

**INVENTORY OF DEGRADED LANDS OF NASIK DISTRICT
MAHARASHTRA,
USING REMOTE SENSING TECHNIQUES.**

A B S T R A C T

1. (a) **Kind of Survey** : Land Degradation Mapping.
 (b) **Level of Mapping** : Reconnaissance.
 (c) **Scale** : 1:50,000
2. **Period of Survey** : January 1998 to May 1999
3. **Base Materials** : IRS IB - LISS II False colour composite of April 1991 data and Survey of India Toposheets in 1:50,000 scale.
4. (a) **Total Area of District** : 15,27,764 ha.
 (b) **Agro-Climatic Zone** : Western Plateau and Hill region.
 (c) **Geographical Extent** : 19⁰ 35' to 20⁰ 50' N. latitudes
 and 73⁰ 15' to 74⁰ 56' E longitudes.

Nature, Extent and Percentage of Degraded and Normal Lands in Nasik District (Maharashtra).

Sl. No.	Mapping Symbol	Description	Area (ha)	% age
1.	2.	3.	4.	5.
1.	A1a	Agriculture, plain, severe to very severe erosion	73,131	4.8
2.	A1b	Agriculture, undulating, severe to very severe erosion.	1,42,285	9.3
3.	A1c	Agriculture, hilly, severe to very severe erosion.	68,753	4.5
4.	F(A)1c	Forest, changed to agriculture, hilly, severe to very severe erosion.	1,483	0.1
5.	A1e	Agriculture, undulating 20-25% surface coverage of gullied land.	4,710	0.3
6.	O1a	Open scrub / pasture, plain, severe to very severe erosion.	15,468	1.0
7.	O1b	Open scrub / pasture, undulating, severe to very severe erosion.	42,596	2.8
8.	O1c	Open scrub / pasture, hilly, severe to very severe erosion.	44,588	2.9

II

1.	2.	3.	4.	5.
9.	O1f	Open scrub / pasture, hilly, 25-50% surface coverage of gullied land.	5,000	0.3
10.	F1a	Forest, plain, severe to very severe erosion.	7,982	0.5
11.	F1b	Forest, undulating, severe to very severe erosion.	29,577	2.0
12.	F1c	Forest, hilly, severe to very severe erosion.	1,90,809	12.5
13.	F1f	Forest, hilly, 25-50% surface coverage gullied land.	2,1030	1.4
Total			647462	42.4
<u>Normal Area</u>				
1.	AN	Agriculture, Normal land	8,03,411	52.5
2.	O(A)N	Open scrub / pasture, changed to Normal agriculture	4081	0.3
3.	ON	Open scrub / pasture, Normal land	7498	0.5
4.	F(A)N	Forest, changed to Normal agriculture	2743	0.2
5.	FN	Forest Normal land	15980	1.0
<u>Miscellaneous land</u>				
1.	7	Rock Outcrop	10120	0.7
2.	H	Habitation	18,240	1.2
3.	R	River / Nalla	11,096	0.7
4.	W	Water bodies (Lake, Tank, Reserviors)	7,133	0.5
			8,80,302	57.6
Grand Total			15,27,764	100.0

6. Salient features :

- Out of total geographical area of 1527764 ha. of Nasik district, 42.4% area (647462 ha) suffers from land degradation problems. Major problem is the water erosion.
- Remote sensing data possess high potential for mapping and monitoring of degraded lands.
- Change in land use has been noticed from forest to agriculture in 1483 ha (0.1%).

III

- An area of 30740 ha. (2.0%) is subjected to gully erosion.
- Severe to very severe water erosion is prevalent in 616722 ha (40.4%) area of which 284219 ha. (18.6%) is under agriculture, 102652 ha. (6.7%) is under open scrub/pasture and 229851 ha (15.0%) is under forest.
- Major part of the district area amounting 880302 (57.6%) ha is normal land of which 803411 ha. (52.6%) is agriculture land, 66640 (4.3%) ha is open scrub / pasture, 13970 (0.9%) ha is forest 10120 ha (0.7%) rock outcrops 36469 (2.4%) ha is under other land use i.e. habitation, river and water bodies.