

Report on Detailed Soil Survey and Land Use of 5E2A4b1, 5E2A4b3, 5E2A4b4, 5E2A4b7, 5E2A4g2, 5E2A4g3, 5E2A4g5, 5E2A4g6, 5E2A4h3, 5E2A4h4 and 5E2A4h5 Micro-watersheds, Mahi-Anas Sub-catchment, District Banswara, Rajasthan.

A B S T R A C T

1. **Surveyed Area** : 5E2A4b1, 5E2A4b3, 5E2A4b4, 5E2A4b7, 5E2A4g2, 5E2A4g3, 5E2A4g5, 5E2A4g6, 5E2A4h3, 5E2A4h4 and 5E2A4h5 Micro-watersheds, Mahi-Anas Sub-catchment, District Banswara, Rajasthan.
2. **Location** : The microwatersheds lies between 23°8'33"to 23°18'54" N Latitude and 73°16'30" to 73°21'27"E Longitude.
3. **Total Surveyed Area:** **9,175 ha.**
4. **Number of Villages** : 66
5. **Type of Survey** : **Detailed Soil Survey.**
6. **Period of Survey** : December, 2011 to March, 2012
7. **Agro-climatic Zone** : 13 (Gujarat Plains & hill Region)
8. **Base map** : **Cadastral map 1:7000**
(Satellite image on similar scale for reference)

9. Distribution of Soil Series and their Extent of Area

Sl. No	Series Name	No. of Mapping Units	Total Area (ha)	Percentage (%)
1.	Borwani	3	425	4.6
2.	Dungra	3	1638	17.9
3	Jhirnia	3	1098	12.0
4.	Kamaliakheri	1	244	2.6
5.	Khajuria	3	557	6.1
6.	Mahudi	4	1094	11.9
7.	Phulpur	3	2219	24.2
8.	Sagbara	3	447	4.9
9.	Ved	3	1065	11.6
	Misc.	-	388	4.2
Total		26	9175	100.0

10. Area under different Soil Depth with percentage

Soil depth class	Area (ha)	Percentage (%)
Shallow	5376	58.6
Moderately deep	801	8.7
Deep	447	4.9
Very deep	2163	23.6
Misc.	388	4.2
Total	9175	100.0

11. Area under different Erosion Classes with their percentage

Erosion	Area (ha)	Percentage (%)
None to slight	1764	19.2
Moderate	1212	13.2
Severe	5811	63.4
Misc.	388	4.2
Total	9175	100.0

12. Area under various Land Capability Classes & their percentage

S. No	Land capability class	Area (ha)	Percentage (%)
1.	II s-1	1689	18.4
2.	II es-1	360	3.9
3.	IIIes-1	75	0.8
4.	IIIes -2	510	5.6
5.	IIIes-3	197	2.2
6.	IVes-1	145	1.6
7.	IVes-2	863	9.4
8.	IVes-3	580	6.3
9.	Vles-1	459	5.0
10.	Vles-2	1513	16.5
11.	Forest	2396	26.1
	Misc.	388	4.2
	Total	9175	100.0

Salient Points:

- Out of the total surveyed area of 9,175 ha, 5,376 ha (58.6%) is occupied by shallow soils, followed by 2,163 ha (23.6%) by very deep and 1,248 ha (13.6%) by moderately deep to deep soils.
- Around 3,857 ha (42.0%) area falls under strong to steep slopes (hilly area). 2,296 ha (25.0%) is under undulating terrain and the remaining 2,634 ha (28.7%) is under very gently sloping topography.
- Area suffers from severe erosion covering 5,811 ha (63.4%) area, needs immediate attention for soil conservation measures.