

Ganga Rejuvenation through Forestation and Conservation Measures in Riverscape

Authors : Ombir Singh

Abstract : In spite of the religious and cultural pre-dominance of the river Ganga in the Indian ethos, fragmentation and degradation of the river continued down the ages. Recognizing the national concern on environmental degradation of the river and its basin, Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR), Government of India has initiated a number of pilot schemes for the rejuvenation of river Ganga under the 'Namami Gange' Programme. Considering the diversity, complexity, and intricacies of forest ecosystems and pivotal multiple functions performed by them and their inter-connectedness with highly dynamic river ecosystems, forestry interventions all along the river Ganga from its origin at Gaumukh, Uttarakhand to its mouth at Ganga Sagar, West Bengal has been planned by the ministry. For that Forest Research Institute (FRI) in collaboration with National Mission for Clean Ganga (NMCG) has prepared a Detailed Project Report (DPR) on Forestry Interventions for Ganga. The Institute has adopted an extensive consultative process at the national and state levels involving various stakeholders relevant in the context of river Ganga and employed a science-based methodology including use of remote sensing and GIS technologies for geo-spatial analysis, modeling and prioritization of sites for proposed forestation and conservation interventions. Four sets of field data formats were designed to obtain the field based information for forestry interventions, mainly plantations and conservation measures along the river course. In response, five stakeholder State Forest Departments had submitted more than 8,000 data sheets to the Institute. In order to analyze a voluminous field data received from five participating states, the Institute also developed a software to collate, analyze and generation of reports on proposed sites in Ganga basin. FRI has developed potential plantation and treatment models for the proposed forestry and other conservation measures in major three types of landscape components visualized in the Ganga riverscape. These are: (i) Natural, (ii) Agriculture, and (iii) Urban Landscapes. Suggested plantation models broadly varied for the Uttarakhand Himalayas and the Ganga Plains in five participating states. Besides extensive plantations in three type of landscapes within the riverscape, various conservation measures such as soil and water conservation, riparian wildlife management, wetland management, bioremediation and bio-filtration and supporting activities such as policy and law intervention, concurrent research, monitoring and evaluation, and mass awareness campaigns have been envisioned in the DPR. The DPR also incorporates the details of the implementation mechanism, budget provisioned for different components of the project besides allocation of budget state-wise to five implementing agencies, national partner organizations and the Nodal Ministry.

Keywords : conservation, Ganga, river, water, forestry interventions

Conference Title : ICHEE 2018 : International Conference on Hydrology, Ecology and Environment

Conference Location : Vancouver, Canada

Conference Dates : August 09-10, 2018