

**Report on Prioritisation of Micro-watersheds in Lower Banas direct draining (2D2B), Bandi - Mashi (2D2C) and partly Dain (2D2D) sub-catchment of Banas FPR (2D2) catchment, Ajmer, Bhilwara, Jaipur, Sawai Madhopur, Bundi and Tonk districts, Rajasthan**

**A B S T R A C T**

- **Survey area** : Lower Banas direct draining (2D2B), Bandi - Mashi (2D2C) and partly Dain (2D2D) sub-catchment of Banas FPR (2D2) catchment, Ajmer, Bhilwara, Jaipur, Sawai Madhopur, Bundi and Tonk districts, Rajasthan
- **Location** : Latitude 25° - 42' to 27° - 13' N  
Longitude 74° - 47' to 76° - 45' E
- **Total area** : 12, 49, 298 ha.
- **Period of survey** : December, 1997 to July, 1999
- **Type of survey** : Rapid Reconnaissance Survey for Priority Delineation
- **Base material** : Survey of India topographical maps on 1: 50, 000 scale
- **Areal Extent of Different Erosion Intensity Mapping Units**

Sl. No.	EIMU	Run-off Potential Weightage value	Area (ha)	Percentage
1	A1	57	15297	1.22
2	A2	59	69861	5.59
3	A3	62	47426	3.80
4	A4	62	8785	0.70
5	A5	64	40754	3.26
6	A6	67	16599	1.33

Sl. No.	EIMU	Run-off Potential Weightage value	Area (ha)	Percentage
7	A7	65	375	0.03
8	A8	67	425	0.03
9	A9	67	11825	0.95
10	A10	60	5233	0.42
11	A11	63	300	0.02
12	A13	56	1713	0.14
13	A14	65	2325	0.19
14	A15	58	350	0.03
15	A16	67	16983	1.36
16	A17	72	14406	1.15
17	A18	67	5110	0.41
18	A19	78	24788	1.98
19	A20	68	250	0.02
20	A21	57	14592	1.17
21	AE1	57	37706	3.02
22	AE2	59	80704	6.46
23	AE3	54	490	0.04
24	AE4	65	14402	1.15
25	C1	67	125	0.01
26	C2	76	325	0.03
27	C6	57	4300	0.34
28	C7	63	6465	0.52
29	C8	71	487	0.04

Sl. No.	EIMU	Run-off Potential Weightage value	Area (ha)	Percentage
30	C9	68	2170	0.17
31	C10	74	225	0.02
32	E2	61	450	0.04
33	E3	49	500	0.04
34	E4	61	6120	0.49
35	E5	58	3117	0.25
36	E6	56	5750	0.46
37	E7	61	1827	0.15
38	E8	69	6705	0.54
39	E9	54	3905	0.31
40	E10	54	30061	2.41
41	E11	52	500	0.04
42	E12	54	1412	0.11
43	E13	59	4025	0.32
44	E14	59	7425	0.59
45	E15	52	3774	0.30
46	E16	55	49550	3.97
47	G1	86	10	0.00
48	G2	87	315	0.03
49	G3	75	621	0.05
50	G4	74	1995	0.16
51	G5	61	150	0.01
53	G7	64	1835	0.15
54	GN1	88	35	0.00

Sl. No.	EIMU	Run-off Potential Weightage value	Area (ha)	Percentage
55	GN2	83	37	0.00
56	GN3	76	1210	0.10
57	GN4	73	425	0.03
58	GN5	74	4415	0.35
59	GN6	64	41330	3.31
60	GN7	62	138643	11.10
61	GN8	71	7790	0.62
62	GN9	64	4832	0.39
63	GN10	59	835	0.07
64	GN11	58	4845	0.39
65	GN12	60	71627	5.73
66	GN13	62	103305	8.27
67	GN14	74	5208	0.42
68	GN15	69	15979	1.28
69	GN16	77	13635	1.09
70	GN17	65	1525	0.12
71	GN18	68	2715	0.22
72	GN19	71	925	0.07
73	Q1	57	235	0.02
74	Q2	67	1060	0.08
75	Q3	78	1685	0.13
76	Q4	91	3125	0.25
77	Q5	96	1175	0.09

Sl. No.	EIMU	Run-off Potential Weightage value	Area (ha)	Percentage
78	Q6	78	1054	0.08
79	Q7	53	1175	0.09
80	Q8	63	1225	0.10
81	S1	57	1985	0.16
82	S2	65	555	0.04
83	S4	82	17170	1.37
84	S5	90	1480	0.12
85	S6	97	805	0.06
86	S7	67	1685	0.13
87	S8	79	4775	0.38
88	S9	65	240	0.02
89	S10	63	13037	1.04
90	S11	62	6789	0.54
91	S12	66	3530	0.28
92	S13	62	350	0.03
93	S15	61	40176	3.22
94	S16	65	97282	7.79
95	S17	70	13042	1.04
96	S18	66	2990	0.24
97	S19	75	4062	0.33
98	SN1	80	425	0.03
99	SN3	72	140	0.01
100	SN4	79	188	0.02

Sl. No.	EIMU	Run-off Potential Weightage value	Area (ha)	Percentage
101	SN12	68	955	0.08
102	SN16	65	38	0.00
103	SN22	61	1147	0.09
104	SN25	63	815	0.07
105	M1	18759	1.50	
106	M2	8363	0.67	
107	RI	3622	0.29	
<b>Total</b>	<b>1249298</b>	<b>100.0</b>		

➤ **Hydrological division of the survey area**

(a)	Water resource	-	Ganga -2
(b)	Basin	-	Chambal - 2D
(c)	Catchment	-	2D2
(d)	Sub-catchments	-	I Lower Banas Right bank of direct draining (2D2B)  II. Left Bank of Banas - Bandi - Mashi - 2D2C  III. Left Bank of Banas - Partly Dain - 2D2D
(e)	Watersheds	-	2D2B1, 2D2B2, 2D2B3, 2D2B4 (part), 2D2C1, 2D2C2, 2D2C3, 2D2C4, 2D2C5, 2D2C6, 2D2C7 and 2D2D1 (part)
f	Sub-watersheds	-	144
g	Micro-watersheds	-	990

➤ **Distribution of area under different priority categories**

Sl. No	Priority category	Run-off Potential Index Range	No. of Micro-watersheds	Area in ha	Percentage
1.	Very high	Above 70	34	33905	2.71
2.	High	66-70	167	188466	15.08
3.	Medium	61-65	594	772776	61.86
4.	Low	56-60	160	203334	16.28
5.	Very low	Below - 56	35	50817	4.07
		<b>Total</b>	<b>990</b>	<b>12,49,298</b>	<b>100.0</b>

➤ **Salient Features**

- Nearly 17.79% of the total area of 2D2B, 2D2C and partly 2D2D sub-catchment of Banas catchment falls under very high and high priority categories.
- Nearly 77.61% of the reported area is under cultivation, 4.34% under forest; 15.59% under open scrubs and grasses and remaining 2.46% area is under miscellaneous (water bodies + habitation, etc) land use.
- Only 30.26 % area is moderate to well managed whereas 25.02% area is moderately managed, 25.96% area is poorly to moderately managed, 3.32% area is poorly managed and remaining 12.98% area is unmanaged
- Nearly 54.71% area is subjected to moderate to very severe gully erosion hazards.
- About 57.10% of the total area is under very deep, 28.32% area is under deep to very deep, 8.24% area is under moderately deep to deep and remaining area of about 3.88% is under shallow to very shallow soils.