

REPORT ON PRIORITIZATION OF MICRO-WATERSHEDS IN 5E2A1, 5E2A2, 5E2A4, 5E2A6, 5E2A7 and 5E2B1 WATERSHEDS OF MAHI ANAS R.V.P. SUB CATCHMENT, PANCHMAHAL (GUJARAT), BANASWARA AND DUNGARPUR (RAJASTHAN) AND JHABUA (MADHYA PRADESH)

ABSTRACT

1. Survey Area : 5E2A & 5E2B Mahi-Anas R.V.P. Sub catchment, Panchmahal district of Gujarat, Banswara & Dungarpur districts of Rajasthan and Jhabua district of M.P.
2. Location : a) Latitude 22° - 30' to 23° - 28' N.
b) Longitude 73° - 47' to 74° - 32' E.
3. Agro climatic zone : 13 (Gujarat plains and hill region)
4. Total Area Surveyed : 425441 ha.
5. Type of Survey : Rapid Reconnaissance Survey for Prioritization of Microwatersheds for soil conservation work.
6. Period of Survey : December, 2007 to January, 2008
7. Base Map used : Survey of India topographical maps of 1:50,000 scale.
8. Hydrological Sub division : a) Region – ‘5’ All the drainage flowing into Arabian Sea.
b) Basin - ‘5E’ Mahi River Basin
c) Catchment – ‘5E2’Kadana Dam to Jakham confluence.
d) Sub-Catchment – 5E2A, 5E2B Mahi Anas Subcatchment.
e) Watersheds – 5E2A1 to A7 and 5E2B1
f) Subwatersheds – 97
g) Microwatersheds – 558

9. Priority Categorization:-

S. No.	Priority Code	No. of Micro-watersheds	Area in ha.	Percentage
1.	Very High (1400& above)	95	71004	16.69
2.	High (1300 – 1399)	102	76906	18.08
3.	Medium (1200 – 1299)	111	84261	19.81
4.	Low (1100 – 1199)	91	70463	16.56
5.	Very Low (Below 1100)	159	122807	28.86
Total		558	425441	100.00

10. Distribution of area under different watersheds

S.No.	Watershed Code	No. of Microwatersheds	Area in ha	Area in %
1	5E2A1	96	74245	17.5
2	5E2A2	67	49342	11.6
3	5E2A4	147	112644	26.5
4	5E2A6	109	84365	19.8
5	5E2A7	80	57256	13.5
6	5E2B1	59	47589	11.2
Grand Total		558	425441	100.0

11. Watershed wise number of Priority of Micro-watersheds

WATERSHED	Very High	High	Medium	Low	Very Low	TOTAL
5E2A1	4	7	14	15	56	96
5E2A2	10	12	9	10	26	67
5E2A4	6	15	27	26	73	147
5E2A6	1	7	14	19	68	109
5E2A7	0	17	23	27	13	80
5E2B1	1	15	15	14	14	59
Grand Total	24	73	102	111	250	558

12. State wise Distribution of Priority of Micro-watersheds in the Area (ha)

State	Very High	High	Medium	Low	Very Low	TOTAL
Gujarat	27412 (40)	30995 (45)	33878 (48)	44206 (59)	100723 (135)	237214 (327)
Rajasthan	31641 (48)	26296 (38)	29303 (40)	18078 (26)	19161 (24)	124479 (176)
Madhya Pradesh	11951 (19)	19615 (31)	21080 (32)	8179 (13)	2923 (6)	63748 (101)
Grand Total	71004 (107)	76906 (114)	84261 (120)	70463 (98)	122807 (165)	425441 (604)

Note: Number of microwatersheds are given in parenthesis.

13. Extent of different Erosion Intensity Mapping Units

Sl.No.	EIMU	Weightage Value	Delivery Ratio	Area in ha.	Area (%)
1	B01	15	0.67	922	0.22%
2	B03	17	0.69	294	0.07%
3	B04	21	0.82	129	0.03%
4	B05	21	0.86	1797	0.42%
5	B06	21	0.89	3065	0.72%
6	B07	18	0.71	2121	0.50%
7	B08	19	0.79	3422	0.80%
8	B09	20	0.94	5522	1.30%
9	B10	19	0.83	3342	0.79%
10	B11	19	0.76	1257	0.30%
11	B12	19	0.80	7342	1.73%
12	B13	15	0.69	347	0.08%
13	B14	16	0.61	513	0.12%
14	B15	18	0.74	1304	0.31%
15	B17	18	0.74	277	0.07%
16	B18	18	0.77	15369	3.61%
17	B19	16	0.63	6588	1.55%
18	B20	17	0.68	10226	2.40%

Sl.No.	EIMU	Weightage Value	Delivery Ratio	Area in ha.	Area (%)
19	B21	14	0.60	11927	2.80%
20	B22	18	0.71	1295	0.30%
21	LS01	19	0.75	851	0.20%
22	LS02	16	0.59	674	0.16%
23	LS03	16	0.62	920	0.22%
24	LS04	16	0.64	10401	2.44%
25	LS05	15	0.62	2967	0.70%
26	LS06	19	0.77	2232	0.52%
27	LS07	17	0.70	1963	0.46%
28	PH01	20	0.81	10347	2.43%
29	PH02	21	0.89	2578	0.61%
30	PH03	21	0.87	1207	0.28%
31	PH04	19	0.75	10387	2.44%
32	PH05	20	0.79	11920	2.80%
33	PH06	20	0.81	6740	1.58%
34	PH07	19	0.84	9461	2.22%
35	PH08	19	0.72	4125	0.97%
36	PH09	19	0.78	5937	1.40%
37	PH10	19	0.77	27870	6.55%
38	PH11	18	0.76	7636	1.79%
39	PH12	18	0.76	11548	2.71%
40	PH13	16	0.67	2510	0.59%
41	PH14	18	0.78	56400	13.26%
42	PH15	15	0.65	10056	2.36%
43	PH16	15	0.62	35155	8.26%
44	PH17	14	0.60	35228	8.28%
45	PH18	14	0.58	58709	13.80%
46	Misc	0	0.00	20560	4.83%
	Grand Total			425441	100.00

Table14 : District wise Area (ha) under different Priority Categories

Priority Category	No of MWS	TOTAL AREA	% AREA	BANS WARA	DUNGAR PUR	JHABUA	PANCH MAHALS
Very High	107	71004	16.69	24530 (39)	7111 (9)	11951 (19)	27412 (40)
High	114	76906	18.08	16460 (24)	9836 (14)	19615 (31)	30995 (45)
Medium	120	84261	19.81	17651 (26)	11652 (14)	21080 (32)	33878 (48)
Low	98	70463	16.56	13747 (20)	4331 (6)	8179 (13)	44206 (59)
Very Low	165	122807	28.87	13847 (18)	5314 (6)	2923 (6)	100723 (135)
Total	604	425441	100.01	86235	38244	63748	237214

Note: Number of microwatersheds are given in parenthesis.