

Inventory of Degraded Lands of Morena District, Madhya Pradesh Using Remote Sensing Techniques

ABSTRACT

- **Kind of Survey** : Land Degradation Mapping
- **Level of Mapping** : Reconnaissance
- **Scale** : 1:50,000
- **Period of Survey** : May-June, 1994, February, 1996 and June, 1997
- **Base Materials** : Geo-coded, IRS-IB, LISS-II False Colour Composite Imagery on 1:50,000 scale.
- **Total area of District** : 11,68,336 ha
- **Agro- climatic Zone** : VIII - Central Plateau & Hill Region (2) Gird Zone
- **Geographical Extent** : 25° 15' to 26° 53' N Latitudes
76° 10' to 78° 38' E Longitudes
- **Statement showing Nature and Extent of Degraded and Non Degraded Land**

S. No.	Nature of Land	Total Area (ha)	Percentage
A. Degraded Land			
1.	Severe to very severe water erosion	1,63,596	14.00
2.	Moderately to severely gullied lands	46,578	3.99
3.	Ravinous land	1,07,658	9.22
4.	Salt affected lands	29,825	2.55
5.	Water logged lands	25,501	2.18
6.	Stone/rock quarried lands	395	0.03
	Sub Total	373553	31.97
B. Non-Degraded Land			
1.	Agriculture lands	2,92,504	25.04
2.	Forest lands	4,41,978	37.83
3.	Other lands	26,849	2.30
4.	Miscellaneous lands	33,452	2.86
	Sub total	794783	68.03
	Grand total	11,68,336	100%

> Salient Findings

- i) Out of total area of 11,68,336 ha of the district Morena about 7,94,783 ha (68%) area is non degraded.
- ii) Out of the total area of the district, 3,73,553 ha (32.0 %) is degraded due to one or the other kind of degradation.
- iii) Out of the total area of the district, about 1,07,658 ha (9.2%), which is 28.8% of the total degraded lands is under shallow to very deep ravines and needs immediate soil conservation measures/treatments.
- iv) Out of the total area of the district about 46,578 ha (4.0%), which is 12.5% of the total degraded land is suffering from moderately to severely gullied lands and also require immediate attention for erosion control.
- v) Out of the total area of the district about 1,63,596 ha (14.0%), which is 43.8% of the total degraded lands is suffering from severe to very severe water erosion and attracts the planners to control further degradation of these lands.
- vi) Out of the total area of the district about 29,825 ha (2.6%) and 25,501 ha (2.2%) is under salt affliction and water-logging which is 8.0 % and 6.8 % of the total degraded lands, respectively.
- vii) Of the total land of the district an area of about 4,43,609 ha (38.0 %) is available for agriculture out of which an area of about 1,51,105 ha (12.9%) is degraded due to one or the other kind of degradation.
- viii) Similarly, of the total land of the district an area of 4,82,093 ha (41.3%) is under forests, out of which 39,684 ha (3.4%) is degraded mainly by water erosion and 431 ha (0.04%) by water logging, respectively.
- ix) Of the total area of the district an area of about 2,09,182 ha (17.9%) is mainly under open scrub lands, out of which 1,82,333 ha (15.6.0%) is degraded due to one or the other kind of degradation.
- x) Stone/rock quarrying is very common phenomenon in most parts of the district wherever it is available but due to scale limitations it is not possible to map out every area/spot separately, except some large pockets in the hilly & plateau areas.