

**REPORT ON PRIORITIZATION OF MICRO-WATERSHEDS IN 5G1C-OJAT SUB CATCHMENT ( NON R.V.P.) DISTRICTS AMRELI, JUNAGADH AND RAJKOT, GUJARAT**

**ABSTRACT**

1. Survey area : 5G1C -Ojat Sub catchment (Non R.V.P), Part of districts Amreli, Junagadh and Rajkot, Gujarat.
2. Location : a) Latitude 21° - 10' to 21° - 35' N  
b) Longitude 69° - 45' to 70° - 55' E
3. Agroclimatic Zone : 13 (Gujarat plains and hill region)
4. Total area Surveyed : 4,07,069 ha.
5. Type of Survey : Rapid Reconnaissance Survey for Priority Demarcation of Micro-watersheds
6. Period of Survey : November, 1999 to March, 2000
7. Base map used : Survey of India topographical maps of 1:50,000 scale
8. Hydrological Sub - division : a) Basin- '5G' southern Kathiawad  
b) Catchment - '5G1' River draining into Arabian Sea (Western part)  
c) Sub-catchment - '5G1C' -Ojat  
d) Watersheds - 5G1C1 to 5  
e) Subwatersheds - 92  
f) Microwatersheds - 607
9. **Priority Categorization :-**

S.No.	Priority Category	Sediment Yield Index Range	No. of Micro - watersheds	Area in ha.	Percentage
1.	Very high	1300 & above	45	30516	7.5
2.	High	1200 - 1299	43	27442	6.7
3.	Medium	1100 - 1199	97	61173	15.0
4.	Low	1000 - 1099	249	166473	40.9
5.	Very low	Below - 1000	173	121465	29.9
	<b>Total</b>		<b>607</b>	<b>407069</b>	<b>100.0</b>

## 10. Areal Extent of different Erosion Intensity Mapping Units

Sl.No.	EIMU	Weightage Value	Delivery Ratio	Area in ha.	Percentage
1	B01	18	0.86	1804	0.4
2	B02	14	0.78	19708	4.8
3	B03	20	0.80	9129	2.2
4	B04	14	0.77	5882	1.4
5	B05	19	0.73	29208	7.2
6	B06	14	0.62	7252	1.8
7	B07	15	0.63	138	-
8	B08	19	0.74	26553	6.5
9	B09	13	0.59	305	0.1
10	B10	14	0.61	49987	12.3
11	B11	14	0.65	3776	1.0
12	B12	17	0.70	6400	1.5
13	CA1	16	0.66	3955	1.0
14	CA2	12	0.56	1218	0.3
15	CA3	12	0.57	558	0.1
16	CA4	17	0.67	224	0.1
17	CA5	14	0.60	9272	2.3
18	CA6	13	0.59	16915	4.2
19	CA7	13	0.59	11629	2.9
20	CA8	14	0.61	25272	6.2
21	CA9	11	0.53	649	0.2
22	CA10	11	0.53	3298	0.8
23	LS1	19	0.75	4703	1.2
24	LS2	16	0.64	140037	34.4
25	LS3	18	0.69	23774	5.8
26	MISC			5423	1.3
<b>Grand Total</b>				<b>407069</b>	<b>100.0</b>

### 11. Distribution of area under different watersheds

S.No.	Watershed Code	No. of Microwatersheds	Area in ha	Area in %
1.	5G1C1	55	43840	10.8
2.	5G1C2	108	82952	20.4
3.	5G1C3	143	86569	21.3
4.	5G1C4	128	85646	21.0
5.	5G1C5	173	108062	26.5
	<b>GRAND TOTAL</b>	<b>607</b>	<b>407069</b>	<b>100.0</b>

### 12. Watershed wise status of Priority of Micro-watersheds.

S.No.	Watershed	No. of Micro-watersheds	Priority grouping				
			Very high	High	Medium	Low	Very low
1.	5G1C1	55	-	-	8	20	27
2.	5G1C2	108	-	-	8	25	75
3.	5G1C3	143	3	8	21	82	29
4.	5G1C4	128	8	11	27	67	15
5.	5G1C5	173	34	24	33	55	27
	<b>GRAND TOTAL</b>	<b>607</b>	<b>45</b>	<b>43</b>	<b>97</b>	<b>249</b>	<b>173</b>

### 13. Distribution of priority wise area under various districts / state

#### DISTRICT AMRELI (GUJARAT)

S. No.	PRIORITY CATEGORY	No. of Microwatersheds	Area (ha)
1	Very high (1300 & above)	12	3832
2	High (1200 - 1299)	4	625
3.	Medium (1100 - 1199)	5	1860
4.	Low (1000 - 1099)	4	760
5.	Very Low (Below 1000)	-	-
	<b>TOTAL</b>		<b>7077</b>

#### DISTRICT JUNAGADH (GUJARAT)

S. No.	PRIORITY CATEGORY	No. of Microwatersheds	Area (ha)
1	Very high (1300 & above)	42	25384
2	High (1200 - 1299)	41	24995
3.	Medium (1100 - 1199)	94	57870
4.	Low (1000 - 1099)	239	154741
5.	Very Low (Below 1000)	168	117005
	<b>TOTAL</b>		<b>379995</b>

#### DISTRICT RAJKOT (GUJARAT)

S. No.	PRIORITY CATEGORY	No. of Microwatersheds	Area (ha)
1	Very high (1300 & above)	2	1300
2	High (1200 - 1299)	3	1822
3.	Medium (1100 - 1199)	5	1443
4.	Low (1000 - 1099)	26	10972
5.	Very Low (Below 1000)	12	4460
	<b>TOTAL</b>		<b>19997</b>

#### 14. Salient Features of the Surveyed Area :-

1. Out of the total area of 4,07,069 ha, 3,79,995 ha (93.4%) fall in district Junagadh, followed by 19,997 ha (4.9 %) in Rajkot and 7,077 ha (1.7 %) in Amreli district Gujarat.
2. Very high and high category of priority microwatersheds cover 57,958 ha (14.2%) of the total surveyed area and need immediate treatment measures.
3. Medium category of priority microwatersheds account for 61,173 ha (15.0%) of the total area surveyed. The microwatersheds of medium priority adjacent to very high and high priority categories should also be taken into account while adopting soil conservation measures to check the soil erosion.
4. Very shallow to shallow soils cover 77,686 ha area comprising 19.1% of the total surveyed area.
5. About 77,797 ha (19.1%) of the total reported area suffer from severe erosion.
6. Cultivated area comprising rainfed, irrigated and intensively cultivated cover 2,72,685 ha which is about 67.0 % of the total area.
7. An area of 33,147 ha (8.1%) is covered under forests.
8. Pastures and grass lands occupy 12,847 ha area which is about 3.2% of the total area.

N.B:- The number of microwatersheds categorized under different priority categories and as shown in various districts will not tally with the total number of microwatersheds because of their repetition in more than one district in some cases.