

Inventory of Degraded Lands of Jaintia Hills District of Meghalaya Using Remote Sensing Techniques

Abstract

- 1. Kind of Survey:** Land Degradation Mapping
- 2. Level of Mapping:** Reconnaissance
- 3. Scale:** 1:50,000
- 4. Period of Survey:** December 2001 to January 2002
- 5. Base Materials:**
 - I) IRS-1D Geocoded Satellite Imagery (1:50,000 scale)
 - II) Survey of India Topographical Maps in 1:50,000 scale
- 6. Total Area of the District:** ³⁸¹⁹⁰⁰ 3.819 lakh ha
- 7. Agroclimatic Zone:** Eastern Himalayan Region (II) as per Planning Commission
- 8. Geographical Extent:** 25° 03' to 25° 45' N Latitudes and 91° 59' to 92° 47' E Longitudes

9. Nature and Extent of Degraded Land

Sl. No.	Mapping Symbol	Description	Area(ha)	%
Degradation due to Severe Water Erosion				
1.	Wc1c4	Rolling, Open scrub	29,685	7.77
2.	Wc1d4	Rolling, Open scrub	62,630	16.4
Degradation due to Shifting Cultivation				
3.	Sc1d2	Forest, hilly, Current Jhumland	12,669	3.32
4.	Sc2d2	Forest, hilly, Abandoned, Jhumland	12,813	3.36
Degradation due to Open Cast Coal Mining				
5.	Mn1c4	Rolling, Open scrub	11,157	2.92
6.	Mn1d4	Hilly, Open scrub	13,106	3.43
Degradation due to Rocky Waste				
7.	Rw1c4	Rolling, Open scrub	21,500	5.63
8.	Rw1d4	Hilly, Open scrub	14,751	3.86
Degradation due to Rock-Quarry				
9.	Rq1c4	Rolling, Open scrub	355	0.09
		Total Degraded Land	1,78,666	46.78

10. Nature and Extent of Normal Land

Sl. No.	Mapping Symbol	Description	Area(ha)	%
1.	1	Agriculture	16,516	4.33
2.	2	Forest	1,81,912	47.63
3.	S	Habitation	3,102	0.81
4.	T	Tank	218	0.06
5.	R	River	1,486	0.39
		Total Normal Land	2,03,234	53.22

11. Salient Feature:

- Mapping of degraded land of Jaintia Hills District, Meghalaya was carried out on 1:50,000 scale employing remote sensing procedure.
- In the present study, the percentage of degraded land is estimated as 46.78 and distributed throughout the district.
- About 92,315ha (i.e., 24.17%) of land of the study area suffers from severe water erosion exhibiting the extreme process of denudation.
- About 3,6251ha (i.e., 9.49 %) of land suffer from rocky waste.
- Shifting Cultivation is one of the major degradation types covering 6.68% of the total district area. The area covered by current Jhumland is 12,669 ha (3.32%) while that of abandoned Jhumland is 12,813ha. (3.36%).
- The present study reveals that about 24,263ha (i.e., 6.35 %) of land suffer from open cast coal mining.