

Report on detailed soil survey and land use of Bn2b, Bs2a, Bs2b, Bt1a, and Bt2a subwatersheds of Upper Bhavani catchment in Mannarghat taluk of Palghat district, Kerala State.

Abstract

1. Survey area : Bn2b, Bs2a, Bs2b, Bt1a and Bt2a subwatersheds of Upper Bhavani catchment in Mannarghat taluk, Palghat district, Kerala State.
2. Total area mapped and reported : 8121 hectares.
3. Period of work : December 1983 to June 1984
4. Soil series mapped and area (in hectares) covered under each

Sl. No.	Soil series name	Area in hectares					Total	Percentage
		Bn2b	Bs2a	Bs2b	Bt1a	Bt2a		
1.	Arali	68 (3.0)	68 (9.7)	57 (1.9)	-	7 (1.1)	200	2.4
2.	Bommiamapalli	-	-	124 (4.0)	23 (1.7)	50 (7.5)	197	2.4
3.	Doddagatti	17 (0.7)	46 (6.6)	82 (2.7)	39 (2.8)	5 (0.8)	189	2.4
4.	Gilsi	767 (33.4)	213 (30.6)	888 (28.9)	282 (20.3)	180 (27.2)	2330	28.7
5.	Kolapadiyur	89 (3.9)	55 (7.9)	1179 (38.4)	348 (25.0)	37 (5.6)	1708	21.0
6.	Malakkombu	31 (1.3)	-	87 (2.8)	-	8 (1.2)	126	1.6
7.	Palaiyur	540 (23.5)	25 (3.6)	354 (11.5)	-	3 (0.5)	922	11.3
8.	Sirakadaru	30 (1.3)	-	-	16 (1.1)	-	46	0.6
9.	Thekpannai	55 (2.4)	-	34 (1.1)	-	-	89	1.1
10.	Vadvani	589 (25.7)	241 (34.6)	15 (0.5)	557 (40.0)	359 (54.2)	1761	21.7
11.	Miscellaneous	110 (4.8)	49 (7.0)	254 (8.2)	127 (9.1)	13 (1.9)	553	6.8
Total		2296	697	3074	1392	662	8121	100.0

5. Land capability class

Class	Area in hectare					Total	Percentage	Soil series
	Fn2b	Bs2a	Bs2b	Bt1a	Bt2a			
II	78 (3.4)	45 (6.5)	48 (1.6)	45 (3.2)	51 (7.7)	267	3.3	Arali Bommiam- palli Doddagatt
III	76 (3.3)	23 (3.3)	131 (4.3)	32 (2.3)	40 (6.0)	302	3.7	A-rali Bommiam- palli Doddagatt Gilsil Sirakadar
IV	222 (9.7)	79 (11.3)	114 (3.7)	47 (3.4)	7 (1.1)	469	5.8	Bommiam- apalli Doddagatt Gilsil Malakkombu Sirakadar Thekpannai
VI	477 (20.8)	40 (5.7)	236 (7.7)	99 (7.1)	31 (4.7)	883	10.9	Doddagatti Gilsil Koalapadi- yur Malakkombu Palaiyur Thekpannai
VII	1333 (58.0)	461 (66.2)	2291 (74.5)	1042 (74.9)	520 (73.6)	5647	69.5	Vadvani
Misc.	110 (4.8)	49 (7.0)	254 (8.2)	127 (9.1)	13 (1.9)	553	6.8	
Total	2296	697	3074	1392	662	8121	100%	

6. Specific problematic area

1. Moderate erosion on slope above 3% on moderately deep and deeper soil.

Bn2b	Bs2a	Bs2b	Bt1a	Bt2a	Total
338	113	288	109	57	899

2. Severe erosion 1793* 501* 2497* 1141* 551* 6483*

3. Stoniness & rockiness 1290* 321* 1934* 969* 399* 4913*

4. Shallowness 644 241 49 557 359 1850

Total	2154	614	2785	1250	602	7405
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* Indicates more than one problem but accounted only once in the total problematic area.