

Report on detailed soil survey and land use of Aa2d, 2g, 2q, sub-watersheds of Sinaria Anchal, district Hazaribag and Aa1c, Ab1c, Ab1d, 1g, qh and Ab2e, d, g and g sub-watersheds of Balumath Anchal, district Palamouf Akra Dam catchment, Bihar State.

### Abstract

1. Sub-watershed- Aa2d, Aa2f(part), Aa2g(part), Aa1b(part), Aa1c(part), Ab 2c, Ab2d, Ab2f(part), Ab2g(part), Ab1d(part), Ab1f(part), Ab1g(part) and Ab1h(part) of Amanat Dam catchment under Son R.V.P., Sinaria and Balumath Anchal of Hazaribagh and Palamou district, Bihar State
2. Total area covered- 22,941 ha.

#### (i) SUBWATERSHEDWISE TOTAL AREA:

(i) Sub watershed No. Aa2d	1997 ha.
(ii) " " Aa2f(part)	3317 ha
(iii) " " Aa2g(part)	775 "
(iv) " " Aa1b (part)	3565 "
(v) " " Aa1c (part)	827 "
(vi) " " Ab2c	3022 "
(vii)" " Ab2d	1537 "
(viii)" " Ab2f (part)	1062 "
(ix) " " Ab2g (part)	2243 "
(x) " " Ab1d (part)	618 "
(xi) " " Ab1f (part)	1248 "
(xii)" " Ab1g (part)	1310 "
(xiii)" " Ab1h (part)	1370 "

