

Report on Detailed Soil and Land Use Survey of 4G2D3c-2, 4G2D3g-2, 4G2D3h-1, 4G2D3h-2, 4G2D3j-1, 4G2D3j-2 and 4G2D3k-1 Subwatersheds Hasdo Subcatchment (Mahanadi Catchment) Tahsil- Katghora and Korba, District- Korba, Chhattisgarh

ABSTRACT

1. **Surveyed Area** : Subwatersheds 4G2D3c-2, 4G2D3g-2, 4G2D3h-1, 4G2D3h-2, 4G2D3j-1, 4G2D3j-2 and 4G2D3k-1 of Hasdo Subcatchment.
2. **Total Area** : 23,943 ha
3. **Geographic location** : 22° 31.8' - 22°42.3' N Latitude and 82° 34.5' - 82° 46.3' E longitude
4. **Agroclimatic zone** : Eastern Plateau and Hills Region (Region No. VII)
5. **Period of survey** : February to April, 2006
6. **Type of Survey** : Detailed Soil Survey
7. **Soil Series mapped and their Subwatershedwise extent in ha. :**

S. No.	Name of Soil Series	Total Area (ha)	4G2D3c-2	4G2D3g-2	4G2D3h-1	4G2D3h-2	4G2D3j-1	4G2D3j-2	4G2D3k-1
1.	Amadand (A)	453 (1.9)	262 (11.3)	-	113 (4.2)	78 (1.7)	-	-	-
2.	Bichhutola (BH)	376 (1.6)	164 (7.1)	-	30 (1.1)	38 (0.8)	92 (1.7)	-	52 (1.9)
3.	Malga (ML)	797 (3.3)	530 (22.9)	-	-	6 (0.1)	196 (3.6)	-	65 (2.4)
4.	Narayanpur (NR)	536 (2.2)	536 (23.1)	-	-	-	-	-	-
5.	Paradol (PR)	14861 (62.1)	-	2120 (72.5)	2555 (94.3)	2749 (59.5)	2628 (48.7)	3054 (94.9)	1755 (63.8)
6.	Tanki (TK)	580 (2.4)	418 (18.0)	-	11 (0.4)	-	38 (0.7)	61 (1.9)	52 (1.9)
Sub Total Percentage		17603 (73.5)	1910 (82.4)	2120 (72.5)	2709 (100.0)	2871 (62.1)	2954 (54.7)	3115 (96.8)	1924 (70.0)
Area under River, Nala, Tank, Hab. & submergence		6340 (26.5)	408 (17.6)	805 (27.5)	2 (-)	1748 (37.9)	2445 (45.3)	104 (3.2)	828 (30.0)
Grand Total		23943 (100.0)	2318 (100.0)	2925 (100.0)	2711 (100.0)	4619 (100.0)	5399 (100.0)	3219 (100.0)	2752 (100.0)

8. Land Capability Classification:

Land Capability Sub-class	Subwatersheds							Total	Soil Series
	4G2D3c-2	4G2D3g-2	4G2D3h-1	4G2D3h-2	4G2D3j-1	4G2D3j-2	4G2D3k-1		
Ile-1	297 (12.8)	-	52 (1.9)	87 (1.9)	-	-	52 (1.9)	488	Amadand, Bichhutola, Narayanpur
II-1	387 (16.7)	-	-	6 (0.1)	131 (2.4)	-	-	524	Malga
III-1	143 (6.2)	-	-	-	65 (1.2)	-	65 (2.3)	273	Malga
IIIe-1	340 (14.7)	-	25 (0.9)	-	12 (0.2)	-	-	377	Bichhutola Narayanpur
IIIes-1	202 (8.7)	-	-	-	-	-	-	202	Tanki
IIIes-2	177 (7.6)	-	-	-	-	-	-	177	Amadand Tanki
Ives-1	255 (11.0)	-	66 (2.5)	29 (0.7)	80 (1.5)	-	-	430	Amadand Bichhutola
Ives-2	109 (4.7)	-	11 (0.4)	-	38 (0.7)	61 (1.9)	52 (1.9)	271	Tanki
Sub-Total	1910 (82.4)	-	154 (5.7)	122 (2.7)	326 (6.0)	61 (1.9)	169 (6.1)	2742 (11.4)	
Forest land (Reserved)	-	2120 (72.5)	2555 (94.2)	2749 (59.5)	2628 (48.7)	3054 (94.9)	1755 (63.8)	14861 (62.1)	
Misc. Land	408 (17.6)	805 (27.5)	2 (0.1)	1748 (37.8)	2445 (45.3)	104 (3.2)	828 (30.1)	6340 (26.5)	
Grand Total	2318 (100.0)	2925 (100.0)	2711 (100.0)	4619 (100.0)	5399 (100.0)	3219 (100.0)	2752 (100.0)	23943 (100.0)	

9. Salient Features:

- a) The deep to very deep soils cover only 2162 ha, accounting for 9% of the total survey area of 23943 ha.
- b) 1244 ha (5.2%) area suffer from moderate erosion hazards whereas 15562 ha (65.0%) has the problem of severe erosion which needs immediate measures for soil conservation.
- c) Out of 2742 ha agriculturally suitable land, 501 ha. lands are occasionally cultivated due to major limitation that need attention for suitable soil and water conservation practices.