

Report on Prioritisation of Micro-Watershed in Indravati R.V.P Catchment (Part of 4E2 Catchment) Bastar and Dantewara districts of Chhattisgarh

ABSTRACT

1. **Survey area** : 4E2D 5, 6, 7 & 8 Watersheds of Indravati Catchment, Bastar and Dantewara districts of Chhattisgarh .
2. **Total area mapped** : 4, 53,845 ha.
3. **Geographical Location** : 18⁰35' to 19⁰02' N Latitude
80⁰42'30" to 81⁰46' E Longitude
4. **Agro Climatic Region** : Chhattisgarh plateau zone (Zone No.10) as per National Planning Commission.
5. **Type of Survey** : Rapid Reconnaissance Survey.
6. **Period of Survey** : December'2000 to April ' 2001
7. **Base map used** : Survey of India Toposheet on 1:50,000 scale

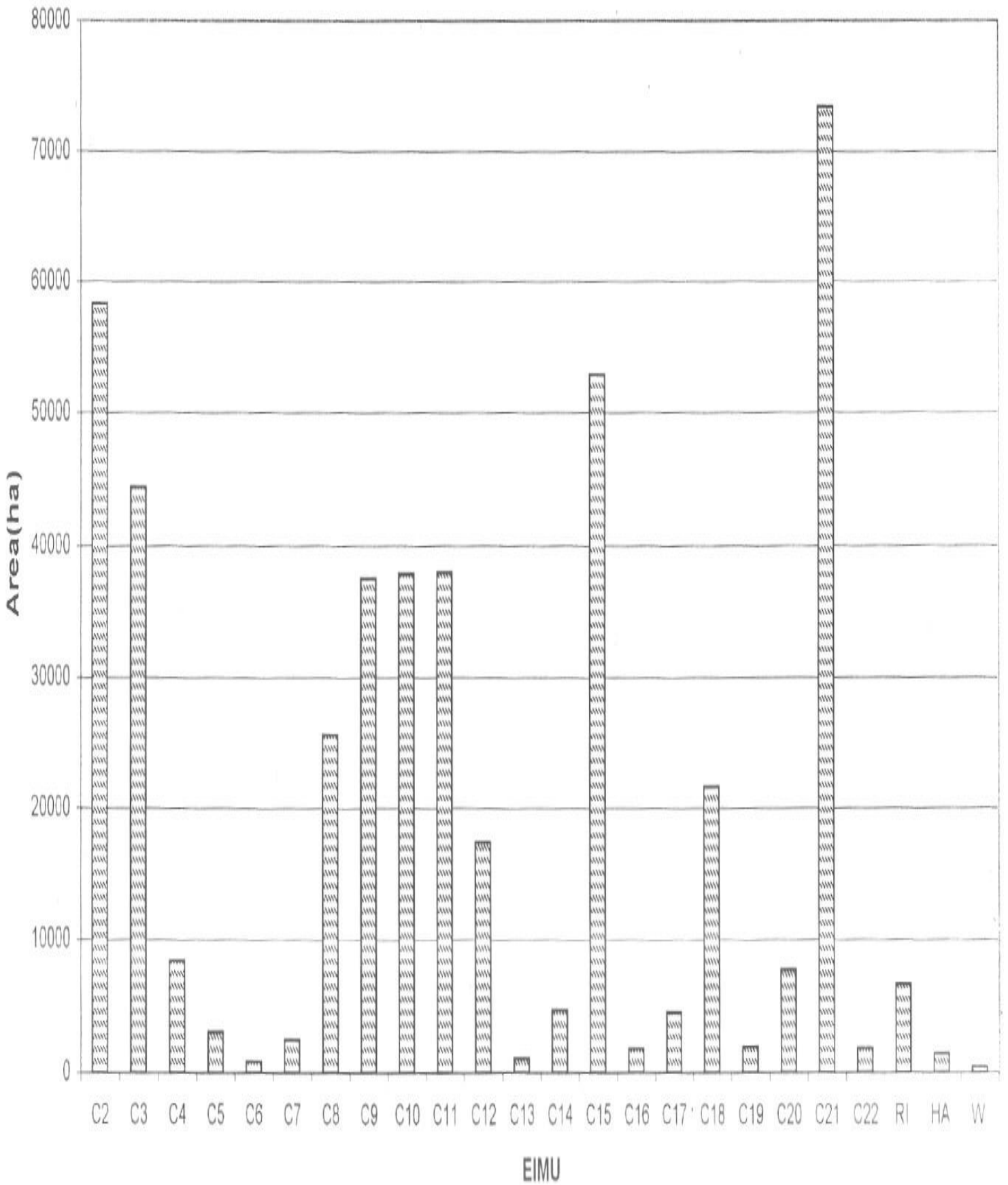
8. Extent of Area under different Erosion Intensity Mapping Units

Sl.No.	EIMU	Weightage Value	Delivery Ratio	Area (ha.)	Area(%)
1	C2	15	0.65	58280	12.84
2	C3	16	0.70	44410	9.79
3	C4	16	0.72	8398	1.85
4	C5	15	0.65	3097	0.68
5	C6	16	0.68	836	0.18
6	C7	16	0.68	2487	0.55
7	C8	17	0.64	25514	5.62
8	C9	15	0.54	37516	8.27
9	C10	15	0.59	37876	8.35
10	C11	15	0.52	37974	8.37
11	C12	17	0.73	17350	3.82
12	C13	15	0.65	1088	0.24
13	C14	16	0.68	4770	1.05
14	C15	12	0.56	52860	11.65
15	C16	13	0.58	1852	0.41
16	C17	14	0.61	4572	1.01
17	C18	14	0.61	21541	4.75
18	C19	13	0.60	1954	0.43
19	C20	18	0.70	7742	1.71
20	C21	14	0.61	73368	16.17
21	C22	15	0.64	1809	0.40
22	RI (River)	0	0.00	6694	1.47
23	HA (Habitation)	0	0.00	1423	0.31
24	W (water bodies)	0	0.00	434	0.10
Grand Total				453845	100.00