3. TYPE OF SURVEY:- DETAILED

4. PERIOD OF SURVEY:- December, 1930 to 15th July, 1931.

5. SOIL SERIES AND THEIR EXTENT.



AREA UNDER DIFFERENT SUB WATERSHEDS AND THEIR PERCENTAGE OF THE TOTAL

Sl. No.	Name of series	Total area in ha	Aa2d	Aa2F	Aa2i	AG1b	Aa1c	Ab2a	Ab2d	Ab2F	Ab2g	Ab1d	Ab1F	Ab1g	Ab1h
1.	Angwa (AG)	1520 (6.7)	155 (7.7)	294 (8.9)	68 (8.8)	82 (2.3)	47 (5.7)	172 (5.7)	123 (7.7)	75 (7.1)	145 (6.5)	31 (5.0)	158 (12.7)	106 (8.1)	64 (4.7)
2.	Bhagampur (BG)	967 (4.2)	30 (1.5)	67 (2.0)	18 (2.3)	120 (3.4)	-	158 (5.2)	73 (4.6)	36 (3.4)	151 (6.7)	23 (3.7)	89 (7.1)	59 (4.5)	143 (10.4)
3.	Benkani (BK)	1316 (5.7)	145 (7.4)	376 (11.3)	54 (6.9)	320 (8.9)	68 (8.2)	109 (3.6)	83 (5.2)	-	140 (6.3)	-	-	-	21 (1.5)
4.	Bairya (BY)	786 (3.4)	19 (1.0)	-	20 (2.6)	110 (3.1)	-	13 (0.5)	34 (2.1)	180 (16.9)	113 (5.0)	19 (3.1)	60 (4.8)	84 (6.4)	134 (9.8)
5.	Bambu (BB)	804 (3.5)	74 (3.7)	30 (0.9)	81 (10.5)	220 (6.2)	-	152 (5.0)	37 (2.3)	-	69 (3.1)	7 (1.2)	32 (2.6)	34 (2.6)	68 (4.9)
6.	Dari (DR)	653 (2.9)	18 (0.9)	35 (1.1)	-	31 (0.9)	27 (3.3)	79 (2.6)	28 (1.7)	38 (3.6)	146 (6.5)	18 (2.9)	117 (9.4)	54 (4.9)	52 (3.8)
7.	Edla (ED)	2848 (12.4)	86 (4.4)	282 (8.5)	63 (8.1)	273 (7.7)	83 (10.0)	516 (17.1)	370 (23.4)	193 (18.2)	372 (16.6)	35 (5.7)	172 (13.8)	235 (17.9)	166 (12.1)
8.	Humbu (HB)	392 (1.6)	19 (1.0)	29 (0.9)	11 (1.4)	68 (1.9)	27 (3.3)	54 (1.8)	27 (1.7)	-	52 (2.3)	12 (1.9)	10 (0.8)	39 (2.9)	44 (3.2)
9.	Jagaldaga (JD)	914 (3.9)	136 (6.7)	58 (1.7)	5 (0.6)	165 (4.6)	202 (24.4)	153 (5.1)	56 (3.5)	74 (6.9)	20 (0.9)	23 (3.7)	22 (1.8)	-	-
10.	Matnag (MG)	2052 (9.0)	366 (18.2)	588 (17.7)	52 (6.7)	493 (13.8)	3 (1.1)	211 (0.4)	97 (6.9)	22 (6.0)	100 (2.1)	68 (8.5)	110 (11.0)	65 (6.5)	105 (0.6)
11.	Parkala (PK)	1752 (7.7)	201 (10.0)	248 (7.5)	16 (2.1)	314 (8.8)	9 (1.1)	109 (6.3)	163 (10.3)	-	202 (12.6)	81 (13.1)	95 (4.5)	105 (9.0)	88 (6.5)
12.	Phulsu (PS)	667 (3.0)	31 (1.6)	69 (2.1)	12 (1.6)	36 (1.0)	47 (5.7)	33 (1.1)	14 (0.9)	7 (0.6)	47 (2.1)	19 (3.1)	132 (10.5)	85 (6.5)	135 (9.9)
13.	Sarabmuda (SM)	3014 (13.1)	404 (20.2)	685 (20.7)	237 (30.6)	892 (25.0)	55 (6.6)	312 (10.1)	101 (6.4)	-	112 (4.9)	23 (3.7)	-	124 (9.5)	69 (5.0)
14.	Sarma (SR)	3284 (14.4)	216 (10.8)	462 (12.1)	68 (8.8)	321 (9.0)	169 (20.4)	751 (24.9)	250 (15.8)	295 (27.8)	252 (11.2)	209 (33.8)	128 (10.2)	146 (11.1)	77 (5.6)
15.	Zalim (ZM)	1474 (6.4)	53 (2.6)	93 (2.8)	45 (5.8)	74 (2.1)	75 (9.1)	54 (1.9)	106 (6.8)	108 (10.2)	202 (9.0)	39 (6.3)	232 (18.6)	128 (19.8)	265 (19.4)
16.	River, Nalas etc.	488 (2.1)	42 (2.1)	41 (1.1)	25 (3.2)	46 (1.3)	15 (1.8)	66 (2.2)	25 (1.6)	34 (3.2)	40 (1.8)	11 (1.8)	40 (3.2)	43 (3.3)	40 (2.9)
Total		22,941 (100%)	1997 (100%)	3317 (100%)	775 (100%)	3565 (100%)	827 (100%)	3222 (100%)	1587 (100%)	1062 (100%)	2243 (100%)	618 (100%)	1248 (100%)	1310 (100%)	1370 (100%)

Break indicate the percentage.

