

Report on Detailed Soil Survey and Land-use of 2D2A1m, 2D2A1m' and 2D2A1n Sub-watershed of Morel Sub-catchment (2D2A) of Banas Catchment (2D2) in Tehsils Karoli and Sapotra of Karoli District of Rajasthan State.

ABSTRACT

1. **Surveyed Area** : 2D2A1m, 2D2A1m' and 2D2A1n Sub-watersheds of Morel Sub-catchment (2D2A) of Banas Catchment (2D2) in Tehsils Karoli and Sapotra of Karoli District of Rajasthan State
2. **a) Geographical Extent** : 26° 16' to 26° 26' N - Latitude and 73° 53' to 73° 59' E - Longitude
- b) Agro-Climatic Region** : Central Plateau and Hills Region (VIII)
- c) Agro-Ecological Region** : No - 4 Northern plain and central high land hot semi arid eco region with growing period 90 - 150 days
- d) Agro-Climatic Zone** : RJ5 Semi Arid Eastern Plain Zone of Rajasthan
- e) Physiography** : Eastern Plain Region, Aravali Ranges & Hill System
3. **Type of Survey** : Detailed Soil Survey
4. **Period of Survey** : 21st December, 2000 to 23rd March, 2001

5. Soil Series mapped under different Subwatersheds:

S. No.	Name of Soil Series	Area (ha)			Total	Percentage
		2D2A1m	2D2A1m'	2D2A1n		
1.	Arab Ka Pura (AK)	98	235	156	489	4.54
2.	Baliawas (B)	4	287	910	1201	11.14
3.	Bawli (BW)	-	-	77	77	0.71
4.	Chobe Ke Guwari (CG)	57	-	-	57	0.53
5.	Ghanteshwar (GH)	719	69	225	1013	9.40
6.	Khoh (KH)	3934	1601	1064	6599	61.21
7.	Khohri (KR)	32	27	146	205	1.90
8.	Rajour (RJ)	-	6	78	84	0.78
9.	Roond Tizara (RT)	-	-	12	12	0.11
10.	Roopwas (R)	42	88	350	480	4.45
11.	Unchi Guwari (UG)	199	18	-	217	2.01
	Total	5085	2331	3018	10434	96.78
	<i>Habitation</i>	56	35	82	173	1.61
	<i>Nala</i>	71	28	25	124	1.15
	<i>River</i>	50	-	-	50	0.46
	Grand Total	5262	2394	3125	10781	100.0
	<i>Percentage</i>	48.82	22.21	28.99	100.0	100.0

6. Inventory of Land Capability Class

S. No.	Land Capability Class	Total Area (ha)	Percentage	Series Name
1.	II	1695	15.7	Arab Ka Pura, Baliawas, Bawli, Chobe - Ki - Guwari, Khohri
2.	III	385	3.6	Arab Ka Pura, Baliawas, Unchi Guwari
3.	IV	262	2.4	Arab Ka Pura, Isroda, Roond Tizara, Rajour
4.	VI	6599	61.2	Khoh
5.	VII	1493	13.9	Ghanteshwar, Roopwas
	Sub Total	10434	96.8	
	<i>Misc.</i>	347	3.2	
	Grand Total	10781	100.00	

7. Inventory of Erosion Classes

S. No.	Erosion Class	Total Area (ha)	Percentage	Series Name
1.	Nil to Slight (e1)	524	4.9	Baliawas, Bawli, Rajour, Khohri
2.	Moderate (e2)	1640	15.2	Arab Ka Pura, Baliawas, Bawli, Chobe-Ki-Guwari, Khohri, Rajour, Unchi Guwari
3.	Severe (e3)	8270	76.7	Arab Ka Pura, Ghanteshwar, Khoh, Roopwas, Roond Tizara
	Sub Total	10434	96.8	
	<i>Misc.</i>	347	3.2	
	Grand Total	10781	100.00	

8. Inventory of Slope Classes

S. No.	Slope Class	Total Area (ha)	Percentage	Series Name
1.	B (1 - 3 %)	1751	16.2	Arab Ka Pura, Baliawas, Bawli, Chobe-Ki-Guwari, Rajour, Khohri
2.	C (3 - 5 %)	413	3.8	Arab Ka Pura, Baliawas, Rajour, Unchi Guwari
3.	D (5 - 10 %)	6777	62.9	Arab Kapura, Khoh, Roond Tizara
4.	H (> 50 %)	1493	13.9	Ghanteshwar, Roopwas
	Sub Total	10434	96.8	
	<i>Misc.</i>	347	3.2	
	Grand Total	10781	100.00	

8. Salient Features

- i. An area of 2342 ha (21.7) is suitable for agriculture.
- ii. An area of 8092 ha is scrubby and forest land, as such, forest management should form an important part of the watershed management programme.
- iii. 8270 ha (76.7 %) is subjected to severe erosion which needs immediate attention for taking up various treatment plans.
- iv. Only 524 ha (4.9 %) is free from erosion.
- v. Miscellaneous uses such as habitation, nala and stream account for 3.2 % of the total area.