

**Report on Detailed Soil Survey and Land Use
of 4G2D7k-1; 4G2D7m-1; 4G2D7m-2; 4G2D7r-1; 4G2D7r-2; 4G2D7s-1;
4G2D7s-2; 4G2D7t-1 and 4G2D7u-1 Subwatersheds of Hasdo Subcatchment
(Mahanadi Catchment) Tahasil- Manendragarh, Sonhat and Kotma of Koriya
and Shahadol District of Chhattisgarh and Madhya Pradesh States**

ABSTRACT

1. **Surveyed Area** :Subwatersheds 4G2D7k-1, 4G2D7m-1, 4G2D7m-2,
4G2D7r-1, 4G2D7r-2, 4G2D7s-1, 4G2D7s-2, 4G2D7t-1
and 4G2D7u-1 of Hasdo Subcatchment
(Mahanadi Catchment)
2. **Total Area** : 3, 30, 92 ha. Reported and Mapped
3. **Period of Survey** :November 2003 to April 2004
4. **Type of Survey** :Detailed Soil Survey
5. **Soil series mapped & their extent (ha.)**

Sr. No.	Name of Series	No. of mapping units	Total Area (ha.)	4G2D7k-1	4G2D7m-1	4G2D7m-2	4G2D7r-1	4G2D7r-2	4G2D7s-1	4G2D7s-2	4G2D7t-1	4G2D7u-1
1	Amadand (A)	3	2042 (6.2)	527 (10.7)	179 (4.0)	287 (8.6)	131 (4.2)	220 (6.0)	163 (5.9)	147 (5.2)	140 (4.2)	248 (5.4)
2	Bichhutota(BH)	3	4624 (14.0)	737 (14.9)	328 (7.3)	415 (12.5)	366 (11.7)	392 (10.6)	598 (21.5)	440 (15.7)	459 (13.8)	889 (19.3)
3	Dhulku (D)	2	1050 (3.2)	49 (1.0)	116 (2.6)	174 (5.2)	80 (2.6)	311 (8.4)	91 (3.3)	13 (0.5)	79 (2.4)	137 (3.0)
4	Ghuttra (G)	3	273 (0.8)	26 (0.5)	72 (1.6)	8 (0.2)	68 (2.2)	26 (0.7)	6 (0.2)	24 (0.9)	11 (0.3)	32 (0.7)
5	Hasdo (HD)	3	2816 (8.5)	166 (3.4)	480 (10.7)	496 (14.9)	174 (5.6)	326 (8.8)	184 (6.6)	155 (5.5)	469 (14.1)	366 (8.0)
6	Malga (ML)	2	2112 (6.3)	224 (8.6)	294 (6.5)	323 (9.7)	189 (6.1)	473 (12.8)	99 (3.6)	76 (2.7)	192 (5.8)	42 (0.9)

7	Narayanpur (NR)	2	2128 (6.4)	226 (4.6)	147 (3.3)	148 (4.4)	272 (8.7)	484 (13.1)	104 (3.7)	270 (9.6)	158 (4.8)	311 (9.0)
8	Paradol (PR)	4	12834 (38.8)	1704 (34.5)	2242 (49.8)	843 (25.3)	1010 (32.4)	1220 (33.0)	1211 (43.5)	1277 (45.6)	1209 (36.4)	2111 (60.0)
9	Salwa (S)	2	391 (1.2)	5 (0.1)	12 (0.3)	83 (2.5)	40 (1.3)	-- (--)	67 (2.4)	5 (0.2)	111 (3.3)	60 (1.7)
10	Sonhari (SH)	1	90 (0.3)	66 (1.3)	24 (0.5)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	90 (0.3)
11	Tanki (TK)	2	2127 (6.4)	309 (6.2)	234 (5.2)	228 (6.8)	546 (17.5)	62 (1.7)	155 (5.6)	92 (3.3)	301 (9.0)	201 (5.7)
Subtotal Percentage			30487 (92.1)	4239 (85.8)	4128 (91.8)	3005 (90.1)	2876 (92.3)	3514 (95.1)	2678 (96.3)	2499 (89.2)	3129 (94.1)	4411 (96.6)
Other feature including River, Road, Tank, Village situation etc			2605 (7.9)	703 (14.2)	371 (8.2)	331 (9.9)	239 (7.7)	180 (4.9)	104 (3.7)	304 (10.8)	196 (5.9)	1771 (39.0)
Grand Total Percentage.			33092 (100)	4942 (100)	4499 (100)	3336 (100)	3115 (100)	3694 (100)	2782 (100)	2803 (100)	3325 (100)	4591 (100)

