

Evaluation of Floral & Faunal diversity and Soil Microbial Biomass in Certain localities of Sodic Soils of U.P. at 5th year of Reclamation

Year of Starting:1998

Year of Completion: 2002

Funding Agency & Funds Received: World Bank, New Delhi through UPLDC

Objectives: To survey for status evaluation of floral, faunal diversity and microbial biomass in soil during 5th year of reclamation for 19 sodic land reclamation areas located in 10 different districts from 1998-99 to 2001-02, during 3 different seasons such as Rainy, Winter & Summer.

Study Area: Aligarh, Allahabad, Etah, Etawah, Fatehpur, Hardoi, Mainpuri, Pratapgarh, Raebareli and Sultanpur districts of U.P.

Salient Achievements: The study of biodiversity has been included in the sodic land reclamation project mainly to assess and periodically monitoring of the occurrence of biological system and invasion of colonizers under favorable conditions created through the process of reclamation of sodic lands. The study was carried out by NBRI, Lucknow in coordination with RSAC-UP to evaluate the status of biodiversity in terms of Frequency, Abundance, Density, Species Diversity Index, Species Richness Index, Importance value index and soil microbial carbon. FRED has contributed in coordination of the work related to this activity with NBRI,

It is clearly evident from the study that a significant change occurred in species richness and their population in accordance with the change in land use patterns. Microbial biomass of the soil samples collected from barren sodic land is 0year and 5th year crop field and normal crop fields, indicate maximum biological activity at Mainpuri and least at Aligarh. Microbial biomass carbon decreased with soil depth. There was about 4 to 5 times increase in Microbial biomass carbon content from 0 year at different site in surface stratum of 0-15cm in winter season while in summer season it was about 2 times.

Report No. : Annual reports were submitted every year.

Project Personnel: Dr. V. Rajamani from the division (FRED) was associated with this Project as Coordinator, Biodiversity.