

REPORT ON PRIORITIZATION OF MICROWATERSHEDS IN 5A3B1 TO 5A3B8 WATERSHEDS OF 5A3B SUBCATCHMENT (NON RVP) IN CHICKMAGALUR, DAKSHINA KANNADA, HASSAN, KODAGU, SHIMOGA AND UDUPI DISTRICTS, KARNATAKA.

ABSTRACT

1. **Survey area** : 5A3B1 TO 5A3B8 watersheds of 5A3B subcatchment(NON RVP) in Chickmagalur, Dakshin Kannada, Hassan, Kodagu, Shimoga & Udupi districts, Karnataka.
2. **Location** : 74° 41' to 75° 48' E Longitude
12° 29' to 13° 36' N Latitude
3. **Total area surveyed** : 6,79,886ha
4. **No. of microwatersheds** : 953
5. **Agro-climatic region** : ZoneXII – The West Coast Plain and Hill Region
6. **Type of survey** : Rapid Reconnaissance Survey for priority delineation of microwatersheds
7. **Period of survey** : April 2006 to May 2007
8. **Base maps** : 1:50,000 Survey of India toposheets
9. **Toposheets** : 48k/10, 48k/11, 48k/12, 48/k/14, 48/k/15, 48/k/16
48/l/13
48/O/2, 48/O/3, 48/O/4, 48/O/8, 48/O/9
48P/1, 48P/2, 48P/5, 48P/6, 48P/9, 48P/10, 48P/11
48P/13 and 48P/14
10. **Hydrological divisions** : a) Region – 5
b) Basin – 5A
c) Catchment – 5A3
d) Subcatchment – 5A3B
e) Watersheds – 5A3B1 TO 5A3B8
f) Subwatersheds- 5A3B1a, 5A3B1b etc
g) Microwatersheds- 5A3B1a1, 5A3B1a2 etc

11.Extent of different erosion intensity mapping units

SLNo.	EIMU	Weightage Value	Delivery Ratio	Area in ha.	Percentage
1	CA1	10	0.50	904	0.1%
2	CA2	12	0.55	12276	1.8%
3	CA3	11	0.52	6334	0.9%
4	CA4	10	0.50	842	0.1%
5	G1	11	0.56	85012	12.5%
6	G2	11	0.55	45677	6.7%
7	G3	10	0.52	23380	3.4%
8	G4	12	0.58	7344	1.1%
9	G5	11	0.54	21144	3.1%
10	G6	11	0.54	52446	7.7%
11	G7	11	0.54	10518	1.6%
12	G8	12	0.57	9118	1.3%
13	G9	12	0.58	8697	1.3%
14	G10	11	0.54	1258	0.2%
15	G11	11	0.53	49978	7.4%
16	G12	11	0.53	8742	1.3%
17	G13	11	0.53	1062	0.2%
18	G14	10	0.52	13648	2.0%
19	G15	11	0.52	30808	4.5%
20	G16	11	0.53	7705	1.1%
21	G17	13	0.58	26576	3.9%
22	G18	11	0.53	41656	6.1%
23	G19	13	0.57	44737	6.6%
24	LT1	11	0.53	881	0.1%
25	LT2	10	0.51	2847	0.4%
26	LT3	10	0.51	1711	0.3%

Sl.No.	EIMU	Weightage Value	Delivery Ratio	Area in ha.	Percentage
27	LT4	11	0.54	9382	1.4%
28	LT5	10	0.51	4677	0.7%
29	LT6	12	0.56	4282	0.6%
30	LT7	11	0.54	23166	3.4%
31	LT8	11	0.54	18457	2.7%
32	LT9	11	0.52	20565	3.0%
33	LT10	11	0.53	30416	4.5%
34	LT11	11	0.53	9029	1.3%
35	LT12	11	0.53	276	0.04%
36	LT13	11	0.52	6403	0.9%
37	LT14	11	0.52	8546	1.3%
38	HAB			9497	1.4%
39	Marshy Lands			478	0.07%
40	ROC			4753	0.7%
41	RIVER			14516	2.1%
42	TANK			130	0.02%
43	Water Logged Area			12	0.0%
Grand Total				679886	100.00

12. Distribution of area (ha) and number of microwatersheds in different priority categories

Sl no.	Priority category	5A3B1	5A3B2	5A3B3	5A3B4	5A3B5	5A3B6	5A3B7	5A3B8	Total	Percentage
1	Very low (SYI below 900)	51415 (67)	107354 (143)	61231 (102)	109780 (153)	88764 (125)	104703 (153)	79869 (114)	67374 (96)	679886 (953)	100
	Total area	51415 (67)	107354 (143)	70627 (102)	109780 (153)	88764 (125)	104703 (153)	79869 (114)	67374 (96)	679886 (953)	100

13. Districtwise distribution of area

Priority category	Chickmagalur		Dakshina kannada		Hassan		Kodagu (Coorg)		Shimoga		Udupi		Total no. of mws	Total area (ha)
	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)	No. of MWS	Area (ha)		
Very low	22	15529	530	383937	65	45458	23	17386	2	1120	311	216456	953	679886
Total	22	15529	530	383937	65	45458	23	17386	2	1120	311	216456	953	679886

14. Distribution of area in different soil erosion classes

Sl.No	Erosion	Area(ha)	Percentage
1	Slight erosion	138824	20.4
2	Slight to moderate erosion	118753	17.5
3	Moderate erosion	328231	48.3
4	Moderate to severe erosion	33243	4.9
5	Severe erosion	31449	4.6
	Misc	29386	4.3
	Total	679886	100.0

15. Salient features

- All the 953 microwatersheds have been categorized under very low priority category
- Moderate to severe and severe erosion hazard are prevalent over an area of 33,243ha (4.9%) and 31,449ha (4.6%) respectively.
- Among different physiography met in the area, hill side slopes (10-50%) occupy maximum area 3,06,101ha(45%).
- Out of three landscapes such as alluvium, granite gneiss and laterite occurring in the area, granite gneiss landscape occupies nearly 75% of the area. i.e,4,89,506ha (72%) while alluvium landscape occupies very meager area i.e, 20,356ha (3%).
- Nearly 2,18,995ha (32.2%) area is under rubber and mixed plantations and 2,94,008ha (43.3%) area is under moderately dense and dense forest.
- Deep to very deep soils occupies 75 % of the total surveyed area.