

Empowering stakeholders for monitoring biodiversity in the Indian Himalayan region

It is necessary to properly use public funds towards development of the nation as well as reduce stress to local biodiversity and mitigate climate change issues. In this context, the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India (GoI) has formulated the National Mission on Himalayan Studies (NMHS) for sustenance and enhancement of the ecological, natural, cultural and socio-economic capital assets and values of the Indian Himalayan Region (IHR)¹ through involvement of different government agencies, private institutions and local non-governmental organizations to empower local stakeholders for monitoring biodiversity and *in situ* conservation of the Himalayan resources.

The Zoological Survey of India (ZSI) under MoEF&CC, GoI is not only a premier institution on taxonomy, but also endeavours conserving the faunal resources of India. Towards this, ZSI has started a project since April 2016 on biodiversity assessment through long-term monitoring plots in the Indian Himalayan landscape, sponsored by NMHS in collaboration with the Botanical Survey of India. The project was designed broadly to focus on evaluating the present status and trend of biodiversity in the IHR, and to understand the local stakeholders' needs for sustainable utilization of bioresources.

This was channelized through consultative capacity-building workshops that were organized in different parts of the IHR.

According to the objectives and target envisaged, participants from different sectors of the society, including scientists from various organizations, Government officials, frontline staff of Forest Department, civic authorities, students (undergraduate, postgraduate and research scholars) participated in these workshops to discuss the current status of biodiversity and provide suggestions on the potential for opening new avenues to involve stakeholders as well as their roles in conserving native biodiversity.

Capacity-building exercise conducted involved familiarizing stakeholders, most importantly, the frontline forest staff and students with the field-based knowledge and methods for monitoring forest resources. Several training manuals were developed and detailed presentations were made about biodiversity conservation strategies for the IHR. Moreover, several events like wildlife week celebration, talks on the current status of native diversity of floral and faunal groups and their conservation, effect on the ecosystem and addressing climate change in the IHR were also part of the capacity-building activities. Subject experts on the topics related to IHR biodiversity exerted

their views on the improvement in approach, raising the standards and better documentation and subsequent monitoring of bio-resources, creating a common platform for scientific research, better transparency and harmonizing efforts toward a better, ecologically significant habitat for future biodiversity. Efforts of governmental and non-governmental organizations along with research work from different universities were highlighted for interoperating bio-resource conservation, where local stakeholders and native people play a significant role exploiting alpha diversity through their traditional knowledge. As a foreseen measure, the government in close coordination with multi-stakeholders desires to monitor biodiversity of the IHR and formulate better conservation strategies for future generations.

1. Anon., VISION, <https://nmhs.org.in/mission.php>

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MEETING REPORT

Risk–Benefit Assessment for alien fishes*

A consultation was organized to discuss the issues of alien fish species and develop an appropriate model for their

*A report of the consultation on 'Invasive Alien Fish Species: Need for a Risk–Benefit Assessment and Management Framework for Healthy Freshwater Ecosystems' jointly organized by ICAR-National Bureau of Fish Genetic Resources, Lucknow and World Wide Fund for Nature-India (WWF-India), New Delhi and held at WWF-India, New Delhi on 19 December 2018.

risk–benefit assessment. It was aimed to bring together senior fishery experts and policy departments of the country. Besides senior fishery experts from India, the consultation was attended by representatives from international organizations like the Network of Aquaculture Centres in the Asia-Pacific (NACA), Bangkok and the South Asian Association for Regional Cooperation (SAARC); researchers from different fishery institutions across the country, Wildlife Institute of India, National Biodiversity

Authority, Marine Products Export Development Authority and representatives from the Department of Animal Husbandry, Dairy and Fisheries, Government of India; Chief Conservator of Forest, Chandigarh and a few universities.

The discussion was held with the objective to draft a framework to regulate the import of candidate species in view of their emerging demands and likely impacts. The assessment targeted matrix of biological, ecological and socio-economic attributes of the species in question. Such