

Report on Detailed Soil Survey and Land Use of
Bq2c, Bq2d, Bq2f, Bq3a, Bq3c, Bq3j and Bq3k
priority subwatersheds of Brahmani Catchment
of P.S.- Angul, Bantala, Hindol & Purnakot
Dist.- Dhenkanal, Orissa State.

ABSTRACT

1. Survey areas: Subwatersheds No. Bq2c, Bq2d, Bq2f, Bq3a, Bq3c, Bq3j & Bq3k of Brahmani Catchment Dist.- Dhenkanal, Orissa State.
2. Agroclimatic zone & Geographical Extent: Eastern plateau Hill (zone No. 7), located in between 20°-36' to 20°-46' N latitude and 84°-51' to 85°-12' E longitude.
3. Total area reported & mapped : 21553 ha.
 a) Type of survey : Detailed soil survey .
 b) Period of survey : December '90 to June 1991.
4. Subwatershedwise area (in ha.) mapped under different soil series (% in bracket).

Sl. No. of soil series	Sub watersheds							Total area	% area	No. of mapping units
	Bq2f	Bq2d	Bq2c	Bq3a	Bq3c	Bq3j	Bq3k			
1. Amvatikar(A)	170.2 (5.6)	107.4 (4.8)	418.4 (7.9)	88.8 (3.5)	83.3 (2.2)	129.2 (8.7)	567 (18.4)	1564.3	7.3	3
2. Baliani(B)	306.3 (10.4)	81.4 (3.9)	411.5 (8.0)	421.1 (15.4)	339.7 (9.0)	53 (3.6)	350.5 (11.5)	1963.5	9.1	5
3. Fulpara(F)	258.3 (8.6)	13.6 (0.5)	-	40.3 (1.5)	79.9 (2.1)	26.6 (1.8)	-	418.7	2.0	5
4. Birdhabasia(B)	356.9 (12.0)	113.2 (5.0)	98.9 (2.0)	167.7 (6.1)	117.2 (3.1)	-	-	853.9	3.9	4
5. Hurlong(H)	196.5 (6.4)	672.4 (30.9)	1017.6 (19.1)	506.8 (18.5)	801.1 (21.3)	325.2 (22.0)	776.1 (25.2)	4295.7	19.9	6
6. Jagaldaga(J)	-	-	14.6 (0.3)	-	41 (1.1)	119.6 (8.1)	168.1 (5.5)	343.3	1.6	4
7. Kansara(K)	93.2 (3.0)	112.3 (4.9)	113.6 (2.1)	34.3 (1.2)	127.3 (3.4)	99.7 (7.0)	48.5 (1.6)	628.9	2.9	3

8. Kinamar (KM)	11.80	20.10	8.6	7.3	1.7	-	29.70	79.2	0.3	2
	(0.4)	(0.9)	(0.1)	(0.3)	(0.5)		(0.9)			
9. Rankasingha (R)	1423.1	356.6	269.3	1167.5	627.3	118.1	9	3970.9	18.4	8
	(47.3)	(16.2)	(5.1)	(42.8)	(16.6)	(8.0)	(0.4)			
10. Shalodih (S)	53.7	35.5	604.7	88.3	142.5	39.9	185.4	1150	5.3	6
	(2.0)	(2.0)	(11.2)	(3.2)	(3.8)	(2.7)	(6.1)			
11. Talmulsasan (T)	71.6	368.6	918.5	200.5	860	342.2	102.6	2864	13.3	6
	(2.3)	(17.0)	(17.1)	(7.3)	(22.8)	(23.1)	(3.4)			
12. Misc.	57.4	300.9	1449.3	10.4	548	223.5	831.1	3420.6	16.0	
	(2.0)	(13.9)	(27.1)	(0.4)	(14.6)	(15.0)	(27.0)			

Total :	2999	2182	5325	2733	3769	1477	3068	21553	100	53
% :	(100)	(100)	(100)	(100)	(100)	(100)	(100)			

5. Land capability classes in different Subwatersheds (Area in ha. & %).

Sl. No.	Land capability class	Sub watersheds						Total	%	
		Bg2f	Bg2d	Bg2c	Bg3a	Bg3c	Bg3j			Bg3k
1.	II	2289.1 (76.3)	1502.1 (68.9)	2660.7 (50.0)	2186.5 (80.0)	2798.2 (74.1)	1057.8 (71.6)	1407 (45.9)	13901.4	64.5
2.	III	149.2 (5.0)	143.9 (6.6)	374.6 (7.3)	362.6 (13.3)	73.5 (2.0)	41.9 (2.8)	13.6 (0.5)	1159.3	5.4
3.	IV	311.6 (10.4)	86.4 (3.9)	401.3 (7.3)	79.3 (2.6)	107.3 (2.9)	12 (0.8)	122.2 (4.0)	1120.1	5.1
4.	VI	191.7 (6.4)	148.7 (6.8)	439.1 (8.2)	94.2 (3.7)	242 (6.4)	141.8 (9.6)	694.1 (22.6)	1951.6	9.1
5.	Misc.	57.4 (1.9)	300.9 (13.8)	1449.3 (27.2)	10.4 (0.4)	548 (14.6)	223.5 (15.2)	831.1 (27.0)	3420.6	15.9
Total :		2999	2182	5325	2733	3769	1477	3068	21553	100
% :		(100)	(100)	(100)	(100)	(100)	(100)	(100)		

6. Salient features:

- a) About 7.6% area is under shallow soils suitable for forest, pasture and other non-agricultural uses.
- b) Nearly 67.2% area is covered by deep and very deep soils, suitable for agriculture under rain fed and irrigated farming.
- c) Out of the total area 50.7% and 26.2% area are under very gentle (1-3% slope) and gentle (3-5% slope) respectively and they require soil and water conservation measures and also agriculture managements.
- d) Nearly 17.1% area suffers from severe to very severe erosion hazards. Suitable soil and water conservation measures should be taken on priority basis, to control degradation of lands in the survey area.