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VANISHING DIVERSITY

Global threats to flora and fauna

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FOREST FRAGMENTS AND VANISHING CANOPIES – THREATS AND CONSERVATION PATHWAYS FOR HORNBILLS IN THE TERAIR ARC OF UTTAR PRADESH

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ABSTRACT : The chapter titled Forest Fragments and Vanishing Canopies Threats and Conservation Pathways of Hornbills in the Terai Arc Landscape provides the ecological value of hornbills and the emerging threats and conservation solutions needed to maintain the population of hornbills in Terai Arc Landscape (TAL). It presents several human-related activities, such as deforestation, monoculture plantations, linear infrastructure, and agricultural development which have caused immense loss of the habitats of hornbills. Ecological backbone of the U.P. Terai is studied in terms of habitat properties, conservation lapses and management priorities of the eight safeguarded zones consisting of Dudhwa National Park, Kishanpur, Katarniaghat, Pilibhit, Sohagi Barwa, Suhelwa, Bakhira and Parvati Arga sanctuaries. The destruction of nesting holes, food shortages through the loss of fruiting trees and socio-economic reliance to the local communities are identified as essences of challenges. Some of the conservation pathways that have been proposed are through plantation, introduction of artificial nest boxes, enhancing the connectivity of the corridors, as well as promoting eco-tourism as a conservation incentive. Notably, the chapter focuses on the relevance of community involvement with Hornbill Festivals, school sensitivity programs, and local stewardship models based on effective programs on the same in Northeast India. The synthesis highlights the importance of the idea that the conservation of hornbills in the Terai should be participatory and landscape-based to incorporate ecology principles with policy models and culture involvement. Connecting biodiversity with the local livelihoods and education, the U.P. Terai can become one of the model regions in terms of balancing conservation and community-based sustainability.

Keywords: Hornbill Conservation, Terai Arc Landscape, Habitat Fragmentation, Community Participation, Forest Restoration

Introduction

The Ecological Significance of Hornbills

Hornbills (*Bucerotidae*), with their striking casques and wide wingspans, are among the most charismatic avifauna of Asian forests. Beyond their symbolic appeal, they are widely