

**SPACE APPLICATIONS CENTRE
AHMEDABAD**

Document Control and Data Sheet

1.	Report no.	:	Agri. 1113
2.	Title and subtitle	:	Watershed Prioritization of Dhansiri Catchment, Brahmaputra Basin
3.	Type of report	:	Project Report
4.	Pages and figures	:	217 pages, 13 figures and 29 maps
5.	No. of references	:	16
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7.	Originating unit	:	RSAG/RSA/SAC
8.	Corporate authors	:	-
9.	Abstract	:	The document presents a brief account of priority delineation of Dhansiri catchment (11.34 lakh ha) based on IRS data analysis supplemented by collateral data and in situ studies.
10.	Key words	:	Watershed Prioritization, catchment, run off potential, thematic maps, flood control, soil conservation, embankments
11.	Security Classification	:	Unrestricted
12.	Distribution statement	:	All concerned

the sub watersheds that the RPI varies from 20 to 70. These are further categorized into 5 priority classes such as 'Very high', 'high', 'moderate', 'low' and 'very low'. Higher the value of RPI suggests 'higher priority' whereas lower values indicate 'lower priority'. Number of sub-watersheds, their area and percentage under these priority classes is presented in the table 12. Statewise distribution of priority sub watersheds, area under different priority categories and percentage have been compiled in table 13.

Table 12 : Sub watersheds under different priority categories

Sr no.	Priority Category	Runoff Potential Index	No.of watersheds	Area in ha	Percentage
1	Very high	60 and above	52	2,48,990	21.9
2	High	59 to 55	28	1,33,670	11.7
3	Medium	54 to 50	43	2,18,840	19.2
4	Low	49 to 45	42	2,30,620	20.3
5	Very low	below 45	69	3,05,923	26.9
Total			234	11,38,043	100.00

It can be noted from the above table that out of 234 sub watersheds comprising an area of about 11.38 lakh ha, 52 sub watersheds occupying an area of about 2.5 lakh ha which is 21.9 percent of the total catchment area belong to the 'high priority' class whereas 28 sub watersheds covering about 1.34 lakh ha high priority area account for 11.7 percent of the total catchment area of the Dhansiri catchment. It is seen that 110, out of 234 sub watersheds belong to priority class high and very high. This admeasures about 3.8 lakh ha, nearly 25 percent of the total catchment area needs soil conservation measures to be taken up on priority basis. Statewise distribution of percent area of priority watersheds has been presented in fig. 13.

Table 13 : Statewise distribution of priority sub watersheds

A : Priority category in Assam

Sr no.	Priority Category	Runoff Potential Index	No.of watersheds	Area in ha	Percentage
1	Very high	60 and above	2	6,685	1.3
2	High	59 to 55	4	25,570	5.0
3	Medium	54 to 50	11	51,380	10.0
4	Low	49 to 45	28	1,66,095	32.4
5	Very low	below 45	60	2,63,153	51.3
Total			105	5,12,883	100.00

B : Priority category in Nagaland

Sr no.	Priority Category	Runoff Potential Index	No.of watersheds	Area in ha	Percentage
1	Very high	60 and above	50	2,34,725	38.0
2	High	59 to 55	27	1,16,570	18.8
3	Medium	54 to 50	35	1,66,355	26.8
4	Low	49 to 45	15	59,680	9.6
5	Very low	below 45	12	42,330	6.8
Total			139	6,19,495	100.00

C : Priority category in Manipur

Sr no.	Priority Category	Runoff Potential Index	No.of watersheds	Area in ha	Percentage
1	Very high	60 and above	2	5,665	100.00
2	High upto Very low	below 60	Nil	Nil	Nil

D : Composite category for Assam, Nagaland and Manipur

Sr no.	Priority Category	Runoff Potential Index	No.of watersheds	Area in ha	Percentage
1	Very high	60 and above	54	2,47,075	21.7
2	High	59 to 55	31	1,41,975	12.5
3	Medium	54 to 50	46	2,17,735	19.1
4	Low	49 to 45	43	2,25,775	19.9
5	Very low	below 45	72	3,05,483	26.8
Total			234	11,38,043	100.00

Table 14 : Composite Runoff Potential Units and their extent for entire catchment area

Sr.No.	CRPU	Area ha	Percentage	Sr.No.	CRPU	Area ha	Percentage
1	A	46619	4.1	10	K	3410	0.3
2	B	351004	0.8	11	L	28170	2.5
3	C	22813	2.0	12	M	63781	5.6
4	D	253845	2.3	13	N	105876	9.3
5	E	30705	2.7	14	P	15065	1.3
6	F	68577	6.0	15	Q	3590	0.3
7	G	16575	1.5	16	R	48005	4.2
8	H	48548	4.3	17	S	2020	0.2
9	J	29440	2.6				
Total :						11,38,043	100.00