

REPORT ON PRIORITIZATION OF SUB-WATERSHEDS IN
SAHIBI F.P.R. CATCHMENT (KRISHNAWATI RIVER) IN
HARYANA AND RAJASTHAN

A B S T R A C T

1. Survey Area : Sahibi FPR Catchment
(Krishnawati River)
2. Location : Long. $75^{\circ} - 51'$ to $76^{\circ} - 35'E$
Lat. $27^{\circ} - 38'$ to $28^{\circ} - 35'N$
3. Total area : 2,68,023 ha.
4. Period of Survey : Dec. 1989 to April 1990.
5. Type of Survey : Rapid Reconnaissance Survey
6. Base Map : Survey of India
Topographical maps in
the scale of 1:50,000

Runoff Potential Mapping Units and their extent

(II)

S.No.	Mapping Units	Haryana Area in ha	Rajasthan Area in ha	Total	Percentage
1.	A	1162	5862	7024	2.6
2.	C	75	5146	5221	2.0
3.	C1	5016	7019	12035	4.5
4.	E	19883	8155	28038	10.5
5.	E1	6970	7417	14387	5.4
6.	E2	342	720	1062	0.4
7.	E3	725	425	1150	0.4
8.	F	4875	50	4925	1.8
9.	F1	1090	385	1475	0.6
10.	G	175	625	800	0.3
11.	G1	150	1100	1250	0.5
12.	G2	100	882	982	0.3
13.	G3	2427	1858	4285	1.6
14.	H	425	25	450	0.2

(III)

S.No.	Mapping Units	Haryana Area in ha	Rajasthan Area in ha	Total	Percentage
15.	H1	1133	2452	3585	1.3
16.	J	1050	150	1200	0.4
17.	K	30478	3061	33539	12.6
18.	K1	5822	2853	8675	3.2
19.	L	63783	18199	81982	30.4
20.	M	19825	7800	27625	10.3
21.	M1	-	250	250	0.1
22.	N	2322	543	2865	1.1
23.	P	4443	1335	5783	2.2
24.	P1	325	425	750	0.3
25.	R	10050	1815	11865	4.4
26.	U	275	200	475	0.2
27.	U1	722	1858	2580	0.9
28.	V	120	1820	1940	0.7

(IV)

S.No.	Mapping Units	Haryana Area in ha	Rajasthan Area in ha	Total	Percentage
29.	V1	30	295	325	0.1
30.	V2	-	1248	1248	0.4
31.	Habi	75	25	100	0.1
32.	Tank	-	152	152	0.1
	Total	183873	84150	268023	100.0

8. Hydrologic Division

(a) Catchment	...	Sahibi Catchment
(b) Subcatchment	...	1
(c) Watersheds	...	4
(d) Sub-watersheds	...	54

9. Soil Characteristics

(a) Area under different landforms:

Physiography	Area in ha	Percentage
Hills	24280	9.1
Foot Hills	11352	4.2
Alluvial Plain	52237	19.6
Alluvial Aeolians	161469	60.2
Flood Plain	11865	4.4
Intermountain valley	6568	2.3
Habitation	100	0.1
Tank	152	0.1
Total	268023	100.0

(VI)

10. Area under different soil depth:

Effective depth	Area in ha	Percentage
Very shallow to shallow	17256	4.5
Very shallow to moderately deep	11307	4.2
Deep to very deep	982	0.3
Very deep	238224	88.8
Habitation	100	0.1
Tank	152	0.1
Total	268023	100.0

11. Area under different land uses:

Kind of landuse	Area in ha	Percentage
Cultivated	223989	83.5
Open scrub & grasses	33250	12.4
Medium forest	10532	3.9
Habitation	100	0.1
Tank	152	0.1
Total	268023	100.0

(VII)

12. Area under different soil textural groups:

Textural family	Area in ha	Percentage
Fine Loamy	32452	12.1
Coarse Loamy	99450	37.2
Coarse Loamy skeltal	25262	9.4
Sandy	110607	41.1
Area under tanks & Habi	252	0.2
Total	268023	100.0

13. Area under Slope Classes:

Slope %	Area in ha	Percentage
0 - 3%	89366	33.6
1 - 5%	98895	36.6
1 - 10%	29565	11.0
3 - 10%	20630	7.6
5 - 15%	7274	2.7
15% and above	18006	6.8
5 - 25%	4035	1.5
Habi & Tank	252	0.2
Total	268023	100.0

(VIII)

Priority categorisation and their distribution

Priority	Run off Potential	Haryana		Rajasthan	
		No. of sub watersheds	Area in ha	No. of sub watersheds	Area in ha
Very high	50 & above	1	6204	9	28881
High	45 - 49	4	16505	1	2808
Medium	40 - 44	3	9467	2	4184
Low	30 - 39	21	142722	12	48277
Very low	29 & below	1	8975	--	-
Total %		30	183873	24	84150

10. Salient Features

- Of the total survey area draining into Krishnawati river (Sahibi catchment), major part lies in Haryana (68.6%) and rest comes under part of Rajasthan State (31.4%).
- About 20.4 of the total catchment area has been assessed as very high and high priority area.