

Inventory of Degraded Lands of Nagaur District, Rajasthan Using Remote Sensing Techniques

ABSTRACT

- **Kind of Survey** : Land Degradation Mapping using Remote Sensing Techniques
- **Level of Mapping** : Reconnaissance
- **Scale** : 1:50,000
- **Period of Survey** : October, 1994
- **Base Material** : IRS-IA LISS II FCC (Band 2,3 & 4) acquired in 1989
- **Total Area** : 17,64,504 ha
- **Agro-Climatic Zone** : 14-Western Dry Region
- **Geographical Extent** : 73° 05' to 75° 20' East Longitudes
26° 25' to 27° 45' North Latitudes
- **Nature, Extent and Percentage of Degraded Lands in Nagaur District**

Mapping Symbol	Description	Area (ha)	%
Water Erosion			
A1b	Agriculture, Undulating, Severe to Very Severe Erosion	3,798	0.21
A1e	Agriculture, Undulating, 25-50% surface coverage of gullied land.	18,698	1.06
O1b	Open Scrub, Undulating, Severe to Very Severe Erosion	5,531	0.31
O1c	Open Scrub, Hilly and Mountainous, Severe to Very Severe Erosion	1,416	0.08
O1e	Open Scrub, Undulating 25-50% Surface coverage of gullied land	3,472	0.20
O1h	Open Scrub, more than 50% Surface coverage of gullied land	616	0.03
F1c	Forest, Hilly and Mountainous, Severe to Very Severe Erosion	7,712	0.44
F1e	Forest, Undulating, 25-50% Surface coverage of gullied land	10,904	0.62
	Sub Total	52,138	2.95
Wind Erosion			
A2b	Agriculture, Interdunal land, Severe Erosion	57,885	3.28
A2c	Agriculture, Dunal, Severe Erosion	1,34,599	7.63
O2b	Open Scrub, Interdunal land, Severe Erosion	25,146	1.43
O2c	Open Scrub, Dunal, Severe Erosion	17,658	1.00
F2b	Forest, Interdunal/Non Dunal, Severe Erosion	2,201	0.12
	Sub Total	2,37,489	13.46

Salt Affliction			
A3a	Agriculture, Salt Encrustation, less than 50% surface coverage	10,800	0.61
A3b	Agriculture, Salt Encrustation, more than 50% surface coverage	1,821	0.10
O3a	Open Scrub, Salt Encrustation, less than 50% surface coverage	471	0.03
O3b	Open Scrub, Salt Encrustation, more than 50% surface coverage	1,372	0.08
	Sub Total	14,464	0.82
Waterlogging			
O4a	Open Scrub, Seasonal Waterlogging	643	0.04
	Sub Total	643	0.04
Other Degraded Types			
A6c	Agriculture, Rock Quarries	884	0.05
A6g	Agriculture, Stony Waste	3,907	0.22
A6h	Agriculture, Salt Flats	492	0.03
O6c	Open Scrub, Rock Quarries	1,565	0.09
O6g	Open Scrub, Stony Waste	3,907	0.22
O6h	Open Scrub, Salt Flats	2,844	0.16
	Sub Total	56,386	3.20
	Total Degraded Land	3,61,120	20.47
Normal Areas			
AN	Agriculture, Normal Land	1,303,889	73.89
ON	Open Scrub, Normal Land	24,591	1.39
O(P)N	Open Scrub changed to Plantation, Normal Land	1,793	0.10
FN	Forest, Normal Land	1,589	0.09
	Miscellaneous land	71,522	4.05
	Sub Total	1,403,384	79.53
	Grand Total	1,764,504	100.00

➤ **Salient Features:**

- ⇒ 20.47% area is identified under different types of land degradation.
- ⇒ 2.95% area is affected by water erosion.
- ⇒ 13.46% area is affected by wind erosion.
- ⇒ 0.82% area is affected by salt affliction.
- ⇒ 0.04% area is affected by seasonal waterlogging.
- ⇒ 0.27% area is under stony and rocky waste land.
- ⇒ 73.90% area is under normal agriculture.
- ⇒ 1.39% area is under normal open scrub.
- ⇒ 0.05% area is under quarries/spoils.
- ⇒ 0.09% area is under normal forest.