

Inventory of Degraded Lands of Ajmer 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** : May - June, 1996
- **Base Material** : IRS-IB LISS II Geocoded FCC (Band 2,3 & 4) acquired in March and May, 1996
- **Total Area** : 8,42,388 ha
- **Agro-Climatic Zone** : Central Plateau & Hills Zone-8
- **Geographical Extent** : 25° 38' to 26° 52' North Latitudes
73° 54' to 75° 22' East Longitudes

➤ **Nature, Extent and Percent of Degraded Lands:**

S. No.	Mapping Symbol	Description	Area (ha)	%
1.	Degradation due to Water Erosion			
	<i>i</i>	<i>Severe to Very Severe</i>		
	A1a	Agriculture, plain	88,400	10.49
	O1a	Open scrub, plain	80,025	9.50
	A1a/O1a	Agriculture/open scrub, plain	3,375	0.40
	O(A)1a	Open scrub changed to agriculture, plain	225	0.02
	A1b	Agriculture, undulating	8,000	0.95
	O1b	Open scrub, undulating	45,450	5.39
	O(A)1b	Open scrub changed to agriculture, undulating	650	0.08
	A1c	Agriculture, hilly	925	0.11
	O1c	Open scrub, hilly	10,900	1.29
	F1a	Forest, plain	10,000	1.19
	F1b	Forest, undulating	9,850	1.17
	F1c	Forest, hilly	10,675	1.27
	O(F)1b	Open scrub changed to forest, undulating	325	0.04
	F1c/O1c	Forest, hilly / open scrub, hilly	1,500	0.18
	Total		2,70,300	32.08

	ii	<i>Moderately to Severely Gullied</i>		
	Old	Open scrub, plain	1,275	0.15
	iii	<i>Severe to Very Severely Gullied</i>		
	O1g	Open scrub, plain	700	0.09
	Total		2,72,275	32.32
2.	Degradation due to Wind Erosion			
		<i>Severe to Very Severe Erosion</i>		
	A2b	Agriculture, interdunal	10,490	1.25
	A2c	Agriculture, dunal	1,450	0.17
	O2b	Open scrub, interdunal	3,675	0.44
	O2c	Open scrub, dunal	1,550	0.19
	Total		17,165	2.03
3.	Degradation due to Salt Affliction			
	A3a	Agriculture, < 50% surface coverage of salt	23,385	2.78
	A3b	Agriculture, > 50% surface coverage of salt	1,275	0.15
	O3a	Open scrub, < 50% surface coverage of salt	51,175	6.08
	O3b	Open scrub, > 50% surface coverage of salt	2,310	0.27
	Total		78,145	9.27
4.	Degradation due to Waterlogging			
	A4a	Agriculture, seasonal waterlogging	2,150	0.26
	O4a	Open scrub, seasonal waterlogging	18,153	2.16
	O4b	Open scrub, permanent waterlogging	6,650	0.79
	Total		26,953	3.21
5.	Other Degradation Types			
	O6b	Open cast mines & spoils	25	0.01
	O6c	Rock quarry & spoils	4,350	0.52
	Total		4,375	0.53
	Total Degraded Lands		3,98,913	47.36

➤ **Nature, Extent and Percent of Non-Degraded Lands:**

S. No.	Mapping Symbol	Description	Area (ha)	%
1.	AN	Agriculture, Non degraded	3,59,265	42.65
2.	FN	Forest, Non degraded	9,650	1.14
3.	ON	Open scrub, Non degraded	51,770	6.15
4.	O(A)N	Open scrub changed to agriculture, Non degraded	2,850	0.34
5.	O(P)N	Open scrub changed to plantation, Non degraded	450	0.05
6.	H	Habitation	5,390	0.64
7.	R	River	9,170	1.09
8.	W	Water bodies	4,930	0.58
	Total Non-degraded lands		4,43,475	52.64

➤ Salient Features:

- ⇒ Water erosion is the main degradation type covering 32.32 % of the total district area.
- ⇒ Degradation due to salt affliction is the next major degradation type covering 9.27% of the total area.
- ⇒ At places degradation due to wind erosion (2.03%), waterlogging (3.21%) and degradation due to mining activities and rock quarries (0.53%) have been noticed.
- ⇒ Around 52.64% area of the district has been categorised as normal lands.
- ⇒ Degraded lands are mostly confined in agricultural land followed by open scrub and forest land respectively.