

Demarcation of priority subwatersheds in the flood prone catchment of Gomati (Sai river), Allahabad, Hardoi, Kheri, Jaunpur, Lucknow, Pratapgarh, Raibareli, Sultanpur and Unnao districts of Uttar Pradesh.

ABSTRACT

1. Survey area : Gomati catchment (Sai river), Allahabad, Hardoi, Kheri, Jaunpur, Lucknow, Pratapgarh, Raibareli, Sultanpur and Unnao districts of Uttar Pradesh.
2. Location : 25°30' to 27°55' north latitudes and 79° 55' to 83°0' east longitudes.
3. Total area : 12,27,480 hectares.
4. Period of Survey : November, 1982 to July, 1983.
5. Type of Survey : Rapid Reconnaissance survey for Priority delineation.
6. Base material : Survey of India topographical maps on 1:50,000 scale.

RUNOFF POTENTIAL MAPPING UNITS AND THEIR EXTENT:-

S.No.	Mapping Units	Area in ha.	Percentage
1.	A	46877	3.82
2.	B	860	0.07
3.	E	164274	13.37
4.	E1	105973	8.63
5.	E2	18473	1.53
6.	E3	7728	0.65
7.	E4	11701	0.96
8.	F	487274	39.66
9.	G	47949	3.90
10.	G1	6175	0.50
11.	G2	21911	1.80
12.	G3	86174	7.01
13.	G4	107070	8.72
14.	H	17350	1.41
15.	H1	1375	0.11
16.	H2	125	0.01
17.	K	650	0.05
18.	K1	87	0.01
19.	L	9537	0.77
20.	L1	15713	1.28
21.	L2	2475	0.20
22.	P	13575	1.11
23.	P1	21192	1.73
24.	R	30577	2.50
25.	Habitation	2388	0.20
TOTAL		1227480	100.00

8. Hydrologic division :

- (a) Catchment -- (G) - 1
- (b) Subcatchment - 10 (Gq, Gr, Gs, Gt, Gu, Gv, Gw, Gx, Gy, and Gz)
- (c) Watersheds - 48
- (d) Subwatersheds - 519

9. Distribution of area under different priorities

S.No.	Priority category	Average Potential runoff range	Nos. of Subwatersheds	Area in ha.	Percentage.
1.	Very high	60 and above	48	88449	7.2
2.	High	50 - 59	116	228987	18.7
3.	Medium	40 -49	196	463783	37.8
4.	Low	30 -39	139	386961	31.5
5.	Very Low	Below 30	20	59300	4.8
Total			519	1227480	100.0

10. Salient features :

1. Of the total reported area of Sai river, 317436 ha, (25.9%) fall under very high and high priority categories.
2. Very high and high priority subwatersheds are well distributed in all subcatchements.
3. Agriculture is dominant land use 81.3% followed by 13.2% saline/alkali waste land; ponds 2.9%; ravines 2.5% and forest 0.1%.
4. Physiographically, dominant land forms in descending orders are: basins and basinal plain - 43.6%; levees - 25.2%; basinal saline and sodic soils - 13.2%; recently reclaimed alkali lands - 8.7%; ponds - 2.9; ravines - 2.5%; point bar complex - 2.1%; sand dunes - 1.6% and miscellaneous - 0.2%.