

REPORT ON PRIORITIZATION OF SUBWATERSHEDS IN 2B1C (LOWER RAPTI) AND 2B1D (UPPER RAPTI) SUBCATCHMENT OF 2B1 (GHAGHRA) CATCHMENT , UPPER GANGES RIVER BASIN (LEFT BANK) IN BASTI, BAHRAICH, DEORIA, GONDA AND GORAKHPUR DISTRICTS UTTAR PRADESH.

ABSTRACT

1. Survey area :- 2B1C and 2B1D subcatchment of 2B1 Ghaghra catchment (Upper Ganga basin)
2. Location :- a) Longitude - $81^{\circ} - 33'$ to $83^{\circ} - 58'$ - E
 b) Latitude - $26^{\circ} - 06'$ to $28^{\circ} - 02'$ - N
 c) Agro climatic region - IV Middle Gangetic plain region.
 d) Soil conservation Zone No. Zone no. 3 Indogangetic and other alluvial plains region.
 e) Watershed Atlas of India - 1990
 Water resource region - 2 (Ganges region)
 Basin B (Upper Ganga Basin)
 Catchment 2B1 (Ghaghra)
 Subcatchment 2B1C (Lower Rapti)
 2B1D (Upper Rapti)
 Watersheds 2B1C 1 - 7 and 2B1D 1 - 8
3. Type of Survey :- Rapid reconnaissance survey for priority delineation.
4. Period of Survey :- December 1994 to March 1998.
5. Base map :- Survey of India topographical maps of 1 : 50,000 Scale.
6. Hydrological subdivision :-

Catchment	- 2B1
Subcatchment	- 2B1C and 2B1D
Watersheds	- 1 to 7 of 2B1C and 1 - 8 of 2B1D
Subwatersheds	- 2B1C 224
	- 2B1D 262
	Total - 486
7. Total area :- 15,12,155 (hac.)
8. Area under mapping :- 14,75,774 (hac.)
9. Miscellaneous area :- 36,381 (hac.)
 (Stream, waterbody, road & habitation etc.)

10. Areal extent of different erosion intensity Mapping Units :-

S.No.	Mapping Units	R.P. Value	Area in (hac.)	% of total area
	Parent material :-		(A) Alluvium :-	
1	A1	55	2,17,157	14.4
2	A2	66	39,811	2.6
3	A3	62	10,891	0.7
4	A4	57	1,03,267	6.8
5	A5	57	27,295	1.8
6	A6	55	8599	0.6
7	A7	56	1,45,304	9.6
8	A8	54	99,547	6.6
9	A9	59	9,096	0.6
10	A10	56	5,10,208	33.7
11	A11	55	2,42,869	16.0
12	A12	77	43,405	2.9
			(B) Sand stone and shale :-	
13	S1	76	5,443	0.4
14	S2	61	12,882	0.9
	Total		14,75,774	97.6
	Miscellaneous		36,381	2.4
	Grand Total		15,12,155	100.0 %

11. Gradation of subwatersheds into different priority categories of 2BIC and 2BID subcatchments :-

(1) 2 BIC Subcatchment

S.No.	Priority category (R.P.I)	No.of subwatersheds	Area in (hac.)	Percentage (%)
1	Very high	13	48,561	6.4
2	High	7	20,143	2.6
3	Medium	199	6,80,449	89.0
4	Low	5	14,996	2.0
Total		224	7,64,149	100.0

(2) 2BID Subcatchment.

S.No.	Priority category (R.P.I)	No.of subwatersheds	Area in (hac.)	Percentage (%)
1	Very high	4	12,655	1.7
2	High	12	22,527	3.0
3	Medium	244	7,04,526	94.2
4	Low	2	8,298	1.1
Total		262	7,48,006	100.0
Grand Total		486	15,12,155	100.00

