

Inventory of Soil Resource of Bhagalpur District, Bihar State using Remote Sensing and GIS Technique.

Abstract

1. **Surveyed Area** : Bhagalpur district, Bihar

2. **Location** : a) Latitude 25° 04' to 25° 31' N.
b) Longitude 86° 39' to 87° 33' E.

3. **Agroclimatic Region** : Middle Gangetic Plain
(Zone – IV as per planning commission)

4. **Total Area of the District** : 2,55,822 ha.

5. **Kind of Survey** : Soil Resource Mapping using Remote Sensing and GIS Techniques

6. **Base Map** : A) IRS-IB Geocoded Satellite Imagery (1:50,000)
B) Survey of India Topographical maps on 1:50,000 scale.

7. **Scale of Mapping** : 1:50,000

8. **Period of Survey** : February, 2008 to June, 2008.

9. Soil Series Association mapped and their respective area:

| Sl. No | Mapping Unit | Soil Association | Area (ha) | Area (%) |
|---------------|---------------------|-----------------------------------|------------------|-----------------|
| 1. | ALb1a1 | Ghorghat-Kisanpur | 3092 | 1.2 |
| 2. | ALb1a2 | Khankita-Saidpur-Sarupchak | 35244 | 13.8 |
| 3. | ALb1a3 | Saidpur-Amadih-Fatehpur | 4592 | 1.8 |
| 4. | ALb2a1 | Murhan-Garsara-Banstikar | 4292 | 1.7 |
| 5. | ALb2a2 | Mamlakha-Makarpur | 17118 | 6.7 |
| 6. | ALb2a3 | Makarpur-Sarupchak-Berma | 45585 | 17.8 |
| 7. | ALb2b1 | Ghogha-Banstikar-Tetri | 4625 | 1.8 |
| 8. | ALg3a1 | Pannuchak-Balha | 810 | 0.3 |
| 9. | ALn1a1 | Mahatpur-Dadpur-Madhurapur | 9112 | 3.6 |
| 10. | ALn1a2 | Baisi-Dimha-Sonbarsa | 16614 | 6.5 |
| 11. | ALn2a1 | Pannuchak-Balha-Jagatpur | 44656 | 17.5 |
| 12. | ALn2a2 | Sadhapur-Malpur-Dimha | 14919 | 5.8 |
| 13. | ALn2a3 | Jagatpur-Murli-Rangra | 22819 | 8.9 |
| 14. | GGr5d1 | Jagaria-Kasri-Rakhatola | 218 | 0.1 |
| 15. | GGr7d1 | Shahkund-Janmohammadpur | 282 | 0.1 |
| 16. | GGx3a1 | Shibshankarpur-Pirauta-Ramjanipur | 633 | 0.3 |
| | H | Habitation | 5719 | 2.2 |
| | W | River and waterbody | 25492 | 10.0 |
| | | Grand Total | 255822 | 100.0 |