

**INVENTORY OF DEGRADED LANDS OF BHARUCH DISTRICT, GUJARAT  
USING REMOTE SENSING TECHNIQUES.**

**ABSTRACT**

1. (a) Kind of Survey : Land Degradation Mapping  
(b) Level of Mapping : Reconnaissance  
(c) Scale : 1:50,000
  
2. Period of Survey : December 2001 to February 2002
  
3. Base Material : (I) IRS-1B LISS- II False Colour composite  
March, 1994 to September, 1994  
(II) Survey of India topographical maps on  
1:50,000 scale
  
4. (a) Total Area of District : 7, 76,430 ha.  
  
(b) Agro Climatic Zone : 13 (Gujarat Plains and Hills Region)  
South Gujarat zone GJ-2 (Bharuch)  
  
(c) Geographical Extent : 21° 20' to 22° 15' North Latitude  
72° 16' to 73° 55' East Longitude

### 5. Nature, extent and percentage of degraded lands in Bharuch district.

Sl. No.	Type of Degradation	Area in ha.	Percentage
<b>1.</b>	<b>Water Erosion</b>		
i.	Plain area affected by severe to very severe water erosion	15057	1.94
ii.	Undulating area affected by severe to very severe water erosion	71644	9.23
iii.	Rolling land affected by severe to very severe water erosion	32095	4.13
iv.	Hilly area affected by severe to very severe water erosion	8238	1.06
	<b>Sub Total</b>	<b>127034</b>	<b>16.36</b>
<b>2.</b>	<b>Salt Affliction</b>		
i.	Area with salt encrustation (white), having less than 50% surface coverage.	1945	0.25
ii.	Area with salt encrustation (white), having more than 50% surface coverage.	1041	0.13
	<b>Sub Total</b>	<b>2986</b>	<b>0.38</b>
<b>3.</b>	<b>Water logging</b>		
i.	Seasonal water logging. (Other than paddy areas.)	1427	0.19
ii.	Inland marshes (Other lands)	641	0.08
	<b>Sub Total</b>	<b>2068</b>	<b>0.27</b>
<b>4.</b>	<b>Other Degradation</b>		
i.	Brick kiln	106	0.01
ii.	Open cast mining	350	0.05
iii.	Rock quarries	54	0.01
iv.	Mudflats / Saltpan / Mangroves	60243	7.76
	<b>Sub Total</b>	<b>60753</b>	<b>7.83</b>
	<b>Total degraded lands</b>	<b>192841</b>	<b>24.84</b>
<b>5.</b>	<b>Normal Lands</b>		
i.	Normal Agricultural Land	369757	47.62
ii.	Normal Forest Land	120479	15.52
iii.	Normal Open Scrub	29756	3.83
	<b>Sub Total</b>	<b>519992</b>	<b>66.97</b>
<b>6.</b>	<b>Miscellaneous Lands</b>		
i.	Habitation	13279	1.71
ii.	Industries	2264	0.29
iii.	River course / River sands	36995	4.77
iv.	Water bodies	11059	1.42
	<b>Sub Total</b>	<b>63597</b>	<b>8.19</b>
	<b>Grand Total</b>	<b>776430</b>	<b>100.00</b>

## 6. Salient Findings:

- Out of total geographical area of 7, 76,430 ha. of Bharuch district, 1, 92,841 ha. (24.84%) suffers from various kinds of degradation problems.
- Water is the main degradational feature covering 1, 27,034 ha. (16.36%), out of the total area.
- An area of 2,986 ha. (0.38%) is suffering from salt affliction, mainly due to coastal salinity.
- An area of 2068 ha. (0.27%) is affected by water logging.
- An area of 60,243 ha. (7.76%) is affected by mudflats / saltpan / mangroves.
- Other degraded types of lands, like brick kiln, open cast mining and rock quarries accounts for 510 ha. (0.07%), of the district area.
- Major part of the district area accounting 5, 19,992 ha. (66.97%) normal lands. Out of which 3, 69,757 ha. (47.62%) is agriculture lands, 1, 20,479 ha. (15.52%) forest lands and 29,756 ha. (3.83%) open scrub.
- Area under habitation, industries, rivers and water bodies accounts for 63,597 ha. (8.19%).