

INVENTORY OF DEGRADED LANDS OF BAGALKOT DISTRICT, KARNATAKA USING REMOTE SENSING TECHNIQUES

ABSTRACT

1. Details of survey
 - i) Kind of survey : Land degradation mapping
 - ii) Level of mapping : Reconnaissance
 - iii) Scale : 1:50,000

2. Period of survey : August 1997 to September 1997 & July 1999

3. Base material : IRS-IA LISS II False
Colour composite (April 1990)
Survey of India toposheets
On 1:50,000 scale

4. Details of area
 - i) Total area of the district : Bagalkot - 6, 58,877 ha.
 - ii) Agro-climatic zone : 10 – Southern plateau & hilly region
 - iii) Geographical extent : i) Bagalkot 15° 48' - 16° 46' N Latitude
74°59' – 76°20' E Longitude

5. Nature & extent of degraded lands in Bagalkot, Karnataka

Mapping symbol	Description	Area in ha.
We	Water erosion	
Wela1	Severe water erosion, plain, agriculture land (sheet, rill & few gullies)	35721
Wela2	Severe water erosion, plain, forest lands (sheet, rill & few gullies)	318
Wela4	Severe water erosion, plain, other lands including open scrub & pasture land	886
Wela4/1	Severe water erosion, undulating, other lands changed to agriculture lands	68
Welb1	Severe water erosion, undulating, agriculture lands	2666
Welb4	Severe water erosion, undulating, other lands	135
Welc1	Severe water erosion, rolling, agriculture lands	7636
Welc2	Severe water erosion, rolling, forest lands	31298
Welc4	Severe water erosion, rolling, others including open scrub	5292
Welc4/1	Severe water erosion, rolling, open scrub land changed to agriculture lands	48
Weld1	Severe water erosion, hilly, agriculture land	17
Weld2	Severe water erosion, hilly, forest lands	21963
Weld4	Severe water erosion, hilly, other lands	4192
Weld4/1	Severe water erosion, hilly, open scrub lands, changed to agriculture lands	50
	Total	110290
(We2)	Very severe water erosion	
We2a1	Very severe water erosion, plain, agriculture lands	181
We2b1	Very severe water erosion, undulating, agriculture lands	214
We2b2	Very severe water erosion, undulating, forest land	222
We2b4	Very severe water erosion, undulating, other lands	125
We2d1	Very severe water erosion, hilly, agriculture land	319
	Total	1061

Mapping Symbol	Description	Area in ha.
(WI)	Water logging	
WI1a1	Waterlogging seasonal, plain, agriculture lands	208
	Total	208
Sa	Salt affliction	
Sa1a1	Moderately saline sodic , plain, agriculture lands	11
Sa2a1	Strongly saline sodic, plain, agriculture lands	731
Sa2a4	Strongly saline sodic plain, other lands	72
	Total	814
Sw	Stony waste	
Sw1a2	Stony waste, plain, forest	791
Sw1a4	Stony waste, plain, other lands	1773
Sw1a4/1	Stony waste, plain, other lands changed to agriculture lands	141
Sw1b2	Stony waste, undulating, forest lands	455
Sw1b2/1	Stony waste. undulating, forest changed to agriculture lands	123
Sw1b4	Stony waste, undulating, other lands	294
Sw1b4/3	Stony waste, undulating, other lands changed to plantation	40
Sw1c2	Stony waste, rolling, forest lands	6161
Sw1c4	Stony waste, rolling, other lands	4590
Sw1d2	Stony waste, hilly, forest lands	2080
Sw1d4	Stony waste, hilly, other lands	786
	Total	17234
Rq	Rock quarry	
Rq1a1	Rock quarry, plain, agriculture lands	813
Rq1a4	Rock quarry, plain, other lands	124
Rq1b4	Rock quarry, undulating, other lands	218
Rq1d2	Rock quarry, hilly, forest	523
Rq1d4	Rock quarry, hilly, other lands	68
	Total	1746
Rw	Rock out crop /Rocky waste	
Rw1b4	Rock out crop/Rocky waste, undulating, other lands	676
Rw1c2	Rock out crop/Rocky waste, rolling, forest lands	215
Rw1c4	Rock out crop/rocky waste, rolling, other lands	96
Rw1d2	Rock out crop/rocky waste, hilly, forest lands	2591
Rw1d4	Rock out crop/rocky waste, hilly, other lands	214
	Total	3792
	Total degraded lands	135145
	Normal lands	
N1	Agricultural lands	489903
N2	Forest lands	9780
N2/1	Forest changed to agriculture	718
N3	Plantation	57
N3/1	Plantation changed to agriculture	78
N4	Other lands	4690
N4/1	Other land changed to agriculture	1313
	Total normal lands	506539
	Miscellaneous lands	
	Habitation	3160
	River	12393
	Tank	1640
	Total Miscellaneous lands	17193
	Grand Total/ Geographical area	658877