

Report on Demarcation of Priority Microwatersheds in 4H3D Subcatchment (Subarnarekha Catchment), East and West Medinipur district of West Bengal and Balasore district of Orissa

ABSTRACT

1. **Survey Area** : 4H3D Subcatchment (Subarnarekha Catchment) in the Water Resource Region-4, East and West Medinipur districts of West Bengal and Balasore district of Orissa
2. **Location** : 87⁰ 20' to 88⁰ 03' E Longitude and 21⁰ 33' to 22⁰ 06' N Latitude
3. **Total Area** : 2,40,142ha
4. **Period of field visit** : February and March 2008
5. **Type of Survey** : Rapid Reconnaissance Survey using Remote Sensing Technique
6. **Base Material** : Survey of India Toposheets (1:50,000) and IRS-P6 LISS-III Precision Geo-coded FCC(3, 2, & 1) Satellite Imagery (1:50,000)
7. **Agro climatic zone** : Lower Gangetic plain (zone no-4) as per national planning commission's classification.

8. Extent of different Runoff Potential Mapping Units:

Sl.No	RPMU	Runoff Potential Value	Balasore (Orissa)	(West Bengal)		Total Area (ha.)	Area (%)
				East Medinipur	West Medinipur		
1	AE01	58	451	1220		1671	0.7
2	AE02	57	555	2059		2614	1.09
3	AE03	55	1404	4737		6141	2.56
4	AL01	58		948		948	0.39
5	AL02	63		2179		2179	0.91
6	AL03	57		7087		7087	2.95
7	AL04	59		76649	5631	82280	34.26
8	AL05	59		30877	2384	33261	13.85
9	AL06	56		61454	4015	65469	27.26
10	AL07	58		3530		3530	1.47
11	AL08	64		1842		1842	0.77
12	CA01	62	462	695		1157	0.48
13	CA02	56	1632	1162		2794	1.16
14	CA03	56	949	2457		3406	1.42
15	CA04	53		2893		2893	1.2
16	RI(River)			19341		19341	8.05
17	T(Tank)			19		19	0.01
18	W(Waterbody)			149		149	0.06
19.	SP(Salt Pan)			1864		1864	0.78
20.	FI(Fishery)			1497		1497	0.62
Grand Total			5453	222659	12030	240142	100

- 9. Hydrological Divisions:** Water Resource Region (4)
 Basin (4H)
 Catchment (4H3)
 Subcatchment (4H3D)
 Watersheds (4H3D1, 2,)
 Subwatersheds (4H3D 1a,b, .c..., 4H3D 2a, b, .c...)
 Microwatersheds (4H3D 1a1..., 4H3D 2a1, ...)

10. Soil Erosion Hazard:

Sl. No	Erosion Class	Districts			Total Area (ha.)	%
		Balasore	East Medinipur	West Medinipur		
		Orissa	West Bengal			
1.	None to slight erosion	949	120600	8015	129564	53.95
2.	Slight to Moderate erosion	1632	67351	4015	72998	30.4
3.	Moderate erosion	1959	7744		9703	4.04
4.	Moderate to Severe erosion	913	4094		5007	2.09
5.	Misc.		22870		22870	9.52
Total		5453	222659	12030	240142	100

11. Priority Categorization :

Sl. No.	Priority Category	No. of Microwatershed	Area (ha.)	%
1	Very High(65 and above)	-	-	-
2	High (60-64)	52	47396	19.74
3	Medium (55-59)	224	192089	79.99
4	Low (50-54)	1	657	0.27
5	Very Low (below 50)	-	-	-
Grand Total		277	240142	100.00