9. Districtwise distribution of areas under different Erosion Intensity Mapping Units

Sl. No.	EIMU	Weightage Value	Delivery Ratio	Bastar District				Dantewara District				Total Area	Total area%
				4E2D5	4E2D6	4E2D7	4E2D8	4E2D5	4E2D6	4E2D7	4E2D8		
1	C2	15	0.65		713		4384	17326	17504	13499	4854	58280	12.84
2	C3	16	0.70		2253	2566	3455	10313	8746	11697	5380	44410	9.79
3	C4	16	0.72			3155		20		5223		8398	1.85
4	C5	15	0.65		39		201	1608	454	795		3097	0.68
5	C6	16	0.68				58		30		748	836	0.18
6	C7	16	0.68			619	1237	185	54	205	187	2487	0.55
7	C8	17	0.64		279	125	6756	1076	7555	197	9526	25514	5.62
8	C9	15	0.54		405	1243	2083	29378	2990	1046	371	37516	8.27
9	C10	15	0.59					37270	318	199	89	37876	8.35
10	C11	15	0.52		669	4856	3557	4806	7757	13220	3109	37974	8.37
11	C12	17	0.73		171	2400	293	4137	2977	7013	359	17350	3.82
12	C13	15	0.65			422		161	184	126	195	1088	0.24
13	C14	16	0.68		166	880	255	1084	170	2071	144	4770	1.05
14	C15	12	0.56		351	594	1667	19532	22766	484	7466	52860	11.65
15	C16	13	0.58		100	133		257	842		520	1852	0.41
16	C17	14	0.61				128	1285	1834	1325		4572	1.01
17	C18	14	0.61			1358		8125	5706	6044	308	21541	4.75
18	C19	13	0.60					1791	84	79		1954	0.43
19	C20	18	0.70		61	2083			735	4800	63	7742	1.71
20	C21	14	0.61		895	11544	1387	6546	16813	36183		73368	16.17
21	C22	15	0.64		38	3	74	234	625	393	442	1809	0.40
22	RI (River)					384	692	1315	2180	840	1283	6694	1.47
23	HA (Habitation)					108			127	1188		1423	0.31
24	W (Water bodies)					3		222	91	49	69	434	0.10
GrandTotal					6140	32476	26227	146671	100542	106676	35113	453845	100.00

Extent of area under different Erosion Intensity Mapping Units



10. Priority Categorisation

Sl.No	Priority Category & Range	No.of Microwatersheds	Area (ha.)	%
1	Very High (1100 & above)	4	3161	0.70
2	High (1000-1099)	69	68553	15.10
3	Medium (900-999)	170	181767	40.05
4	Low (800-899)	171	162665	35.84
5	Very Low (Below 800)	40	37699	8.31
Grand Total		454	453845	
100.00				

11. District wise distribution of area under different Priority Categories

Sl. No.	Priority Category & Range	Bastar			Dantewara			Grand Total	
		No. of M/W		Area (ha)	No. of M/W		Area (ha)	No. of M/W	Area (ha)
		Full	Part		Full	Part			
1.	Very High (above 1100)	-	1	562	3	1	2599	4	3161
2.	High (1000-1099)	16	9	19528	44	9	49025	69	68553
3.	Medium (900-999)	27	9	31675	134	9	150092	170	181767
4.	Low (800-899)	12	1	12836	158	1	149829	171	162665
5.	Very Low (Below 800)	1	-	860	39	-	36839	40	37699
Grand Total		56	20		378	20		454	453845

12. Watershed wise distribution of area under different Priority Categories

Sl. No.	Priority Category & Range	4E2D5		4E2D6		4E2D7		4E2D8		Grand Total
		No. of M/W	Area (ha)	No. of M/W	Area (ha)	No. of M/W	Area (ha)	No. of M/W	Area (ha)	
1.	Very High (above 1100)	1	793	-	-	3	2368	-	-	3161
2.	High (1000-1099)	10	9983	13	11107	27	27285	19	20178	68553
3.	Medium (900-999)	34	32247	34	33738	77	87516	25	28266	181767
4.	Low (800-899)	87	82931	52	48650	23	21983	9	9101	162665
5.	Very Low (Below 800)	22	20717	15	13187	-	-	3	3795	37699
Grand Total		154	146671	114	106682	130	139152	56	61340	453845

13. Salient Features of the area:

The survey area consists of 454 micro-watersheds, spreading over 4,53,845 ha. Out of the total, only 4 micro-watersheds come under very high priority, covering only 3161 ha. (0.7 %) and 69 micro-watersheds are in high priority (68553 ha. Or 15.10 %), leaving all other micro-watersheds under medium to very low priority.

Major area (52.04 % land) is under forest which is followed by agriculture (30.22 %), waste and barren land (10.51 %), shrubs or bushes (4.46 %) and open scrub (0.24 %) respectively.

Moderately eroded and moderate to severely eroded lands together constitute 81.48 percent of the survey area which requires urgent soil and water conservation measures.

Very shallow to shallow and shallow to moderately deep soils occupy 4.87% and 25.98 % of the survey area respectively.

Moderate to strong, strong to moderately steep and steep slope, together cover 28.54 % of the survey area. These lands are unfavorable for agricultural practices.

Nearly 5.51 % of the area is unmanaged and 35.19 % of land is poorly managed which need appropriate conservation measures and integrated land use management.