

**Report on Prioritisation of subwatersheds in the Upper Luni (6A2) FPR catchment upto the confluence with Sukri Nadi, Ajmer, Barmer, Jalore, Jodhpur, Nagaur, Pali, Udaipur and Rajsamand districts, Rajasthan**

**ABSTRACT**

1. Survey area : Luni catchment up-to the confluence with Sukri Nadi  
 2. Location : Lat. 25° - 0' to 27° - 05' N  
 Lon. 71° - 40 to 74° - 45' E  
 3. Total area : 18, 66, 225 ha  
 4. Period of survey : December, 1990 to April, 1993  
 5. Type of survey : Rapid Reconnaissance survey  
 6. Base material : Survey of India topographical maps on 1:50, 000 scale

**7. Run off potential mapping units and their area**

Sl. No.	Mapping units	Area in ha	Percentage
1	A1	119645	6.4%
2.	A2	420360	22.5
3.	A3	274730	14.7
4.	A4	41650	2.2
5.	A5	26365	1.4
6.	A6	73795	4.0
7.	A7	4605	0.2
8.	AE1	11200	0.6
9.	AE2	96590	5.2
10.	AE3	32705	1.8
11.	AE4	16095	0.9
12.	G1	76945	4.1
13.	G2	64310	3.4
14.	G3	19750	1.1
15.	G4	101480	5.4
16.	G5	26790	1.4
17.	G6	19940	1.1
18.	G7	40955	2.2
19.	G8	183485	9.8
20.	G9	51990	2.8
21.	G10	6830	0.4
22.	G11	10480	0.6
23.	G12	12165	0.7
24.	G13	17065	0.9
25.	G14	17580	0.9
26.	SQ1	3385	0.2
27.	SQ2	695	0.1
28.	SQ3	32030	1.7
29.	Habitation	8032	0.4
30.	River	39290	2.1
31.	Tank	10265	0.5
32.	Misc.	5023	0.3
	<b>Grand total</b>	<b>1866225</b>	<b>100.0</b>

## 8. Hydrological division

(a)	Catchment	-	6A2 - (Mainly Luni)
(b)	Sub-catchment	-	6A2C and 6A2D (Middle Luni around Pali and West of Ajmer)
(c)	Watersheds	-	6A2C1, 6A2C2, 6A2C3, 6A2C4, 6A2C5, 6A2C6, 6A2C7, 6A2C8, 6A2C9, 6A2D1, 6A2D2, 6A2D3, 6A2D4, 6A2D5 and 6A2D6.
(d)	Subwatersheds	-	432

## 9. Distribution of area under different priority categories

Sl. No.	Priority category	Average run off	potential	No. of subwatersheds	Area in ha	Percentage
1.	Very high	> 65		70	244895	13.1
2.	High	60-64		50	179790	9.6
3.	Medium	55-59		112	538460	28.9
4.	Low	50-54		173	802355	43.0
5.	Very low	Below - 50		27	100725	5.4
		<b>Total</b>		<b>432</b>	<b>18,66,225</b>	<b>100.0</b>

## 10. Salient features

- Nearly 22.7% of the total area of Luni FPR catchment falls under very high and high priority categories.
- Physiographically, dominant land forms, in descending order of their areal extent are : Alluvial Plain (51.4%) ; misc. (Habitation and water bodies etc.) 3.3%; Fluvio - Aeolean (8.5%); Foot Hills (19.0%); Intermountain Valley (1.8%) and Hills (14.0%).
- Nearly 66.5% of the reported area is under cultivation; 6.3% under forest; 23.9% under open scrubs & grasses and remaining 3.8% area is under misc. lands.
- Only 6.4 % area is well managed whereas 58.0% area is moderately managed, 9.4% area is poorly to moderately managed, 7.1% area is poorly managed and remaining 15.8% area is unmanaged.
- Nearly 31.9% area is subjected to moderate to very severe erosion hazards.
- About 61.7% of the total area is under very deep, 1.7% area is under deep to very deep, 13.4% area is under moderately deep to deep and remaining area of about 23.2% is under shallow to very shallow soils.