

REPORT ON THE PRIORITIZATION OF SUBWATERSHEDS
OF UPPER PART OF GHAGGAR, FLOOD PRONE RIVER CATCHMENT
(UPTO CONFLUENCE OF GHAGGAR RIVER) AMBALA, KALKA, KAITHAL,
KURUKSHETRA, PATIALA, ROPAR, SIMLA, SIRMAUR DISTRICTS OF
HARYANA, PUNJAB, HIMACHAL PRADESH STATE AND CHANDIGARH (U.T.).

ABSTRACT

1. Survey area - Ghaggar catchment (upto confluence of Ghaggar River), Ambala, Kalka, Kaithal, Kurukshetra, Patiala, Ropar, Simla and Sirmaur districts, Haryana, Punjab and Himachal Pradesh States and Chandigarh U.T.
2. Location - $76^{\circ} - 9'$ to $77^{\circ} - 20'$ East Longitudes
 $29^{\circ} - 43'$ to $30^{\circ} - 10'$ North Latitudes
3. Total area - 6,36,046 ha
4. Period of survey - January 1988 to April 1990
5. Type of survey - Rapid Reconnaissance Survey for priority delineation.
6. Base material - Survey of India toposheets maps (1:50,000 scale).
7. Run off potential mapping units and their extent.

S. No.	Mapping unit	Haryana	Punjab	Himachal Pradesh	Chandigarh	Total area	Percentage
1.	A	5475	--	9675	--	15150	2.4
2.	B	3000	--	8950	--	11950	1.9
3.	C	2100	--	4900	--	7000	1.1
4.	D	50	--	125	--	175	N (0.03)
5.	E	6025	2975	--	50	9050	1.4
6.	F	4825	25	--	25	4875	0.8
7.	G	725	--	--	--	725	0.1
8.	H	9650	4125	--	395	14170	2.2
9.	J	4175	--	--	875	5050	0.8
10.	L	2450	--	75	210	2735	0.4
11.	M	550	550	--	--	1100	0.2
12.	N	1350	1125	25	197	2697	0.4
13.	P	14763	21435	--	550	36748	5.8
14.	Q	16905	29942	--	--	46847	7.4
15.	R	165527	172262	--	1225	339014	53.3
16.	R2	1840	7301	--	--	9141	1.4

S. No.	Mapping unit	Haryana	Punjab	Himachal Pradesh	Chandigarh	Total area	Percentage
17.	R3	79428	1493	--	--	80921	12.7
18.	S	3015	3083	--	50	6148	1.0
19.	T	6625	3416	--	--	10041	1.6
20.	U	600	2625	--	75	3300	0.5
21.	V	150	1325	--	--	1475	0.2
22.	W	150	400	--	825	1375	0.2
23.	Y	1065	4271	--	--	5336	0.9
	Habi	5150	5663	--	5625	16438	2.6
	River	1762	2388	25	235	4410	0.7
	Tank	75	--	--	100	175	N (0.03)
Total		337430	264404	23775	10437	636046	100.0

8. Hydrologic Division

- a) Catchment - Ghaggar (G)
- b) Subcatchment - 3 (Ga, Gb and Gc)
- c) Watersheds - 19
- d) Subwatersheds - 266

9. Statewise priority classification

S. No.	Priority category	Runoff generation potential Index Range	Haryana		Punjab		Himachal Pr.		Chandigarh		Total No. of sub water sheds	Total area
			No. of sub-water sheds including partly	Area in ha.	No. of sub-water sheds including partly	Area in ha.	No. of sub-water sheds including partly	Area in ha.	No. of sub-water sheds including partly	Area in ha.		
1.	Very high	50 and above	48	107975	11	15550	16	23775	6	4087	81	151387
2.	High	45-49	29	84438	7	15105	--	--	--	--	36	99543
3.	Medium	40-44	39	126042	56	170196	--	--	3	4425	98	300663
4.	Low	30-39	12	17025	34	63503	--	--	1	550	47	81078
5.	Very Low	below 30	2	1950	1	50	--	--	1	1375	4	3375
			130	337430	109	264404	16	23775	11	10437	266	636046

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10. Salient Features

Ga, Gb and Gc subcatchments of Ghaggar F.P.R. catchment covers 636046 ha. of which 337430 ha (53.1%) falls in Haryana, while 264404 ha (41.6%), 23775 ha (3.7%) and 10437 ha (1.6%) fall in Punjab, Himachal and Chandigarh (UT) respectively. Only 39.5% of the total catchment area qualifies for very high and high priority categories. Physiographically, dominant land forms are Alluvial plain (76.0%), Flood plain (7.8%), Himalayas Hills (5.4%) and Piedmonts (3.4%). Agriculture is dominant land use (86.3%) followed by forest vegetation (6.0%), Habitation & Nala (3.3%) and about (3.2%) is under grass land and sparse vegetation. 1.2% of the total area is under waste land.