Note :- Priority rating :-

1. Very high 65 and above.
2. High 60 - 64
3. Medium 55 - 59
4. Low 50 - 54

12. Watershed wise distribution pattern of priority subwatersheds into priority categories of 2BIC subcatchments :-

S.No.	Watershed code	Priority categories / Number / Area in hac. / %				
		Very high	high	Medium	Low	Total
1	2BIC -1	-----	-----	17 48,025 100.0	-----	17 48,025 6.3
2	2BIC-2	-----	-----	18 63,267 100.0	-----	18 63,267 8.3
3	2BIC -3	-----	-----	42 1,55,303 100.0	-----	42 1,55,303 20.3
4	2BIC -4	1 3949 3.0	2 3233 2.5	38 1,22,671 94.5	-----	41 1,29,853 17.0
5	2BIC -5	-----	1 1816 1.7	34 1,02,646 98.3	-----	35 1,04,462 13.6
6	2BIC -6	-----	1 3827 4.1	21 74,189 79.8	5 14,996 16.1	27 93,012 12.2
7	2BIC -7	12 44,612 26.2	3 11,267 6.6	29 1,14,348 67.2	-----	44 1,70,227 22.3
Total		13	7	199	5	224
(2BIC 1 -7)		48,561 6.4	20,143 2.6	6,80,449 89.0	14,996 2.0	7,64,149 100.0

Grand Total
(2BIC & 2BID)

13. Watershed wise distribution pattern of Priority subwatersheds in 2BID subcatchment.

8	2BID - 1	1 2460 3.4	1 1186 1.6	23 68,962 95.0	-----	25 72,608 9.7
9	2BID - 2	-----	-----	29 1,02,792 100.0	-----	29 1,02,792 13.8
10	2BID - 3	-----	-----	31 92,905 100.0	-----	31 92,905 12.4
11	2BID - 4	-----	-----	37 1,16,936 100.0	-----	37 1,16,936 15.6
12	2BID - 5	-----	-----	25 65,290 100.0	-----	25 65,290 8.7
13	2BID - 6	2 7,085 9.5	2 4,532 6.0	28 63,295 84.5	-----	32 74,912 10.0
14	2BID - 7	-----	7 11,486 8.2	45 1,28,201 91.8	-----	52 1,39,687 18.7
15	2BID - 8	1 3,110 3.8	2 5,323 6.4	26 66,145 79.8	2 8,298 10.0	31 82,876 11.1
	Total (2BID 1-8)	4 12,655 1.7	12 22,527 3.0	244 7,04,526 94.2	2 8,298 1.1	262 7,48,006 100.0
	Grand Total (2BIC & 2BID)	17 61,216 4.0	19 42,670 2.8	443 13,84,975 91.7	7 23,294 1.5	486 15,12,155 100.0

14. District wise distribution of Priority Area (hac.) of 2BIC and 2BID subcatchments with percentage :-

S.No.	Watershed code	Priority grouping	Bahraich	Basti	Deoria	Gonda	Gorakhpur	Total
1	2BIC - 1 - 7	Very high	---	48,561 100.0	----	----	----	48,561 6.4
2		High	---	11,267 55.9	----	----	8,876 44.1	20,143 2.6
3		Medium	---	89,045 13.1	1,61,788 23.8	----	4,29,616 63.1	6,80,449 89.0
4		Low	---	----	----	----	14,996 100.0	14,996 2.0
	Total		---	1,48,873	1,61,788	----	4,53,488	7,64,149
	%			19.5	21.2		59.3	100.0
1	2BID 1 - 8	Very high	3,110 24.6	2,460 19.4	----	7,085 56.0	----	12,655 1.7
2		High	3,279 14.6	1,113 4.9	----	18,062 80.2	73 0.3	22,527 3.0
3		Medium	1,63,917 23.3	2,01,076 28.5	----	2,73,367 38.8	66,166 9.4	7,04,526 94.2
4		Low	8,298 100.0	----	----	----	----	8,298 1.1
	Total		1,78,604	2,04,649	----	2,98,514	66,239	7,48,006
	%		23.9	27.3		40.0	8.8	100.0
Grand Total			1,78,604	3,53,522	1,61,788	2,98,514	5,19,727	1512155
%			11.8	23.4	10.7	19.7	34.4	100.0

15. District wise distribution of the survey area in hac. of 2B1C and 2B1D subcatchments :-

S.No.	Watershed code	Districts					Total
		Bahraich	Basti	Deoria	Gonda	Gorakhpur	
1	2B1C 1-7	----	1,48,873	1,61,788	-----	4,53,488	7,64,149
2	2B1D 1-8	1,78,604	2,04,649	-----	2,98,514	66,239	7,48,006
	Total	1,78,604	3,53,522	1,61,788	2,98,514	5,19,727	15,12,155
	%	11.8	23.4	10.7	19.7	34.4	100.0