

Funding Agency : World Bank through U.P. Bhumi Sudhar Nigam.

Duration : 1999-2007 Study Area : 66 selected sites in 17 districts of U.P. namely Aligarh, Allahabad, Fatehpur, Hardoi, Sultanpur, Mainpuri, Etawah, Etah, Pratapgarh, Raebarely, Auriya, Kanpur, Unnao, Azamgarh, Bulandshahar, Jaunpur

Objectives :

- Sodiland Mapping on 1:50,000 scale in 17 districts using satellite data for selection of sites.
- Sodiland Mapping at cadastral level using satellite data in 21 districts.
- Environmental Studies
 - Soil quality monitoring
 - Ground water level monitoring.
 - Groundwater quality monitoring.
 - Surface water quality monitoring.
 - Monitoring selected wetlands in Etawah & Mainpuri
 - Study of salt & water movement using radio active tracer
- Study of change detection in sodiland area between 1998 and 2007 using Feb. 2007 satellite data on 1:50,000 scale.
- Project Durability Studies using satellite data, at plot level in 92 villages of 23 project units.
- Cross checking of water and soil samples received from U.P.B.S.N.

Salient achievements : A total of 3,32,177 ha. of sodic area mapped at cadastral level using satellite images in 3369 villages and provided to UPBSN. Maps showed the Khasra no. of plots having barren sodiclands (C sodiclands), single cropped sodiclands. (B) and double cropped sodiclands (B+). An area table and pH, EC and Gypsum requirement value of soil samples provided. 19122 soil samples collected from 292 selected farmers fields in 15 districts every year from 2000 to 2005 and analyzed for various parameters which indicate the improvement in soil quality in surface horizon. pH reduced by 0.5 to 1.0 unit and EC values came down significantly to normal range. Groundwater levels measured from 810 locations every year. 5290 observations taken in 17 districts in pre & post monsoon from 1999 to 2005. Results indicate decline in groundwater levels by 1 Groundwater quality studied from 1999 to 2005 every year in pre and post monsoon from 415 locations in 17 districts and analysis of 6144 samples showed no adverse impact of reclamation on quality. 942 Water samples analysed from surface drains, once in monsoon from 1999 to 2005 in 17 districts. Results showed no adverse impact of reclamation on surface water quality. Study of 94 villages representing 23 project units has shown 93% of plots selected by UPBSN for reclamation under crop using satellite data. Satellite data of 1998 & 2007 showed a reduction of 34% in sodiclands in the selected sites. Water logging reduced by 69% during the above period. 3749 soil samples and 5352 water samples of U.P.B.S.N. analysed for cross checking

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