Developing conservation plans for select Important Bird & Biodiversity Areas (IBAs) of the country



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SUMMARY

This project seeks to study bird diversity and its response to various ecosystem drivers including management in order to develop conservation plans for select IBAs in the country, which are a network of sites, exceptionally rich in birds and other taxa and hold significant populations of rare, endemic, and threatened species. In India, there are 554 IBAs out of which 506 sites have globally threatened species. Of these IBAs, 335 are managed and protected by state forest departments and 219 are not protected at all.

The following four IBAs were chosen under the project for this study: (1) Lowland Forests of South Sikkim, including Kitam WLS (IBA # IN-SK-07), (2) Maenam WLS, South Sikkim (IBA # IN-SK-08), (3) Barsey Rhododendron Sanctuary, West Sikkim (IBA # IN-SK-01), and (4) Jhilmil Jheel Conservation Reserve, Uttarakhand (IBA # IN-UT-15).

Data on bird distribution and population status, critical habitats, conservation issues, and socio-economic profiles of local communities dependent on IBAs for their livelihood were collected from all the IBA sites covering both summer and winter seasons. Supplementary information on past history of IBA management and governance, tourism, and volume of non-timber forest products, were collated from secondary sources. We also collected information on existing and potential threats to wildlife and their habitats from each site. An integrated analysis of all these parameters was undertaken to do biodiversity characterization of the IBAs with particular focus on threatened, endemic, and habitat-specialist birds of the sites and their habitat management.

In the Lowland Forests of South Sikkim (including Kitam Bird Sanctuary), a total of 161 species of birds (out of 223 species documented till date) were recorded in the study. Four vegetation types were identified as key bird habitats, viz., i) Sal-Teak Mixed Forests, ii) Sal-Chir Pine Mixed Forest and iii) Riverine Forest, and bird species diversity in each of these habitats was investigated with regard to environmental and management variables. Some of the major threats to the IBA include expansion of road and highway passing though the core forest, electrofishing in the Manpur stream inside the sanctuary, and predation of wildlife (like barking deer) by free-ranging dogs. We also make some recommendations for sustainable ecotourism in the IBA.

Of the 226 species of birds, documented from Maenam WLS till date, we recorded 103 species from this IBA, which is located at an altitudinal range of 2100-3300 m and remains an important watershed and catchment area for several rivers (esp. Teesta and Rangit) and streams in South Sikkim district. Bird and habitat sampling was conducted in the following three vegetation types: Dwarf Rhododendron Scrub, East Himalayan Moist Mixed Coniferous Forest, and East Himalayan Wet Temperate Forest. Maenam WLS, being located close to

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urban areas and surrounded by several villages, faces several threats. These include unregulated livestock grazing and fuelwood collection, hunting, encroachments by agricultural fields, increasing human-wildlife conflicts, recreation tourism, tourism infrastructure like Bhaley Dhunga-Yangyang ropeway, and natural calamities like landslides and soil erosion. A number of management prescriptions have been made particularly with regard to aligning tourism with biodiversity conservation and engaging local communities in the governance of the IBA mediated through sustainable use of forest resources.

The IBA that comprises Barsey Rhododendron WLS in West Sikkim district with 2100-4000 m altitudinal range, is the gateway to Mount Khangchendzonga, and is exceptionally rich in bird life of Eastern Himalayan biomes. A total of 273 species of birds have since been recorded from this IBA. Mixed Temperate Broadleaved Forest and Mixed Temperate Coniferous Forest harbour the maximum species diversity of birds, followed by subalpine and alpine scrub. Major threats to the IBA are livestock grazing and unregulated tourism along with its associated problems. Some urgent measures to alleviate these issues have been highlighted in the report.

Jhilmil Jheel CR (JJCR) in Uttarakhand is one among the first Conservation Reserves of India established in 2005. It is located in the Haridwar Forest Division along the Ganges River and is known for its tall wet alluvial grasslands, home to the westernmost population of Swamp Deer and several grassland specialist birds including Bristled Grassbird, Striated Grassbird, Yellow-bellied Prinia, and White-tailed Stonechat. Till date, a total of 374 species of birds have been documented from this IBA, out of which we recorded 170 species during our sampling. We investigated bird-habitat relationships in multiple land-cover classes in the IBA, including Eucalyptus Plantations, Mixed Moist Deciduous Forests, Riverine Forest, Grasslands, and Secondary Scrub. Eucalyptus and other plantations in Jhilmil Jheel have been a major management challenge in JJCR, and we recommend replacing the plantations in a gradual and phased manner with native alluvial grasslands and secondary Sal growth. We have also identified several other issues with this IBA: unregulated livestock grazing, human-wildlife conflicts, absence of a viable model of ecodevelopment so that local communities are fully engaged with the governance of the reserve, and recreation tourism. Jhilmil Jheel IBA has a huge potential for ecotourism as it is small in area, close to urban areas and is easily accessible. We have also highlighted the issue of increasing number of wildlife roadkills on the National Highway-72 that passes along the conservation reserve and have called for some urgent measures to reduce the conflicts. A questionnaire survey was also undertaken among the local communities to assess their resource dependency on JJCR for their livelihood and their perceptions on wildlife conservation in the reserve.





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