

SOIL RESOURCE MAPPING OF SIWAN DISTRICT, BIHAR

ABSTRACT

1. Survey area - Siwan district, Bihar.
2. Agro-Climatic Zone - Zone IV, the Middle Gangetic plain region (as per National Planning Commission).
3. Total area - 2, 21, 900 ha.
4. Period of field visit - December, 2007 to January, 2008 and May., 2008.
5. Type of survey - Reconnaissance Survey for Soil Resource Mapping using Remote Sensing Technique.

6. Extent of area under different mapping units and association of soil series mapped:-

Sl. No.	Mapping unit	Association of soil series	Area in ha.	Percentage
1.	ALb1a1	Saraya, Bhandapokhar, Mohadipur	59118	26.6
2.	ALb1a2	Babhnauli, Barkagaon	15987	7.2
3.	ALb1a3	Ageyan, Barkagaon	17745	8.0
4.	ALb2a1	Ramnagar, Siswa	31700	14.3
5.	ALb2a2	Saraya, Ramnagar, Jurkan	36235	16.3
6.	ALb2a3	Nautan, Puraina	6194	2.8
7.	ALb2a4	Munra, Jhunapur, Rasulpur	13987	6.3
8.	ALb2b1	Hilsar	1992	0.9
9.	ALc3a1	Gayaspur, Pachbenea, Trikalpur	7868	3.5
10.	ALg3a1	Mahadewa, Thepa	12984	5.9
11.	Miscellaneous		18090	8.2
Total			2,21,900	100.0

7. Salient features: -

i) Physiographic division of the soils of the Siwan district of Bihar: -

- > Alluvial plain – 182958 ha. (82.4%).
- > Stream bank - 12984 ha. (5.9%).
- > Levee - 7868 ha. (3.5%).
- > Miscellaneous – 18090 ha. (8.2%).

ii) Slope classes falling in the Siwan district: -

- Nearly level (0-1%) – 92850 ha. (41.8%).
- Nearly level to very gently sloping (0-3%) – 90108 ha. (40.6%).
- Very gently to gently sloping (1-5%) – 20852 ha. (9.4%).
- Miscellaneous – 18090 ha. (8.2%).

iii) Various land use / land cover classes of the Siwan district are as under: -

- Agriculture – 201818 ha. (90.9%).
- Plantation - 1992 ha. (0.9%).
- Miscellaneous – 18090 ha. (8.2%)
(waterbody, habitation, brick kiln etc.)

iv) Erosion classes of the soils of the Siwan district :-

- The soils comprising of 180966 ha. (81.5%) fall under non to slight erosion.
- The area of 9860 ha. (4.4%) represents slight to moderate erosion.
- The area of 12984 ha. (5.9%) accounts moderate to severe erosion.
- Miscellaneous 18090 ha. (8.2%).

v) Taxonomic classes of the soils of Siwan district: -

Soils of the area are taxonomically classified into two orders ie Entisols and Inceptisols. All the twenty soil series identified in the area are further classified into four sub-orders, five great groups, six sub-groups and eight families.