Save Deepor Beel Now or Never

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Wetlands have a great role to play in preserving the earth’s fragile eco-system. The Deepor Beel (small lake) in Guwahati is recognized as one of the most important wetlands of India. There exists an intergovernmental treaty which came into force after signing of the International Convention on Wetlands, Ramsar, Iran, in 1971. Deepor Beel happens to be the only wetland in this part of the country to find a place in the list of 1712 wetlands that are designated as Ramsar sites. Home to a wide variety of flora and fauna, it is a paradise for a wide variety of birds and a refuge for a variety of endangered wild animals. It is also a major breeding ground for over 60 species of fish.

The writer, a technocrat and a social activist, dwells at length on the rich biological wealth of the Deepor Beel. He also sheds light on the natural and man-made challenges posed to its existence. The waste emanating from illegal settlements and industries cropping up around the wetland and the waste water that finds its way into the Beel from different parts of the city of Guwahati as well as encroachment are threatening to convert this vibrant Beel into a massive garbage dump. The newly constructed broadgauge line across the wetland is also causing damage to the fragile eco-system.

The writer’s comprehensive write-up has sent the alarm bells ringing. He says that it is high time for us to take steps to preserve this precious wetland, before it is too late. Clearing the Beel of encroachers, reducing pollutants, desiltation, controlled fishing and controlled activities in the Beel, can go a long way in preserving the wetland, feels the writer.

Author

Guwahati, the premier city of North-east situated on the bank of the mighty river Brahmaputra is also endowed with wonderful scenic beauty offered by a number of hills and beels located in and around the city. Amongst the beels, the most famous one is the Deepor Beel which is recognized as one of the most important wetlands of India. The beel is a permanent fresh water lake developed from an abandoned channel of the river Brahmaputra. It is the only Ramsar site in this part of the country. The International Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty which provides the framework of national action and international cooperation for the conservation and wise use of wetlands and their resources. There are presently 158 contracting parties to the convention, with 1712 wetland sites, totaling 153 million hectares, designated for inclusion in the Ramsar list of wetlands of international importance.

The Deepor Beel is included in the Directory of Asian Wetlands as a wetland type 14. The wetland is located between 90°36' 39” E and 91°1’25” E longitude and 26°05’ 26” N and 26 °9’26” N latitude to the south of the Brahmaputra river. It is an integral part of the
south-western low-lying area of Guwahati city. It lies at an altitude of 53 metres above MSL and covers about 4000 hectare water spread area. The main inlets of the beel are the Mara Bharalu and the Basistha-Bahini rivers which carry the sewage as well as storm water from Guwahati city. The only outlet of the beel is Khandajan located towards the North-east. It connects the beel with the river Brahmaputra.

**Flora and Fauna:** Deepor Beel provides a natural habitat to many varieties of birds, animals, aquatic flora and fauna. A paradise for birds – Deepor beel provides breeding and feeding grounds for millions of birds. About 219 species of birds including more than 70 migratory species have been recorded in the beel area. The wetland provides critical habitat for 17 globally threatened bird species including the critically endangered white-rumped vulture, long-billed vulture and Great Adjutant Stork. For all these reasons, Birdlife International has declared Deepor Beel an Important Bird Area (IBA) with high priority for conservation. The Government of Assam declared 414 ha of the beel as a bird sanctuary. A watch tower has also been erected on the bank of the beel connected with a metal road at a distance of 20 km from G.N.B. Airport and 9 km from Guwahati Inter-state Bus Terminus (ISBT).

The beel is a refuge for the endangered Asiatic Elephant, Leopard, Jungle Cat and the protected Barking Deer, Chinese Porcupine and Sambar. In olden days the beel was a popular elephant hunting ground. The famous elephant hunter and one of the great leaders of the freedom movement, barrister Tarun Ram Phukan used to frequent the beel and had written a series of popular adventure stories of elephant hunting. Big herds of elephants frequently visit the beel and spend long hours playing in the water. It is a most exciting and memorable experience to watch them play in the water.

The beel is a major breeding ground for over 60 species of fish, supplying stock to other nearby wetlands and rivers. Commercially valuable species such as snake heads, large cyprinids and large catfishes abound, as well as threatened lizards, snakes, turtles and amphibian species. Preliminary surveys have indicated the presence of 20 amphibian, 12 lizards, 18 snakes and 6 turtle and tortoise species.

Based on ecological adaptation, the hydrophytic vegetation of Deepor beel can be classified into seven categories with their floristic elements that are found to grow all over the beel both in and around the water body. During summer, large parts of the beel are covered by aquatic vegetation like water hyacinth, aquatic grasses, water lilies and other submerged, emergent and floating vegetation. The highland areas, which are completely dry during winter, are also covered by aquatic and semi-aquatic vegetation. During the winter, a variety of habitats such as deep open water area, marshy lands, mud flat, emergent vegetation, water hyacinth patches, net-grass land patches, paddy field areas, dry grassland areas and scattered forest areas, etc., support manifold habitats for migratory water-fowl, residential water-fowl and terrestrial avifauna. Phytoplankton is one of the major floral components with 18 genera and 21 genera of 200 planktons have been identified in the Deepor beel ecosystem.

**Major threat to Deepor beel:** Such an important wetland is now facing a number of challenges, both natural and manmade. Illegal settlements and industries cropping up around the wetland are exacerbating the waste and pollution problems of the beel. Deepor beel receives a fair amount of waste water from different parts of the city and the adjoining areas. The area under the beel is decreasing day by day due to encroachment and other human activities. Neglect and mismanagement threaten to convert a vibrant, productive ecosystem into a massive garbage dump. There are reasons to believe that the newly constructed broad-gauge line across the wetland is causing damage to the fragile
ecosystem. The rich bio-diversity of the beel has been on the declining line. Degradation of the water body has reached a critical state. Heavy deposits have already set in, resulting in reduction of water retention capacity and creation of dry surface areas, thus inviting other landuse.

**Deepor beel development plan and socio-economic considerations:** Wetlands are dynamic systems and being the store-house of biological wealth yield food, fodder, fuel, medicines, etc., and provide subsistence for people living in the surrounding vicinity. Wetlands also perform a number of vital functions in the surrounding environment in the form of controlling flood and soil erosion, water storage and purification, groundwater recharge and discharge, etc. This year, the February 2 World Wetlands Day theme is “Healthy wetlands; Healthy People” and aptly describes the intimate relationship between a wetland and its neighbouring people.

One thousand and two hundred families of 14 indigenous villages around Deepor beel depend directly or indirectly on the wetland’s natural resources for their livelihood. In addition to fishing, the major economic activity, other traditional activities like grazing, farming, gathering of various minor products generate some income to sustain their livelihood. Therefore plans for conservation and development of Deepor beel must include viable economic avenue for these villagers also. It is felt that development of eco-tourism shall create various economic opportunities for the local people. Other potentialities can also be explored. The development measures need – i) reduction of pollutants, ii) Desiltation and reduction in siltation process, iii) controlled fishing, iv) controlled activities in the beel, v) clearing the encroachers, vi) proper delineation, demarcation and fencing of the boundary and vii) boundary walls in critical areas.

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