5. HIGH WATER FLOODING AREA OF LAND CAPABILITY UNITS WITH THEIR PERCENTAGE IN THE SUB-DIVISION

Land capability unit	Total area in ha. & %	Aa2d	Aa2f	Aa2g	Aa1b	Aa1c	Ab2c	Ab2d	Aa2f	Aa2g	Ab1d	Ab1f	Ab1g	Ab1h
II	1753 (7.6)	49 (2.5)	67 (2.0)	38 (4.9)	230 (6.5)	-	171 (5.7)	107 (6.7)	216 (20.3)	264 (11.3)	12 (6.3)	149 (11.9)	143 (10.9)	277 (20.2)
IIw	2173 (9.6)	173 (0.7)	329 (9.9)	63 (0.3)	113 (3.2)	74 (2.9)	251 (3.3)	151 (9.5)	113 (10.6)	291 (12.9)	49 (7.9)	275 (22.0)	170 (12.9)	116 (8.5)
III	667 (3.0)	31 (1.6)	69 (2.1)	12 (1.5)	36 (1.0)	47 (5.7)	33 (1.1)	14 (0.9)	7 (0.7)	47 (2.1)	19 (3.1)	132 (10.6)	35 (6.5)	135 (9.9)
IIIb	6955 (30.5)	536 (26.3)	627 (19.0)	174 (22.5)	369 (24.4)	361 (43.7)	1231 (42.4)	640 (40.3)	429 (40.4)	671 (30.6)	262 (42.4)	363 (29.5)	367 (28.0)	370 (27.0)
IIIc	392 (1.6)	19 (0.9)	29 (0.9)	11 (1.4)	63 (1.9)	27 (3.3)	54 (1.8)	27 (1.7)	-	52 (2.3)	12 (1.9)	10 (0.9)	39 (2.9)	44 (3.2)
IIIes	1748 (7.6)	319 (15.9)	319 (15.9)	528 (5.9)	46 (11.3)	404 (0.4)	3 (5.9)	179 (4.7)	74 (1.4)	15 (3.8)	84 (7.9)	49 (-)	45 (3.4)	2 (0.1)
IW	4121 (17.8)	232 (11.6)	486 (14.6)	104 (13.4)	488 (13.8)	177 (21.4)	534 (17.6)	342 (21.6)	241 (22.7)	526 (22.7)	132 (23.4)	274 (11.4)	291 (21.6)	294 (21.6)
IWes	1630 (7.1)	192 (9.7)	436 (13.1)	60 (7.7)	409 (11.5)	68 (8.2)	14 (4.7)	106 (6.6)	150 (0.7)	19 (6.9)	-	13 (3.1)	13 (-)	23 (1.7)
Wes	1911 (8.3)	236 (14.3)	206 (14.9)	112 (14.5)	491 (13.8)	17 (2.0)	71 (6.1)	-	71 (4.5)	97 (-)	1097 (4.3)	10 (1.6)	76 (6.1)	69 (5.0)
WIIes	1103 (4.8)	118 (5.9)	191 (5.8)	125 (16.2)	401 (11.3)	38 (4.6)	127 (4.2)	30 (1.9)	-	15 (0.7)	13 (2.1)	-	45 (3.5)	-
River, nala etc.	488 (2.1)	42 (2.1)	61 (1.8)	25 (3.2)	46 (1.3)	15 (1.8)	66 (2.2)	25 (1.6)	34 (3.2)	40 (1.8)	11 (1.8)	40 (3.2)	43 (3.3)	40 (2.9)
	22,941 100%	1997 100%	3317 100%	775 100%	3565 100%	827 100%	3022 100%	1587 100%	1062 100%	2243 100%	648 100%	1248 100%	1310 100%	1370 100%

Figures in bracket indicate percentage

7. Specific problems of each sub-watershed of the area in ha and percentage

Type of problem	Soils of the area	Total area of 13 sub-watershed in ha %	Aa1b	Aa1c	Aa2d	Aa2f	Aa2g	Ab1d	Ab1f	Ab1g	Ab1h	Ab2c	Ab2d	Ab2f	Ab2g
Seasonal water logging & draughtiness etc.	5 Angawan, Dhaawanpur, Dairya, Dari, Munbu, Phulsu	4936 (21.8)	447 12.6	143 17.9	272 13.7	494 14.9	129 16.6	122 19.7	566 45.3	437 33.2	572 41.3	509 16.9	299 13.8	336 31.6	654 29.
Moderate erosion of the area	Donru kari, Donbu, Bila, Jagaldaga, Matnag, Parkala, Sarra, Zalin	9808 42.7	1530 42.9	418 50.5	957 47.9	1492 44.9	272 35.1	311 50.3	363 29.5	412 31.5	378 27.6	1560 51.6	793 49.9	444 41.9	372 33
Severe erosion of the area	Bandukani, Bila, Jagaldaga, Matnag, Parkala, Sarra, Zalin	6399 27.3	1364 38.3	220 26.6	638 31.9	1149 34.7	331 42.7	136 22.0	202 16.2	315 24.1	327 23.9	654 21.6	310 19.6	233 21.9	523 23
Very severe erosion of the area	Bila, Parkala, Sarra	1261 5.6	178 4.9	26 3.2	83 4.4	121 3.7	18 2.4	38 6.2	72 5.3	103 7.9	53 3.8	233 7.7	160 10.1	15 1.4	151 6.3
River, Nala etc.	-	431 2.1	46 1.3	15 1.8	42 2.1	61 1.8	25 3.2	11 1.8	40 3.2	43 3.3	40 2.9	66 2.2	25 1.6	34 3.2	40 1.
		22941 100%	3565 100%	827 100%	1997 100%	3317 100%	775 100%	618 100%	1243 100%	1310 100%	1370 100%	3022 100%	1587 100%	1062 100%	2241 100%