

CHANGING WETLAND HABITAT IN KAZIRANGA NATIONAL PARK - A CASE STUDY

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Abstract

Recent over-exploitation of tree forests from the high altitude areas surrounding the Brahmaputra Valley has resulted in siltation in the natural wetland habitats in different parts of Assam. We initiated a reconnaissance survey in some wetland in Kaziranga National Park, Assam. Due to increased silt deposition in the wetlands of Kaziranga, some of the wetlands in the national park are slowly being converted towards the early stage of grassland. This change in habitat composition might lead to a total change in the faunal composition in Kaziranga. A detail wetland management plan in Kaziranga National Park seems urgently required.

Introduction

Due to recent over-exploitation of tree forests from the high altitude areas surrounding the Brahmaputra Valley, silting has been posing a major threat to the natural wetland habitats in different parts of the state of Assam. Effect of silting on the wetland habitat with special reference to waterbirds have been studied by Barman and Singha (1994). Kaziranga National Park (KNP) is situated in the alluvial flood plains of the river Brahmaputra (Champion and Seth, 1968) and renowned for *Rhinoceros unicornis* habitat, contains 14.29% wetland out of a total area of 430 sq km. (Islam, 1994). Wetland of KNP provides conducive habitat for a number of avian and mammalian fauna. Of the avian fauna, significantly high number of migratory birds use to frequent the wetlands of KNP from the Palearctic region (Talukdar, 1995). For this reason only, wetlands of KNP have tremendous impact on the habitat of both the resident and migratory avifauna. Flood of either high or low intensity is an annual phenomena of the KNP. Flood water brings huge quanta of silt which deposits in KNP. To observe the cumulative effect of silting on the wetland habitat due to annual flood in the KNP, a preliminary study was conducted during the month of December 1994, in the Kohora and Agaratoli range of the park.

Materials and Methods

Ground reconnaissance survey was made in a total of 6 beels with 3 beels in each range. These were Mihi, Benga and Goroimari beels in Kohora range and Sohola, Ahatguri and Kaladuar beels in Agaratoli range. Water depth of the beels were measured with a calibrated bamboo pole. Previous condition of the beels were recorded based on the informations gathered from the respective range officers and the forest guards through interviews. Movement/ activity of avian or mammalian fauna in and around the beels were observed using field binoculars during the study period.

Results and Discussion

At different places in Mihi and Sohola beel, the water depth varied from 1.5- 3.0 m. At Ahatguri and Kaladuar beel, the water depth varied from 0.75- 2.0 m., and 1.5- 3.25 m. respec-

tively. However, at Benga and Goroimari beel, the water depth was found to be 5- 8 cm only. Except the Benga and Goroimari beel, all other beels contained different aquatic weeds and planktons (Islam, 1994). Both these beels were entirely covered by dense growth of water hyacinth (*Eichhornia crassipes*). While occasional pond heron (*Ardeola grayii*), cattle egret (*Bubulcus ibis*), Lesser Adjutant stork (*Leptoptilos javanicus*), Open bill stork (*Anastomus oscitans*) and isolated herds of Asian Wild Buffalo (*Bubalus bubalis* Linn.) could be sighted at Benga and Goroimari beels, the number of avian and mammalian fauna sighted were comparatively more in the other four beels.

Information gathered from the forest officials revealed that, about 4-5 years ago, Benga and Goroimari beels were highly productive beels where almost all types of mammalian (Lahon and Sonowal, 1973) and avian fauna were frequented. From the present study it appears that, silt deposit at the Benga and Goroimari beels have been increasing and converting them towards the formation of grassland stage. It is assumed that, more silt deposits during the forthcoming floods may further degrade the condition of Benga and Goroimari beel including the other wetland habitats in KNP. This may also lead to a total change in the faunal composition in the KNP. A detail wetland management plan in KNP seems adire necessity.

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