LAND CAPABILITY CLASSIFICATION

Land Capability Sub-Class	SUBWATERSHEADS									Total Area	Soil Series
	4G2D7k-1	4G2D7m-1	4G2D7m-2	4G2D7r-1	4G2D7r-2	4G2D7s-1	4G2D7s-2	4G2D7t-1	4G2D7u-1		
I	2	3	4	5	6	7	8	9	10	11	12
Ile	92 (1.9)	49 (1.0)	122 (3.7)	53 (1.7)	66 (1.8)	24 (0.9)	72 (2.6)	11 (0.3)	14 (0.3)	503 (1.5)	Bichhutola, Narayanpur
Ils	246 (5.0)	199 (4.4)	220 (6.6)	97 (3.1)	376 (10.2)	30 (1.1)	56 (2.0)	87 (2.6)	35 (0.8)	1346 (1.9)	Malga
II	-- (--)	61 (1.4)	26 (0.8)	28 (0.9)	100 (2.7)	36 (1.3)	-- (--)	33 (1.0)	40 (0.9)	324 (1.0)	Dhulku
Iles	2 (--)	12 (0.3)	-- (--)	-- (--)	11 (0.3)	-- (--)	-- (--)	-- (--)	-- (--)	25 (0.1)	Ghuttra
III	49 (1.0)	52 (1.2)	119 (3.6)	50 (1.6)	197 (5.3)	38 (1.4)	10 (0.4)	42 (1.3)	3 (--)	560 (1.7)	Dhulku
IIle	153 (3.1)	118 (2.6)	103 (3.0)	126 (4.0)	148 (4.0)	80 (2.9)	70 (2.5)	79 (2.4)	38 (0.8)	915 (2.8)	Amadand, Bichhutola, Narayanpur

III _s	109 (2.2)	77 (1.7)	67 (2.0)	90 (2.9)	96 (2.6)	25 (0.9)	20 (0.7)	105 (3.2)	-- (--)	589 (1.8)	Malga
III _{es}	25 (0.2)	46 (1.0)	52 (1.6)	40 (1.3)	15 (0.4)	18 (0.6)	2 (--)	34 (1.0)	3 (--)	235 (0.7)	Ghutra, Salwa & Tanki
IV _e	354 (7.2)	198 (4.4)	182 (5.4)	189 (6.6)	134 (3.6)	160 (5.8)	15 (0.5)	122 (3.7)	58 (1.3)	1412 (4.3)	Amadand Bichhutola
VI _{es}	96 (1.9)	132 (2.9)	104 (3.1)	157 (5.0)	115 (3.1)	23 (0.8)	-- (--)	135 (4.0)	55 (1.2)	817 (2.5)	Paradol, Somhari
VII _{es}	105 (2.1)	53 (1.2)	20 (0.6)	12 (0.4)	15 (0.4)	22 (0.8)	-- (--)	120 (3.6)	-- (--)	347 (1.0)	Pardol
Sub Total	1288 (26.1)	1171 (26.0)	1341 (40.2)	923 (29.6)	1446 (39.1)	532 (19.2)	278 (9.9)	848 (25.5)	282 (6.1)	8109 (24.5)	
Forest Land	2951 (59.7)	2957 (65.8)	1664 (49.9)	1953 (62.7)	2068 (56.6)	2146 (77.1)	2221 (79.3)	2281 (68.6)	4137 (90.0)	22378 (67.6)	
Mic Land	703 (14.2)	371 (8.2)	331 (9.9)	239 (7.7)	180 (4.9)	104 (3.7)	304 (10.8)	196 (5.9)	177 (3.9)	2605 (7.9)	
G. Total	4942 (100)	4499 (100)	3336 (100)	3115 (100)	3694 (100)	2782 (100)	2803 (100)	3325 (100)	4596 (100)	33092 (100)	

7. Salient Features:-

The deep to very deep soils cover only 1229ha., this accounts for 36.9% of the total surveys area of 33092ha.

An area of 84.49 ha (25.51) suffer from moderate erosion hazards, where as 1876 ha. (57.0%) has the problem of severe erosion which needs immediate soil conservation measures.