

REPORT ON PRIORITISATION OF SUBWATERSHEDS
IN GANDAK CATCHMENT

A S B I R A C T

1. Survey area :- Gandak Catchment Bihar state below
Balmiki Nagar Barrage upto confluence of
river Gangaes.

2. Location :-
 - a> Latitude - 25° 20' - 27° 30' North
 - b> Longitude - 83° 45' - 85° 35' East
 - c> District - East Champaran, Gopalganj
Muzaffarpur, Samastipur
Saran, Vaishali and
West Champaran.

3. Agroclimatic Zone:-
IV - The middle Gangetic plain region.

4. Total area :- 4,54,252 (hact.)

5. Base map :- Topographical map of survey of India on
1:50,000 scale.

6. Period of survey:-
December 1990 to June 1991

7. Hydrological sub division:-
 - 1> Catchment - 1
 - 2> Subcatchment - 10
 - 3> Watershed - 21
 - 4> Subwatersheds - 159

8. Areal extent of various run - off potential mapping units

Sl. No.	Mapping Units	Area (hact.)	Percentage
1.	2.	3.	4.
1.	A1	1,02,852	22.6%
2.	A2	29,200	6.4%
3.	A3	6,638	1.5%
4.	A4	94,855	20.9%
5.	A5	3,086	0.7%
6.	A6	22,155	4.9%
7.	A7	90,543	19.9%
8.	A8	5,701	1.2%
9.	A9	30,720	6.8%
10.	A10	12,193	2.7%
11.	S1	13,189	2.9%
12.	S2	4,075	0.9%
13.	River/Nala	39,045	8.6%
Grand Total		4,54,252	100%

9. Gradation of subwatersheds into priority categories.

Sl No	Priority	Range of No R.P.I. Subwatersheds	Area (ha)	%	
1.	2.	3.	4.	5.	
1.	Very High	60 & above	2	4612	1.0
2.	High	56 - 59	33	88516	19.5
3.	Medium	51 - 55	124	361113	79.5
	Total:-		159	454252	100%

10. Sub catchment wise status of priority subwatersheds

Sl No.	Priority category	No. Ga	of Area Gb	of Gc	subcatchment Gd	Gf
1.	2.	3.	4.	5.	6.	7.
1.	Very high	-	-	-	-	-
2.	High	16,167 5	27,224 14	4,539 1	805 1	9,061 3
3.	Medium	1,34,260 45	66,785 26	48,364 14	12,442 7	7,934 2
	Total	150,427 50	94,009 40	52,903 15	13,247 8	16,995 5
	%	33.1	20.7	11.6	3.0	3.7

(Contd.)

Sl No	No./ Gg	Area Gh	of Gb	subcatchment Gj	Gk	Gm	Total % Area/No.
1.	8.	9.	10.	11.	12.	13.	
1.	-	-	1,483 1	3,140 1	-	-	1.0 4623 2
2.	7,299	9,876 2	5,312 1	8,213 1	-	-	19.5 88496 33
3.	12,893 2	21,607 6	28,236 12	17,603 7	11,009 3	-	79.6 361133 124
Total	20,192 4	31,483 8	35,031 16	28,956 10	11,009 3	-	454252 159
%	4.5	6.9	7.7	6.4	2.4	-	100%

11. District wise status of priority subwatershed :-

Sl No	Priority category	East Champaran	Gopalganj	Muzaffarpur
1.	2.	3.	4.	5.
1.	Very High	-	-	-
2.	High	612	6518	4256
3.	Medium	83785	22889	23220
4.	Total:-	84397	29707	274476
	%	18.6	6.5	6.0

Contd.

Sl No	Priority Category	Samastipur	Saran	Vaishali	West Champaran	Total
1.	2.	6.	7.	8.	9.	10.
1.	Very High	-	-	-	4623	4623
2.	High	4692	7285	20028	45125	88516
3.	Medium	1000	43107	39070	148042	361113
	Total:-	5692	50392	59098	197790	454252
	%	1.3	11.0	13.0	43.5	100%