

Inventory of Soil Resources of Buxar District, Bihar Using Remote Sensing and GIS Techniques

ABSTRACT

1. **Survey Area** : Buxar district, Bihar
2. **Geographical Extent** : 83⁰ 46 ' 30 " to 84⁰ 23 ' 30 " E Longitudes and 25⁰ 16 ' to 25⁰ 44 ' 30 " N Latitudes
3. **Agro Climatic Region** : Middle Gangetic Plain (Zone no. 4 as per planning commission)
4. **Total area of the district** : 1,62,400 ha
5. **Kind of Survey** : Soil resources mapping using remote sensing techniques.
6. **Base map** : a) IRS – ID Geocoded Satellite Imagery (1: 50000 scale)
b) SOI –toposheet (1:50000 scale)
7. **Scale of Mapping** : 1 : 50000
8. **Period of Survey** : December,2007 to January,2008

9. Soil Series association mapped and their respective area

Sl. No.	Mapping Unit	Soil Association (Series level)	Area (ha)	Area (%)
1	ALb1a1	Dalsagar-Khirouli-Chanda	53321	32.83
2	ALb2a1	Dahiwar-Misrouli-Dumraon	41466	25.53
3	ALb2a2	Adapa-Barusa-Chanda	3414	2.1
4	ALb2b2	Daunpura-Dahiwar	13360	8.23
5	ALb3a1	Mathia-Baksara	2604	1.6
6	ALe3a1	Mirradera-Kachhimpur	3188	1.96
7	ALf2a1	Parari-Khirouli	1367	0.84
8	ALg3a1	Bhojpur-Baksara	5175	3.19
9	ALn3a1	Dahiwar-Niazipur	17450	10.75
10	RI	River	5023	3.09
11	S	Habitation	15460	9.52
12	WB	Water body	572	0.35
		Grand Total	162400	100