



# ANNUAL REPORT

## 2015-2016



SOIL RESOURCE DEVELOPMENT INSTITUTE

MINISTRY OF AGRICULTURE

MRITTIKA BHABAN, FARMGATE, DHAKA-1215



Government of the People's Republic of Bangladesh

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**SOIL RESOURCE DEVELOPMENT INSTITUTE (SRDI)**

Ministry of Agriculture

Mrittika Bhaban

Farmgate, Dhaka

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## Executive Summary

During 2015-16 fiscal year Updated “Upazila Nirdeshika” survey was carried out at 30 Upazilas where remarkable changes in land use were observed in every Upazila and in some cases changes in land types were also found. It is observed that vegetables cultivation gaining popularity among the farmers. Thirty Upazila Nirdeshika was published.

Changes in soil fertility due to land use and management practices were observed in monitoring sites. In general soils are deficient in organic matter and nitrogen. Changes in Phosphorus, Potassium, Calcium, Magnesium, Manganese, Sulfur and Boron were erratic. There is also, evidence of lower pH value in many Upazilas.

In Khulna region soil salinity in shrimp cultivated area gradually increased from 1990s. This salinization may be due to the effect of saline water flooding for long period, water logging, presence of highly saline ground water at shallower depth almost throughout the year and lack of flashing facility after shrimp Culture. River water salinity of Satkhira district is higher than that of Khulna and Bagerhat district. In Satkhira, river water salinity was found highest in May/June whereas in Khulna and Bagerhat it was highest in April/May. Different river water salinity in greater Jessore district of 2016 has been decreased than that of 2015. River water remains saline during April-June as rainfall is low during this period. In Barisal both soil and water salinity was higher compared to previous year due to long droughty condition. During the dry season most of the DTW and STW water remains saline. Water salinity starts to increase in November-December attains its peak in March/April and then gradually decreases. A surface water salinity map was prepared by using monitoring data.

Some innovative technology for slopping hill soil management was generated by Soil Conservation and Watershed Management Centre (SCWMC), Meghla, Bandarban of which Bench Terrace for year round crop production, Gabion check dam for gully erosion control, Jute Geo-Textile for rehabilitating degraded land, Establishment of hedge rows in farmer’s field for soil erosion control are most important.

Some innovative technology for saline soil management was generated by Salinity Management and Research Centre (SMRC), Batiaghata, Khulna of which pitcher irrigation, double mulching and raised bed for vegetables cultivation was proved worthy. These techniques can be disseminated to other saline areas.

During 2015-16 Static Laboratories conducted soil analyses for both physical and chemical parameters, plant and water analyses for chemical parameters and fertilizer samples analyses under different programs. In Static Laboratories (Central and Regional Laboratories) total 22700 (18982 soil samples, 49 water samples, 35 plant samples and 3,634 fertilizer) samples were analyzed. Central Laboratory conducted two research programs namely *1. A Comparative Assessment of Soil Fertility in Birganj Upazilla of Dinajpur District and Hatibandha Upazilla of Lalmonirhat District. 2. Lime Requirements for Different Acidic Soils of Bangladesh and Its Consequence on Soil Calcium, Magnesium and Phosphorus.* Training were imparted to the officers and scientists of SRDI, BARI, BRRI and BINA on Chemical Analyses of Soil and Fertilizers, Identification of Adulterated Fertilizers at Field Level and Soil Sample Collection and Balanced Fertilizer Applications. Total 492 officers and staff have received 9540 hrs training in different subject in 2015-16 fiscal year