

Soil Resource of Sheohar District, Bihar

Abstract

1. **Surveyed Area** : Sheohar district, Bihar
2. **Location** : Latitude 26° 19' 35'' to 26° 39' 47'' N
Longitude 85° 10' 52'' to 85° 24' 18'' E
3. **Agroclimatic Region** : Middle Gangetic Plain
(Zone – IV as per planning commission)
4. **Total Area of the District** : 44235 ha
5. **Kind of Survey** : Soil Resource Mapping using Remote Sensing and GIS Techniques
6. **Base Map** : IRS-ID Geocoded Satellite Imagery (1:50,000 scale)
Survey of India Topographical maps on 1:50,000 scale
7. **Scale of Mapping** : 1:50,000
8. **Period of Survey** : January, 2015

9. Soil Series Association mapped and their respective area:

Sl. No.	Mapping Unit	Soil Series Association	Area(ha)	Area %
01	ALb1a1	Champapur-Jhajhara	3584	8.10
02	ALb1a2	Mathia Mohan-Karmoulia	1208	2.73
03	ALb1a3	Rasidpur-Khaira Pahari- Muradpur	6523	14.75
04	ALb1a4	Ashogi-Bhasanpatti	11656	26.35
05	ALb2a1	Sakrar-Parsaunikapur-Fatuha	1792	4.05
06	ALb2a2	Bajjnathpur-Bhagwanpur	10307	23.30
07	ALb2a3	Jabdi-Pakri	665	1.50
08	ALe2a1	Marar-Kolsum	1927	4.36
09	ALn1a1	Piprahi-Dhankaul Bandh	4524	10.23
10	Habitation		606	1.37
11	River/Waterbody		1443	3.26
		Grand Total	44235	100.00

10. Salient Features:

⇒ Physiographic division of the soils of the Sheohar district of Bihar:

Landscape	Physiography	Area (ha)	Area %
Alluvium	Alluvial Plain	35735	80.78
	Flood Plain	4524	10.23
	Levees	1927	4.36
Miscellaneous	Habitation	606	1.37
	River/Waterbody	1443	3.26
Total		44235	100.00

⇒ Soils of the district fall in three slope classes:

- Nearly level to Level sloping : 27495 ha (62.16 %)
- Nearly level to very gently sloping : 14691 ha (33.21%)
- Habitation : 606 ha (1.37%)
- River/Waterbody : 1443 ha (3.26%)

⇒ Various land use / land cover classes of the district are as under

- Agriculture : 42186 ha (95.37%)
- Habitation : 606 ha (1.37 %)
- River/Waterbody : 1443 ha (3.26%)

⇒ Erosion classes of the soils of the district are as under

- The soils comprising of 35070 ha (79.28 %) fall under non to slight erosion.
- The soils comprising of 7116 ha (16.09%) fall under slight to moderate erosion.
- Habitation 606 ha (1.37 %)
- River/Waterbody 1443 ha (3.26%)

⇒ Soils of the area are taxonomically classified into two orders i.e Inceptisols. and Entisols. All the 20 soils series identified in the area are further classified into 5 sub order, 5 great group, 8 sub group and 13 families.

HOW TO USE SOIL RESOURCE MAPPING REPORT

This report embodied the results of the Soil Resource Mapping of Sheohar district, Bihar providing information on the geographical setting of the district such as location, extent, physiography, relief, drainage, climate, geology, natural vegetation, agriculture, land use and soils.

The report contains other information on Interpretative grouping of soils (**Chapter 8**) such as land capability classes, land irrigability classes, soil suitability grouping and hydrological grouping and also recommendation for crops; horticulture development, forest, forage and grassland development; water harvesting, water storage and water management that are essential for soil and land resource management. The genesis and classification of the soils are also discussed in **Chapter 5**.

Sheohar district of Bihar is spread over an area of 44235 ha. The district is covered by 4 SOI topographical sheets on the scale of 1:50,000 which are used as base material along with satellite imageries.

Each soil mapping units is marked by mapping unit i.e ALb1a1 (Alluvium; alluvial plain; 0-1% slope; agriculture land use; soil series association describing Champapur as dominant series in association with Jhajhara series). Each soil association is restricted to a maximum of three soil series.

For the use of the soil resource report, first locate the area of interest on the map and note down the soil mapping units. Permanent features such as road, stream, lakes and village habitation etc. shown on the map, help to locate the area of interest on the map. For the detailed information on soil mapping unit in respect of soil series of the area of interest, its extent, present and proposed land uses and reference may be made to **Chapter 4, Appendix I and II**.

The mapping unit used in soil mapping represents the five levels of mapping i.e ALb1a1 may be referred as follows:

AL	-	Alluvium	-	Landscape
b	-	Alluvial plain	-	Physiography
1	-	0-1% slope	-	Slope Class
a	-	Agriculture land	-	Land Use
1	-	Association of soil series with erosion and management soil unit.		

Any comment and suggestion on the report would be welcome. For further enquiry or clarification, correspondence or personal contact may be established with either of the following address

The Chief Soil Survey Officer
Soil & Land Use Survey of India
I.A.R.I Buildings, New Delhi-110012
011-25871263, 25849486
Fax:- 011-25843811
Email:- csso-slusi@nic.in

The Soil Survey Officer
Soil & Land Use Survey of India
Plot. No. 32/456, B.A.U. Campus
or Kanke, Ranchi-8340006
0651-2450186
Fax-0651-2450145
Email:- ssoranchi-slusi@nic.in, soiljhr@nic.in

Website:- <http://slusi.dacnet.nic.in>

