

# Report on Detailed Soil Survey and Land Use of Rc2m and Rc4q Subwatersheds of Rupnarayan Catchment (F.P.R) P.S. Goaltore and Salbani, District Medinipur of West Bengal

## Abstract

1. **Survey Area** : Rc2m and Rc4q Sub-watersheds of Rupnarayan Catchment (F.P.R) P.S. Goaltore and Salbani, District Medinipur of West Bengal.
2. **Location and Extent** : Rc2m:  $22^{\circ}29'$  to  $22^{\circ}32'$  N latitude and  $87^{\circ}14'$  to  $87^{\circ}19'$  E longitude  
Rc4q:  $22^{\circ}41'$  to  $22^{\circ}44'$  N latitude and  $87^{\circ}10'$  to  $87^{\circ}16'$  E longitude
3. **Total Area Mapped** : 2698 ha
4. **Type of Survey** : Detailed Soil Survey
5. **Period of Survey** : February to March 2000
6. **Agro-climatic Zone** : Lower Gangetic Plains (Zone No. 3) as per Planning Commission Report (1989)

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

Sl. No.	Soil Series	Number of Mapping Units	Rc2m	Rc4q	Total Area (ha)	%
1.	Argora (AG)	2	11 (0.8)	-	11	0.4
2.	Bistupur (BS)	3	-	113 (8.9)	113	4.2
3.	Dobati (DB)	4	140 (9.8)	-	140	5.2
4.	Ghoradanga (GD)	3	15 (1.1)	41 (3.2)	56	2.1
5.	Illambazar (IB)	5	27 (1.9)	570 (44.9)	597	22.1
6.	Jamusal (JS)	2	-	61 (4.8)	61	2.3
7.	Kanchanpur (KC)	3	18 (1.3)	-	18	0.7
8.	Kochdih (KD)	8	253 (17.7)	374 (29.4)	627	23.2
9.	Kakrisal (KR)	2	336 (23.5)	-	336	12.4
10.	Salbani (SB)	3	161 (11.3)	-	161	6.0
11.	Radhadamodarpur (RD)	5	342 (23.9)	11 (0.9)	353	13.0
12.	Misc.		125 (8.7)	100 (7.9)	225	8.4
<b>Total</b>			<b>1428</b>	<b>1270</b>	<b>2698</b>	<b>100.00</b>

## 8. Subwatershed wise Area in ha Under Different Land Capability Classes

Sl. No.	Land Capability Classes	Subwatershed		Area (ha)	%
		Rc2m	Rc4q		
1.	II	935 (65.5)	1118 (88.0)	2053	76.1
2.	III	357 (25.0)	52 (4.1)	409	15.1
3.	IV	11 (0.8)	-	11	0.4
4.	Misc.	125 (8.7)	100 (7.9)	225	8.4
<b>Total</b>		<b>1428</b>	<b>1270</b>	<b>2698</b>	<b>100.0</b>

## 9. Subwatershed wise Area in ha Under Different Erosion Classes

Sl. No.	Erosion Classes	Subwatershed		Area (ha)	%
		Rc2m	Rc4q		
1.	None to Slight Erosion (e1)	553 (38.7)	599 (47.1)	1152	42.7
2.	Moderate Erosion (e2)	750 (52.6)	571 (45.0)	1321	48.9
<b>Total</b>		<b>1303 (91.3)</b>	<b>1170 (92.1)</b>	<b>2473</b>	<b>91.6</b>
Misc.		125 (8.7)	100 (7.9)	225	8.4
<b>Grand Total</b>		<b>1428</b>	<b>1270</b>	<b>2698</b>	<b>100.0</b>

## 10. Salient Features :

- ❖ The survey area is dominated by very deep soils, covering 1520 ha (56.3%) which is followed by deep soils (589 ha), moderately deep (353 ha) and shallow soils (11 ha).
- ❖ The land of the survey area is mainly very gentle sloped (2399 ha i.e. 88.9%) where remaining land is nearly level (74 ha).
- ❖ Only 1320 ha covering 48.9% area is subjected to moderate erosion whereas none to slight erosion hazards is (1152 ha) accounts 42.7% of the whole area.
- ❖ About 1152 ha of the survey area is terraced land and under paddy cultivation.
- ❖ 61 ha (2.3%) is susceptible to seasonal water logging.