

NMCG AND WII INITIATIVE



BIODIVERSITY CONSERVATION AND GANGA REJUVENATION



The Government of India established the National Ganga River Basin Authority (NGRBA) with a view to address the issue of Ganga at the basin level so as to maintain its water quality, ecological flows, biodiversity value and sustained ecosystem services. Recently, through the Ministry of Water Resources, River Development and Ganga Rejuvenation, the NGRBA has initiated the National Mission for Clean Ganga (NMCG) with a comprehensive approach to address the challenges faced by Ganga River via four different sectors, namely, wastewater management, solid waste management, industrial pollution and river front development. It has developed a comprehensive strategy to restore the biodiversity value of the Ganga River. The proximate goal is to ensure that, by 2020, a significant reduction of threats to the biodiversity populations of Ganga River, either currently endangered or likely to become endangered in the foreseeable future, is achieved.



The project “Biodiversity conservation and Ganga Rejuvenation” forms the integral part of this conservation strategy. This project proposal aims to develop a science - based aquatic species restoration plan for Ganga River by involving multiple stakeholders. Following conservation actions have been proposed: (a) Creation of a coordinating institution - Ganga Aqualife Conservation Monitoring Centre at WII, Dehra Dun, for science based conservation planning and dissemination of information; (b) Prepare a biodiversity profile of Ganga River and develop pilot species restoration plans for select stretches and species; (c) Develop capacity of Forest Department and other stakeholders of the Ganga River States for regular monitoring of identified species of conservation significance (River dolphin, Crocodiles, Otter and Waterbirds); (d) Assist NMCG in establishing the rescue and rehabilitation centres for endangered fauna of the Ganga at select sites by developing human resources and infrastructure with support from the Forest and Veterinary departments; (e) Develop and implement strategies to involve the stakeholders particularly the river side communities for species restoration; and (f) Educate people through conservation awareness programmes relating to the aquatic biodiversity of Ganga River.

It is critical to develop capacity of different personnel of forest departments and local volunteers for successful generation of ecological baseline information that can be used for subsequent monitoring of Ganga River and its resources. The aim of this component is to build capacity of stakeholders where they can effectively contribute to the restoration and conservation of the biodiversity of Ganga River. The major objectives are to (i) Develop training material and learning resources (ii) Identify and create spearhead teams consisting of select forest staff and local youth and train them in different aspects of participatory biodiversity conservation and methodologies for survey of the indicator species, (iii) Develop capacity of Forest Officers of the Ganga River States and other stakeholders for monitoring of aquatic wildlife of conservation concern, management planning of wetlands, community involvement in conservation and conservation education,

01 ESTABLISHMENT OF GANGA AQUALIFE CONSERVATION MONITORING CENTRE

In its endeavour, the NMCG has identified the Wildlife Institute of India (WII), Dehra Dun, as a lead knowledge partner institution for aquatic species restoration in Ganga River. The NMCG and the WII have agreed to establish the Ganga Aqualife Conservation Monitoring Centre at the WII. The aim of this Centre is to promote science based restoration of aquatic wildlife in the Ganga River by involving the relevant stakeholders in the restoration process. The major objectives are: (i) Build up a scientific knowledge base on aquatic wildlife of Ganga River in accordance with the objectives of the NMCG through literature survey and field research, (ii) Disseminate the knowledge on Ganga to the general public and scientific community through print and electronic medium, (iii) Promote sustainable utilization of goods and services provided by the riverine ecosystem by developing stake of local communities in conservation efforts in consonance with the Indian cultural and socio-economic milieu, (iv) Develop national guidelines for considering the needs of the aquatic fauna in planning and execution of water development projects and promote these guidelines, and (v) develop the knowledge centre as a Centre of Excellence on aquatic wildlife and natural resource conservation.

In order to restore the ecological integrity of an aquatic ecosystem, it is vital to recover and restore its biodiversity. The aim of the programme is to derive the state of biodiversity in the Ganga River so that an effective restoration plan can be built upon. The major objectives are to (i) Derive the empirical relationships between river conditions and ecological status of the major species so as to determine the desired future state, (ii) Derive the current trend in genetic variability and gene flow of the critically endangered and endangered species that might have been disrupted due to fragmentation of the longitudinal connectivity of the river, (iii) Assess the concentration of key pollutants in species of conservation significance that may affect their long term survival, (iii) Map the areas of high species diversity in GIS domain where natural regeneration of wildlife population can be augmented, (iv) Identify indicator species/communities that could be used for monitoring the ecological health of the Ganga River and (v) Develop an aquatic species restoration plan and demonstrate species restoration in select stretches of Ganga River.

02 PLANNING AQUATIC SPECIES RESTORATION IN SELECT SITES



03 CAPACITY DEVELOPMENT OF FOREST DEPARTMENT AND OTHER STAKEHOLDERS



ESTABLISHMENT OF RESCUE AND REHABILITATION CENTRES

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In many places the wildlife of Ganga River in distress due to entanglement in fishing nets, poaching and accidentally venturing into unsuitable areas. The aim of this component is to put in place a system of rescue and rehabilitation programmes for aquatic species in distress. The major objectives are to (i) Establish rescue and rehabilitation centres at select sites, (ii) Enhance capacity of the forest department and field veterinarians in managing emergent situations and (iii) enhance the capacity of the local communities, including youth and fishermen for dealing with situation where animals need special attention.

The main aim of this component is to develop incentive based strategies, for local communities in order to mobilize them to participate in conservation of Ganga River and its biodiversity. The major objectives are: (i) Involve local communities in conservation of Ganga River through the Panchayati Raj System, (ii) Elicit the participation of stakeholders at different levels to achieve the biodiversity conservation goals of NMCG, (iii) Assess the monetary contribution of ecosystem services provided by Ganga River to different stakeholders, (iv) Develop site specific strategies for aligning local people's livelihoods with conservation priorities and (v) Suggest institutional mechanisms for the sustainability of project initiatives in the demonstration sites.

NATURE INTERPRETATION AND EDUCATION FOR BIODIVERSITY CONSERVATION

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The WII will establish interpretation centres at select sites and educate the local communities about the value of aquatic biodiversity of Ganga River. The major objectives of this component are to (i) Communicate with the community about the value of aquatic biodiversity and natural processes through the establishment of interpretation centres at select sites, (ii) Educate and involve the public in the Ganga River basin's natural systems by creating a network of community-based environmental education programmes and (iii) Foster public awareness of the river ecosystem, its conditions and resources.

COMMUNITY BASED CONSERVATION PROGRAMMES FOR SPECIES

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