

Report on Detailed Soil Survey and Land Use of 5E2A1q3, q4, 5E2A4m3, r6, s4, t1, u1, u2, 5E2A6a1, a2, a3, n2, p3, p5, r1, r2, r3, r4 & r6 Micro Watersheds, Mahi-Anas Subcatchment, Districts Panchmahal & Dahod, Gujarat, District Banswara, Rajasthan and District Jhabua, Madhya Pradesh

A B S T R A C T

1. **Surveyed Area:** 5E2A1q3, 5E2A1q4, 5E2A4m3, 5E2A4r6, 5E2A4s4, 5E2A4t1, 5E2A4u1, 5E2A4u2, 5E2A6a1, 5E2A6a2, 5E2A6a3, 5E2A6n2, 5E2A6p3, 5E2A6p5, 5E2A6r1, 5E2A6r2, 5E2A6r3, 5E2A6r4 & 5E2A6r6 Micro Watersheds of Mahi-Anas Sub Catchment, Districts Panchmahal & Dahod, Gujarat, District Banswara, Rajasthan and District Jhabua, Madhya Pradesh.
2. **Location:** The microwatersheds lies between 22°03' to 23° 03' N Latitude and 74°4' to 74°21' E Longitude.
3. **Total Surveyed Area:** 14,992 ha.
4. **Number of Villages:** 64
5. **Type of Survey:** Detailed Soil Survey.
6. **Period of Survey:** December 2008 to April 2009
7. **Agro-climatic Zone:** 13 (Gujarat Plains & hill Region)
8. **Base map:** Cadastral maps (16": 1 mile scale).

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	382	2.6
2	Chandravan	3	139	0.9
3	Dhanarpatia	3	1604	10.7
4	Dungra	4	1262	8.4
5	Khajuri	4	291	1.9
6	Latipura	2	75	0.5
7	Liliamba	2	211	1.4
8	Limkheda	3	376	2.5
9	Mahudi	5	1414	9.4
10	Minakayor	1	174	1.2
11	Phulpura	6	3012	20.1
12	Punakota	5	3621	24.2
13	Sagbara	3	585	3.9
14	Ved	1	615	4.1
15	Wakota	2	594	4.0
	Misc Area	-	637	4.2
Total		47	14992	100.0

10. Area under different Soil Depth with percentage

Soil depth class	Area (ha)	Percentage (%)
Shallow	6620	44.2
Moderately deep	5655	37.8
Deep	796	5.3
Very deep	1284	8.5
Misc.	637	4.2
Total	14992	100.0

11. Area under different Erosion Classes with their percentage

Erosion	Area (ha)	Percentage (%)
None to slight	847	5.7
Moderate	2122	14.2
Severe	11386	75.9
Misc.	637	4.2
Total	14992	100.0

12. Area under various Land Capability Classes & their percentage

S. No	Land capability class	Area (ha)	Percentage (%)
1.	II e-1	626	4.2
2.	II s-1	847	5.6
3.	II es-1	542	3.6
4.	III es-1	194	1.3
5.	III es-2	86	0.6
6.	IVes-1	130	0.9
7.	VI es-1	1646	11.0
8.	VI es-2	362	2.4
9.	VI es-3	1562	10.4
10.	VI es-4	1508	10.4
11.	VII es1	340	2.3
12.	P/M	6512	43.4
	Misc.	637	4.2
	Total	14992	100.0

Salient Points:

- Out of the total surveyed area of 14,992 ha, 6620 ha (44.2%) is occupied by shallow soils, 5,655 ha (37.8%) by moderately deep and 2080 ha (13.8%) by deep to very deep soils.
- Around 7,895 ha (52.7%) area falls under strong to steep slopes (hilly area). 3870 ha (25.8%) is under undulating terrain and the remaining 2,284 ha (15.2%) is under nearly level to very gently sloping topography.
- Area suffers from severe erosion covering 11,386 ha (76.0%) area, needs immediate attention for soil conservation measures.