

Inventory Of Degraded Lands of Palamau District, Bihar Using Remote Sensing Techniques

ABSTRACT

1	Details of Survey ⇒ Kind of Survey ⇒ Level of Mapping ⇒ Scale	Land degradation mapping Reconnaissance 1:50,000
2.	Period of Survey	1994-95 (Initial) 1996-97 (Revised)
3.	Base material	IRS IA (FCC Band 2, 3, 4) on 1:50,000 scale S. O. I. Toposheet on 1:50,000 scale Report No. Agri. 727, 731, 779, 1032 and 1055
4.	Details of Area ⇒ Total area of district ⇒ Agroclimatic Zone ⇒ Zone of Bihar ⇒ Soil Conservation Region of India ⇒ Geodetical extent	8,02,291 ha Zone VII-The Eastern Plateau and Hill Region Western Plateau Zone Region No. 8- The Eastern Red Soil 23°20' -24°24' North Latitudes 83°52'-85°0' East Longitudes

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

Mapping Symbol	Description	Area (ha)	Percentage
	Water Erosion		
A1a	Agriculture, plain, severe to very severe erosion	7426	0.93
A1b	Agriculture, undulating, severe to very severe erosion	22783	2.84
A1d	Agriculture, plain, 25-50 % surface coverage of gullied land	43	0.0
A1e	Agriculture, undulating, 25-50% surface coverage of gullied land	7886	0.98
O1a	Open scrub, plain, severe to very severe erosion	56	0.01
O1b	Open scrub, undulating, severe to very severe erosion	2140	0.27
O(A)1b	Open scrub changed to agriculture, undulating, severe to very severe erosion	214	0.03
O(F)1b	Open scrub changed to forest, undulating, severe to very severe erosion	736	0.09
O1c	Open scrub, hilly, severe to very severe erosion	153	0.02
F1a	Forest, plain, severe to very severe erosion	47	0.0
F1b	Forest, undulating, severe to very severe erosion	7647	0.95
F(A)1b	Forest changed to agriculture, undulating, severe to very severe erosion	8	0.0
F1c	Forest, hilly, severe to very severe erosion	622	0.08
F1d	Forest, plain, 25-50 % surface coverage of gullied land	221	0.03
F1e	Forest, undulating, 25-50% surface coverage of gullied land	311	0.04
	Sub total	50293	6.27
	Other Degraded Areas		
O6b	Open scrub, mines, quarries, spoils & dumps	70	0.01
	Sub total	70	0.01
	Total Degraded Land	50363	6.28
	Normal Area		
AN	Agriculture, normal land	429291	53.51
FN	Forest, normal land	301216	37.54
ON	Open scrub, normal land	1969	0.25
H	Habitation	3048	0.38
R	Sheet Rock	3891	0.48
W	Water bodies	12513	1.56
	Sub total	751928	93.72
	Grand Total	802291	100

6. Salient Findings

- ⇒ Water erosion is the main degradation type covering 6.27% of the total area, out of which 5.22% is affected by severe to very severe erosion and the rest 1.05% is moderately to severely gullied land.
- ⇒ At places degradation due to mines, quarries, spoils and dumps are noticed but could not be mapped due to cartographic limitation. However, an area of 70 ha under this degradation type, in coal mines area of Rajahra O. C. P. has been mapped which constitutes 0.01% of the total area.
- ⇒ Out of the total 6.27% area affected by erosion, Daltonganj and Latehar Sub-division share 2.73% and 3.54% respectively.
- ⇒ Degraded lands are mostly confined in agricultural land which accounts for 4.76% followed by forest land (1.10%) and open scrubs (0.42%).
- ⇒ Most of the degraded lands are confined in undulating area which share 5.23% followed by plain 0.42% and hilly area 0.09%.
- ⇒ 93.72% of the district area is normal land under various land uses.
- ⇒ The density of population is 205 per sq km only which is much below the figure of the state.
- ⇒ Literacy percentage is only 26%. Marginal and small farmers contribute 73% of the farmer's population.
- ⇒ Average holding of marginal and small farmers ranges between 0.38 to 1.38 ha.