

# Report on Detailed Soil Survey and Land Use of 2A2E5s1 and 2A2E7n2 Subwatersheds of Maithan Dam Catchment (RVP), P.S. Jamua and Koderma of Giridih and Koderma Districts, Jharkhand

## ABSTRACT

1. **Survey Area** : 2A2E5s1 and 2A2E7n2 sub watersheds of Maithan Dam Catchment, Districts Giridih and Koderma, Jharkhand.
2. **Location and Extent** : 2A2E5s1 :  $23^{\circ}37' - 23^{\circ}43'N$  latitude and  $85^{\circ}47'30'' - 85^{\circ}52'E$  longitude  
2A2E7n2 :  $24^{\circ}25' - 24^{\circ}29'N$  latitude and  $85^{\circ}32' - 85^{\circ}37'30''E$  longitude
3. **Type of Survey** : Detailed Soil Survey
4. **Total Area Mapped** : 7555 ha.
5. **Agro Climatic Zone** : Eastern plateau and Hills (zone no. 7) as per National Planning Commission
6. **Period of Survey** : December, 2001 to March, 2002

## 7. Soil Series Mapped and their Extent in ha (Subwatershed wise)

Sl. No.	Name of Soil Series	No. of Mapping Units	Total Area (ha)	Area of Subwatersheds (ha)	
				2A2E5s1	2A2E7n2
1.	Ashnabad (A)	8	1089 (14.4)	28.8 (6.5)	801 (25.6)
2.	Bendukuni (BK)	7	1799 (23.8)	1366 (30.8)	433 (13.9)
3.	Puto (PT)	7	1326 (17.6)	1135 (25.6)	191 (6.1)
4.	Karaya (K)	3	663 (8.8)	510 (11.5)	153 (4.9)
5.	Parkala (PK)	6	826 (10.9)	451 (10.2)	375 (12.0)
6.	Sarua (S)	3	294 (3.9)	63 (1.4)	231 (7.4)
7.	Sarabmunda (SM)	2	47 (0.6)	2 (0.1)	45 (1.5)
8.	Zalim (Z)	4	21 (0.3)	5 (0.1)	16 (0.5)
<b>Total</b>		<b>40</b>	<b>6065</b>	<b>3820</b> <b>(86.2)</b>	<b>2245</b> <b>(71.9)</b>
Misc.		-	1490	612 (13.8)	878 (28.1)
<b>Grand Total</b>			<b>7555</b>	<b>4432</b>	<b>3123</b>

## 8. Subwatershedwise Distribution of Area under various Land Capability Classes

Sl. No.	Land Capability	Area (ha)	%	Area of Subwatersheds (ha)	
				2A2E5s1	2A2E7n2
1.	II	2443	32.3	988 (22.3)	1455 (46.6)
2.	III	1439	19.0	1165 (26.3)	274 (8.8)
3.	IV	2136	28.2	1665 (37.6)	471 (15.1)
4.	VI	2	0.03	2 (0.05)	-
5.	VII	45	0.6	-	45 (1.4)
Misc.		1490	19.7	612 (13.8)	878 (28.1)
<b>Grand Total</b>		<b>7555</b>	<b>100</b>	<b>4432</b>	<b>3123</b>

## 9. Subwatershedwise Area (ha) under Different Erosion Classes and their Percentage

Sl. No.	Erosion Class	2A2E5s1	2A2E7n2	Total
1.	Slight (e1)	826 (18.7)	955 (30.6)	1781 (23.6)
2.	Moderate (e2)	2049 (46.2)	1042 (33.4)	3091 (40.9)
3.	Severe (e3)	945 (21.3)	248 (7.9)	1193 (15.8)
	<b>Total</b>	<b>3820</b>	<b>2245</b>	<b>6065</b>
	<b>(%)</b>	<b>(86.2)</b>	<b>(71.9)</b>	
	Misc.	612 (13.8)	878 (28.1)	1490 (19.7)
	<b>Grand Total</b>	<b>4432</b>	<b>3123</b>	<b>7555</b>
		<b>(100)</b>	<b>(100)</b>	<b>(100)</b>

## 10. Salient Features of the Area

- ❖ Very deep soil, spreading over 27.3% area is dominated in the area which is followed by shallow soil (24.3%) and moderately deep soils (17.6%).
- ❖ Generally, the lands are very gentle to gentle sloping, covering 5957 ha area (78.8%) except 47 ha area (0.6%) under strongly to very steep sloping land and 61 ha (0.8%) with moderate slope.
- ❖ 1193 ha (15.8%) lands are subjected to severe erosion and urgently require intensive soil conservation measure.
- ❖ 957 ha (12.7%) area is susceptible to seasonal water logging.