

Report on Detailed Soil Survey and Land Use of Sg4g and Sg4h Subwatersheds of Subarnarekha Catchment (RVP), P.S. karaikella, District Singbhum (West) of Jharkhand

Abstract

1. Survey area : Sg4g and Sg4h sub-watersheds of of Subarnarekha Catchment (RVP), P.S. karaikella, District Singbhum (West) of Jharkhand
2. Type of Survey : Detailed Soil Survey
3. Location and Extent : 22^o 41' - 22^o 48' 30" N Latitudes :
85^o 27' 30" to 85^o 35' E Longitudes :
4. Total area Mapped : 4080 ha
5. Period of Survey : December ' 01 to February ' 02
6. Agro Climatic Zone : Eastern plateau and Hills (zone no. 7)

7. Soil Series and their Extent (Sub-watershed wise)

Sl.No.	Name of Soil Series	No. of Units	Sub-watersheds wise area (ha)		Total Area
			Sg4g (%)	Sg4h (%)	
1.	Amgaon (AG)	4	159 (3.9)	97 (2.4)	256 (6.3)
2.	Bendukani (BK)	7	65 (1.6)	79 (1.9)	144 (3.5)
3.	Bhagwanpur (BG)	5	443 (10.9)	37 (0.9)	480 (11.8)
4.	Dumardiha (DD)	5	106 (2.6)	79 (1.9)	185 (4.5)
5.	Gopalpur (G)	4	425 (10.4)	27 (0.6)	452 (11.1)
6.	Hurangda (H)	1	24 (0.6)	-	24 (0.6)
7.	Jharki (J)	4	334 (8.2)	112 (2.7)	446 (10.9)
8.	Nakti (N)	4	64 (1.6)	22 (0.5)	86 (2.1)
9.	Parkela (PK)	3	122 (3.0)	195 (4.8)	317 (7.8)
10.	Rangring (RP)	3	-	181 (4.4)	181 (4.4)
11.	Sarabmunda (SB)	3	14 (3.5)	1034 (25.3)	1175 (28.8)
Total		45	1883 (46.2)	1863 (45.6)	3746 (91.8)
Misc. (Road, Tank, Habitation etc.)			219 (5.4)	115 (2.8)	334 (8.2)
Grand total			2102	1978	4080 (100%)

• (Figure in bracket expresses percent of total area)

8. Subwatershed-wise Distribution of Area under various Land Capability Classes

Sl No.	Land Capability Class	Area in ha	Sub-watershed wise Area (ha)	
			Sg4g	Sg4h
1.	II-1	1098	831	267
2.	Ile-1	5	5	-
3.	IIs-1	151	95	56
4.	IIs-2	22	22	-
5.	Iiw-1	336	266	70
6.	IIs-1	31	31	-
7.	IIs-2	36	14	22
8.	Ilew-1	26	26	-
9.	III-1	247	186	61
10.	IIIe-1	19	5	14
11.	IIIs-1	87	66	21
12.	IIIs-2	16	-	16
13.	IIIs-3	144	20	124
14.	IIIw-1	84	42	42
15.	IIIs-1	33	13	20
16.	IIIs-2	49	27	22
17.	IVs-1	45	29	16
18.	IVes-1	41	23	18
19.	IVes-2	9	-	9
20.	IVes-3	28	28	-
21.	IVes-4	15	-	15
22.	Ves-1	526	88	438
23.	Ves-2	8	8	-
24.	VIIes-1	649	53	596
25.	VIIes-2	41	5	36
	Total	3746	1883	1863
	Misc.	334	219	115
	Grand Total	4080	2102	1978

1705
679
138
534
60

10. Salient Features of the Area :

- ⇒ Nearly 54.9 percent of survey area is covered by deep to very deep soils with good agricultural potential.
- ⇒ Moderately deep soils covered 4.5 percent of survey area, whereas shallow soils have their extent over 32.3 percent with a serious problem of rooting depth.
- ⇒ Very gentle and gentle slopes together cover 62.8 percent of survey area.
- ⇒ Strong slopes and moderately steep to steep slopes cover 12.9 and 11.6 percent of survey area respectively.
- ⇒ Slight erosion extends over 54.6 percent and moderate erosion over 18.8 percent of survey area.
- ⇒ Severe erosion covers 18.4 percent of survey area which needs urgent soil conservation measures.
- ⇒ Nearly 37.1 percent of the survey area is unbunded which needs soil conservation measures.