area (ha)	No. of MWS	Area (ha)	No. of MWS	Area (ha)
1	Very high	1	600	-	-	-	-	3	2335	4	2935
2	High	3	2306	-	-	-	-	13	9599	16	11905
3	Medium	22	16336	23	15128	-	-	26	17768	71	49232
4	Low	26	18698	-	-	8	5970	47	32799	81	57467
5	Very low	23	13479	-	-	3	1907	77	53331	103	68717
	<b>Total</b>	75	51419	23	15128	11	7877	166	115832	275	190256

#### 14. Distribution of area in different soil erosion classes

Sl. No.	Type of erosion	Area (ha)	Percentage
1	None to slight	35629	18.7
2	Slight to moderate	34954	18.4
3	Moderate	45507	23.9
4	Moderate to severe	17045	9.0
5	Severe	50886	26.7
	Misc.	6235	3.3
	Total	190256	100.0

#### 15. Salient features

- Four microwatersheds covering 2935 ha (1.5%) and sixteen micro watersheds covering 11905 ha (6.3%) fall under very high and high priority categories respectively.
- Out of 275 microwatersheds (190256 ha), 81 microwatersheds (57467 ha) and 103 microwatersheds (68717 ha) fall under low and very low priority categories respectively.
- Moderate to severe and severe erosion hazard are prevalent in the area covering 17045 ha (9%) and 50886 ha (26.7%) respectively.
- Hill side slope with a slope of 10-25% and 25-50% occupies 30621 ha (16.1%) and 76917 ha (46.4%) respectively.
- 74605 ha (39.2%) area is under rubber and cashew plantation and 44108 ha (23.2%) area is under moderately dense and dense forest.
- Out of 190256 ha, 155978 ha constituting 82% is under deep to very deep red soils
- Out of 190256 ha, 72471 ha (38.1%) area is poorly managed to unmanaged.