

**Report on Detailed Soil Survey and Land Use of 2D2C2a2, 2D2C2a4, 2D2C2b6, 2D2C2b7, 2D2C2b8, 2D2C2d2, 2D2C4c8, 2D2C4g2, 2D2C4j1, 2D2C4j3, 2D2C4j6, 2D2C6c6, 2D2C6q6, 2D2C6r2, 2D2C6r3, 2D2C6s1, 2D2C6t3, 2D2C6t5 Micro watersheds of Lower Banas (F.P.R.) Sub catchment (2D2C), Districts Jaipur, Tikawada and Tonk, state of Rajasthan.**

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

1. **Surveyed Area:** 2D2C2a2, 2D2C2a4, 2D2C2b6, 2D2C2b7, 2D2C2b8, 2D2C2d2, 2D2C4c8, 2D2C4g2, 2D2C4j1, 2D2C4j3, 2D2C4j6, 2D2C6c6, 2D2C6q6, 2D2C6r2, 2D2C6r3, 2D2C6s1, 2D2C6t3, 2D2C6t5 microwatersheds of Lower Banas (F.P.R.) Sub catchment (2D2C), District Jaipur, Tikawada and Tonk, Rajasthan.
2. **Location:** The micro watersheds lie between 26° 35' to 27° 14' N Latitude and 75° 0' to 75° 55' E Longitude.
3. **Total Surveyed Area:** 19,862 ha.
4. **Number of Villages:** 55
5. **Type of Survey:** Detailed Soil Survey.
6. **Period of Survey:** Dec. 2004 to April 2005 & Nov. 2009 to Feb. 2010
7. **Agro-climatic Zone:** 5 (Semi Arid Eastern Plain Zone under NARP)
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	Chausala	7	3374	17.0
2	Chomun	5	1307	6.6
3	Fatehpura	5	4123	20.8
4	Jogio Ka Bada	3	2128	10.7
5	Kishangarh	8	1373	6.9
6	Nanimalu	2	1429	7.2
7	Pitambari	2	135	0.7
8	Surkheda	3	1146	5.8
9	Tikawada	5	2289	11.5
10	Udaipur	2	1201	6.0
	Misc.	-	1357	6.8
	<b>Total</b>	42	19862	100.00

### 10. Area under different Soil Depth with percentage

Soil depth class	Area (ha)	Percentage (%)
Shallow	1281	6.5
Moderately deep	4803	24.2
Deep	2128	10.7
Very deep	10293	51.8
Misc.	1357	6.8
<b>Total</b>	19862	100.00

**11. Area under different Erosion Classes with their percentage**

Erosion	Area (ha)	Percentage (%)
None to slight	10402	52.4
Moderate	3939	19.8
Severe	4164	21.4
Misc.	1357	6.8
Total	19862	100.00

**12. Area under various Land Capability Classes & their percentage**

S. No	Land capability class	Area (ha)	Percentage (%)
1	II -1	1201	6.0
2	IIs-1	7490	37.7
3	IIs-1	1300	6.5
4	IIIs-1	1640	8.3
5	IIIs-1	1312	6.6
6	IIIs-2	259	1.3
7	IVes-1	2132	10.7
8	IVes-2	434	2.2
9	VIes-1	224	1.1
10	VIes-2	892	4.5
13	VIIes-1	12	0.1
14	Forest	1609	8.1
	Misc.	1357	6.8
Total.		19862	100.0

### 13. Area under different slope classes & their percentage

S. No.	Slope Class	Area (ha)	Percentage (%)
1.	Nearly level (0-1%) slope	3957	19.9
2.	Very Gently (1-3%) slope	8195	41.3
3.	Gently (3-5%) slope	4789	24.1
4.	Strong (10-25%) slope	434	2.2
5.	Steep (25-33%) slope	1118	5.6
6.	Very steep (33-50%) slope	12	0.1
7.	Misc.	1357	6.8
	Total	19862	100.0

#### Salient Points:

- Out of the total surveyed area of 19,862 ha, only 1,281 ha (6.4%) is occupied by shallow soils, 4,803 ha (24.2%) by moderately deep soils, 2,128 ha (10.7%) by deep soils and 10,293 ha (51.8%) by very deep soils.
- Around 1,564 ha (7.9%) area falls under strong to steep slopes (hilly area). 4,789 ha (24.1%) is under gentle slope and the remaining 12,152 ha (61.2%) is under nearly level to very gently sloping topography.
- Area suffering from severe erosion covering 4,164 ha (21.0%) area which needs immediate attention for soil conservation measures.