

**Report on Demarcation of Priority Microwatersheds in 3B3E sub-catchment (Disang–Tisa) of 3B3 catchment, Brahmaputra basin in Sibsagar, Dibrugarh districts of Assam, Tirap district of Arunachal Pradesh and Mon District of Nagaland**

***ABSTRACT***

1.	<b>Survey Area</b>	:	3B3E subcatchment of 3B3 catchment - Dimall (3B3E1), Dival (3B3E2), Disang (3B3E3), Takang (3B3E4) and Tisa (3B3E5) watershed of Brahmaputra basin in Sibsagar, Dibrugarh district of Assam, Tirap district of Arunachal Pradesh and Mon district of Nagaland
2.	<b>Location and Extent</b>	:	94 <sup>0</sup> 21' to 94 <sup>0</sup> 45' E Longitude and 27 <sup>0</sup> 14' to 27 <sup>0</sup> 39' N Latitude
3.	<b>Total Area and surveyed and mapped</b>	:	426839 ha
4.	<b>Agronomic zone</b>	:	Eastern Himalayan Region (II) as per planning Commission
5.	<b>Kind of survey</b>	:	Rapid Reconnaissance Survey
6.	<b>Period of field visit</b>	:	March, 2009 to April, 2009
7.	<b>Base Material</b>	:	Survey of India Toposheets (1:50,000) and IRS-P6 LISS-III Precision Geo-coded FCC(4, 3, & 2) Satellite Imagery (1:50,000)

**8. Areal Extent of different Erosion Intensity Mapping Units**

Sl.No.	RPMU	Runoff Potential Value	Area in ha.	Area(%)
1	AC01	58	1520	0.36%
2	AC02	61	16854	3.95%
3	AL01	56	65449	15.33%
4	AL02	58	47961	11.24%
5	AL03	56	41354	9.69%
6	AL04	61	8351	1.96%
7	AL05	58	3138	0.74%
8	AL06	58	7942	1.86%

Sl.No.	RPMU	Runoff Potential Value	Area in ha.	Area(%)
9	AL07	56	2797	0.66%
10	AL08	59	1171	0.27%
11	AL09	55	187	0.04%
12	AL10	57	195	0.05%
13	AL11	59	4236	0.99%
14	SH01	69	3407	0.80%
15	SH02	61	615	0.14%
16	SH04	59	426	0.10%
17	SH05	69	1695	0.40%
18	SH06	78	1957	0.46%
19	SH07	67	3847	0.90%
20	SH08	76	10885	2.55%
21	SH09	63	49948	11.70%
22	SH10	95	8813	2.06%
23	SH11	92	4355	1.02%
24	SH12	84	7945	1.86%
25	SH13	77	5644	1.32%
26	SH14	69	25877	6.06%
27	SH15	70	11657	2.73%
28	SH16	79	3484	0.82%
29	SH17	72	4744	1.11%
30	SH18	68	3656	0.86%
31	SH19	70	4870	1.14%
32	SH20	75	4206	0.99%
33	SH22	65	1728	0.40%
34	SH23	86	10612	2.49%
35	SH24	80	2065	0.48%
36	SH25	75	11831	2.77%
37	SH26	80	6472	1.52%
38	SH27	63	8656	2.03%
39	SH28	58	11027	2.58%
40	HA (Habitation)	0	1985	0.47%
41	RI (River)	0	13214	3.10%
42	WB (Waterbodies)	0	63	0.01%
<b>Grand Total</b>			<b>426839</b>	<b>100.00</b>

## 9. Hydrological Divisions :

- i. Water Resource Region (3)
- ii. Basin (3B)
- iii. Catchment (3B3)
- iv. Subcatchment (3B3E)
- v. Watersheds (3 B3E1,2,3, 4.....)
- vi. Subwatersheds (3 B3E1a.b.c.....3B3E4a.b.c.....)
- vii. Microwatersheds (3 B3E1a1., 3 B3E4a1,..)

## 10. Soil Erosion Hazard:

Sl. No.	Erosion Class	Area in ha.	Percentage
1	None to slight erosion	89531	20.98
2	Slight to Moderate erosion	117371	27.5
3	Moderate erosion	116119	27.20
4	Moderate to Severe erosion	49133	11.51
5	Severe erosion	39423	9.24
6	Miscl. Land	15262	3.58
<b>Total</b>		<b>426839</b>	<b>100.00</b>

## 11. Priority Categorization

Sl. No.	Priority Category	No.of Microwatersheds	Area in ha.	Percentage
1	Very High (above 70)	107	117008	27.41
2	High (66-70)	74	75083	17.59
3	Medium (61-65)	46	45086	10.56
4	Low (56-60)	201	185736	43.52
5	Very Low (55 & below)	2	3926	0.92
<b>Grand Total</b>		<b>430</b>	<b>426839</b>	<b>100.00</b>

## 12. District and statewise Priority of Microwatersheds:

Priority Category	Assam		Nagaland	Arunachal Pradesh	Area in ha.	% Area
	Dibrugarh	Sibsagar	Mon	Tirap		
Very High	1996	4107	46551	64354	117008	27.41
High		2693	18400	53990	75083	17.59
Medium	79	13981	12787	18239	45086	10.56
Low	63127	121492	1117		185736	43.52
Very Low	512	3414			3926	0.92
<b>Total</b>	<b>65714</b>	<b>145687</b>	<b>78855</b>	<b>136583</b>	<b>426839</b>	<b>100.00</b>

## 11. Salient Features:

- 3B3E subcatchment has been subdivided into 430 microwatersheds following the delineation and codification method outlined in Watershed Atlas of India (1:1 M scale).
- Out of 430 micro-watersheds comprising an area of 426839 ha, 107 micro-watersheds covering an area of 117008 ha accounting for 27.41% of the sub-catchment and 74 micro-watersheds covering 75083 ha accounting for 17.59% of the sub-catchment belong to “very high” and “high” priority categories respectively. Both the categories accounting for 45 % of survey area need immediate attention for soil water conservation treatment in order to check the soil detachment for over all development of the area.
- Tirap district of Arunachal Pradesh has maximum extent of very high as well as high priority areas i.e.64354 ha (15.08%) and 53990(12.65%) respectively followed by Mon district of Nagaland which has very high and high priority areas of 46551 ha ( 10.90%) and 18400ha.(4.30%) respectively.
- About 122293 ha (23.64%) of the survey area is unmanaged to poorly managed while 114926 ha. (26.92%) area is moderately managed.
- Severely eroded lands occupy 39423 ha (9.23%) while moderately to severely eroded land covering 49133 ha (11.51%) that need proper soil water conservation practices.