

Inventory of Degraded Lands of Palghat District, Kerala Using Remote Sensing Techniques

ABSTRACT

1. Details of Survey
 - a. Kind of Survey Land Degradation Mapping
 - b. Level of mapping Reconnaissance
 - c. Scale 1:50,000
 2. Period of Survey October, 1994 to Jan. 1998
 3. Base materials IRS-1A LISS II False Colour composite of March, 1989 and Survey of India topographical maps on 1:50,000 scale
 4. Total area of district 4,48,000 ha
 5. Agro-climatic zone West Coast Plains and Ghats Region (zone XII)
 6. Geographical extent $10^{\circ}20'$ - $11^{\circ}15'$ N latitudes and $76^{\circ}1'$ - $76^{\circ}55'$ E longitudes
5. Nature, extent & percent of degraded lands in Palghat district

Mapping symbol	Description	Area (ha.)	Percentage
<u>WATER EROSION</u>			
F1c	Forest, hilly, severe to very severe erosion	7685	1.7
O1c	Open scrub/othr lands, hilly, severe to very severe erosion	7925	1.8
P(O)1c	Plantation changed to open scrub hilly, severe to very severe erosion	127	-
P1c	Plantation, hilly, severe to very severe erosion	12	-
F(O)1c	Forest changed to open scrub, hilly, severe to very severe erosion.	430	0.1
	Sub-total	16179	3.6
O6c	Rock quarries and spoils, severe to very severe erosion	25	-
	Total degraded lands	16204	3.6

Normal Area

AN	Agriculture, normal land	193410	43.2
FN	Forest, normal land	104305	43.2
PN	Plantation, normal land	93011	20.7
ON	Open scrub, normal land	12476	2.8
O(P)N	Open scrub changed to plantation normal land	144	0.1
H	Habitation	8318	1.8
W	Reservoir and water bodies	8885	2.0
	Others (river, roads etc.)	9913	2.2
R	Rock-out crops	1334	0.3
	Sub-total	431796	96.4
	Grand Total	448000	100%

6. Salient findings

- Out of total geographical area of 4,48,000 ha of Palghat district, 3.6% area (16,204 ha) suffers from land degradation problems.

The major problem is water erosion that accounts for 99.8% of the total problematic area of the district. The other degradation problem is rock quarries that covers 0.2% of problematic area.

Change in land use has been noticed in an area of 701 ha (0.2%) of which 557 ha (0.1%) is affected by severe to very severe water erosion and 144 ha (0.1%) is normal land.

Severe to very severe water erosion is prevalent in 16,179 ha (3.6%) area of which 7685 ha (1.7%) is in forest, 7925 ha (1.8%) is in open scrub and 12 ha is in plantation.

Major part of the district area amounting 4,31,447 ha (96.4%) is normal land, of which 1,93,410 ha (43.2%) is agriculture land, 1,04,305 ha. (23.3%) is forest land, 93,011 ha (20.8%) is plantation, 12,476 ha (2.8%) is open scrub and remaining 28,245 ha (6.3%) is under other lands i.e. habitation, water bodies, rivers, roads, rock out crops etc.