

Inventory of Degraded Lands of East & West Imphal Districts, Manipur, Using Remote Sensing Techniques

Abstract

1. **Survey area:** East and West Imphal districts of Manipur excluding Jiribum sub-division
2. **Kind of Survey:** Land Degradation Mapping
3. **Level of Mapping:** Reconnaissance
4. **Scale:** 1:50,000
5. **Period of Survey:** March, 2003
6. **Base Materials:**
 - I) IRS-1D Geocoded Satellite Imagery of January, 2002 (1:50, 000 scale)
 - II) Survey of India Topographical Maps in 1:50,000 scale
7. **Total Area of the Districts:** East Imphal – 57800 ha.
(excluding Jiribum sub-division)
West Imphal – 51900 ha.
8. **Agroclimatic Zone:** Eastern Himalayan Region (II) as per Planning Commission
9. **Geographical Extent:** 93⁰ 46' to 94⁰ 08' E Longitudes
24⁰ 27' to 25⁰ 04' N Latitudes

10. Nature and Extent of Degraded Land

Sl. No.	Mapping Symbol	Description	East Imphal		West Imphal	
			Area (ha)	%	Area (ha)	%
Degradation due to Severe Water Erosion						
1.	We1a1	Agriculture, gently sloping land	1729	3.0	1367	2.6
2.	We1b4	Open scrub / culturable waste, undulating land	102	0.2	317	0.6
3.	We1c1	Agriculture, rolling land	2818	4.8	208	0.4
4.	We1d4	Scrub land, hilly	2991	5.2	355	0.7
Total			7640	13.2	2247	4.3
Degradation due to Water logging						
5.	W11a1	Agriculture, Seasonal water logging	1439	2.5	5719	11.0
6.	W13a4	Marshy land,	1159	2	7132	13.7
Total			2598	4.5	12851	24.7
Total Degraded Land			10238	17.7	15098	29.0

11. Nature and Extent of Normal Land of East & West Imphal

Sl. No.	Mapping Symbol	Land Characteristics	East Imphal		West Imphal	
			Area (ha)	%	Area (ha)	%
1.	AN	Normal land in Agriculture	30410	52.6	26332	50.7
2.	FN	Normal land in Forest	1090	1.9	37	0.1
3.	SN	Normal scrub land	10386	18.0	1791	3.4
4.	H.S	Habitation	4607	8.0	8284	16.1
5.	R	River	1069	1.8	358	0.7
Total Normal Land			47562	82.3	36802	71.0

12. Nature and Extent of Normal and Degraded Land

Sl. No.	Land Characteristics	East Imphal *		West Imphal	
		Area (ha)	%	Area (ha)	%
1.	Total Normal Land	47562	82.3	36802	71.0
2.	Total Degraded Land	10238	17.7	15098	29.0
Grand Total		57800	100.0	51900	100.0

* excluding Jiribum sub-division of East Imphal

13. Salient Feature:

- * Total degraded land covers 17.7% and 29.0% in East and West Imphal districts respectively
- * Out of total degraded land of 10,238 ha.(17.7%) in East Imphal district, degradation caused by severe water erosion and water logging covers 7640ha.(13.2%) and 2598ha.(4.5%) respectively.
- * In West Imphal district, degradation due to water logging and erosion covers an area of 12,851 (24.7%) and 2247 ha (4.3%) respectively, out of 15,098 ha of degraded land.
- * Degradation due to water erosion (13.2%) is a major problem in East Imphal district where as water logging (24.7%) problem is severe in the West Imphal.
- * Soil-water conservation measures vis-à-vis afforestation programme with enclosure to biotic influence may be adopted to arrest water induced erosion in East Imphal
- * Soil-water conservation measures, provision of adequate drainage facility to drain out excess water, fish farming may be adopted in water logged area of marshy land West Imphal for eco-restoration.