

Nijhum Dweep 'busiest airport' of migratory birds

Bangladesh needs to join the Convention on Migratory Species (Bonn Convention) and implement the Global Migratory Birds Conservation Strategy and Action Programmes to save the flying wonders of the world.

DR. ANISUZZAMAN KHAN

NIJHUM Dweep is the national coastal biodiversity hotspot especially for the migratory birds in Bangladesh. The cluster of islets just off the central coast in Bay of Bengal is the crossroads of two global migratory flyways: the East-Asia-Australasia and the Central Asia.

This has been recognised by Birdlife International and Wetlands International. During the eighties, we, a group of wildlife biologists had led several expeditions and identified the ecological significance of the central coast in the Bay. We organised sky survey all along the coast using Sesna aircraft to identify the impor-

study was carried under the project titled III Forestry of Forest Department and supported by the World Bank.

After the Aerial survey, we did the ground 'truthing' covering the coastline from Sonadia to Kuakata. Later, we have conducted another detail study for the Forestry Resource Management Project (FRMP) of Forest Department/BCAS, supported by Asian Development Bank. The major recommendations of both the studies were to declare Nijhum dweep as RAMSAR site, Shorebird Reserve and establish Coastal Biodiversity Research Center there.

The study also identified other islands in the central coast which

As the National Coordinator of Asian Waterfowl Census (AWC) I had reported the occurrence of globally threatened waterbirds such as Spoon-billed Sandpiper, Asian Dowitcher, Nordman's Greenshank, Spotted Redshank, Goliath Heron and Indian Skimmers in good numbers in the Nijhum Dweep and had raised the international biodiversity significance of Nijhum Dweep at global forum by presenting our findings in several global biodiversity conferences held in Malaysia, Australia, UK, Germany, France and USA during the early eighties.

Birds migrate to this Bay fall under three different categories viz. early migrants, passage migrants and winter migrants. Early migrants use to come to our coast during October- November -- those who either stay here for a while and migrates further south or some of them stay throughout winter. The passage migrants visit our coast in large numbers and stay for a few days for 're-fueling' and move to their winter destination. And finally the winter migrants come to our coast and use the coastal mudflats



Forest department has introduced the spotted deer, rhesus macaque and python from the Sundarbans mangrove forest.

The channels around Nijhum Dweep are very much rich in macro-benthos and other invertebrates. Among them crustaceans, nematodes and helminthes are dominant. Intertidal creeks are full of different types of algae which are used by the ducks in large quantities. The clusters of islets and its surroundings comprise various types of habitats. Important among them are: network of intertidal creeks inside mangroves, massive mudflats, grassland, reed land, sand flats, sand beaches, sand dunes and dipper channels. Nijhum Dweep is rich in fish fauna specially crustaceans and other estuarine fish populations. We have recorded existence of the globally threatened turtles, the Batagur, and Green turtles from the beach of Nijhum Dweep. The channels around Nijhum dweep are good abode of Ganges Dolphin, Indo-Pacific Humpback, Finless Porpoise and Irrawaddy Dolphin. Several kilometers of intertidal sand flats at the south of Nijhum Dweep is the most important staging ground of 10,000 to 20,000 migratory birds.

Based on our Asian Waterfowl Census, we have discovered various species of waterbirds, their flight path and habitat preference in Bangladesh. Nijhum dweep and its

adjacent areas support a large number of migratory waterbirds which range from 30,000 to 50,000 in number belonging to 95 species. Average arrivals and main species compositions are: Gulls and Terns 10,000-20,000; Ducks and Geese 7,000-10,000; Egrets and Herons 5,000-7,000; Indian Skimmer 2000-3000; Black-headed Ibis 500-1,000; Black-tailed Godwit 3,000-5,000; Pied Avocet 100-200; Greater Sand plover 1,000-2,000; Lesser Sand plover 3,000-5,000; Kentish Plover; 500-1,000; Little Stint 1,000-2,000; Curlew Sandpiper 500-1,000; Asian Dowitcher 30-50; Nordman's Greenshank 10-20; Spotted Red Shank; 5-15; Spoon-billed Sandpiper 20-300; Goliath Heron 1-4; Redshank 2,000-3,000 and Greenshank 1,000-1,500.

Char Bahauddin close to Nijhum Dweep is the safe haven for breeding birds like Indian River tern, Common tern and Great Thick Knee.

Threats to migratory waterbirds and their habitats include:

- Loss of habitat through reclamation of wetlands
- Loss of habitat due to intensifying agriculture
- Degradation of habitat through pollution
- Reduction or diversion of water supply
- Increase in disturbance by humans
- Invasive plants and predators
- Climate change

Change in land-use planning and land grabbing are two major threats to the biota of Nijhum Dweep. Mangrove plantation in and around the islets has been reducing the mudflats. Overfishing in the channel and buffalo grazing in the mudflats are also posing threat to the habitat of migratory birds in the region.

Waterbirds are a diverse group of wetland dependent bird species. They are extremely important both from a conservation and recreational point of view. Most of these species have adapted to the drastically changing conditions of wetlands through their migratory behaviour.

Many waterbirds complete annual migrations flying several thousand kilometers between their breeding and non-breeding areas, passing many national borders and even that between continents. These migration routes are called

flyways. Waterbird conservation and sustainable management requires coordinated actions throughout the length of a flyway.

A flyway is the entire range through which a migratory bird species (or groups of related species or distinct populations of a single species) move on an annual basis from the breeding grounds to non-breeding areas, including intermediate resting and feeding places.

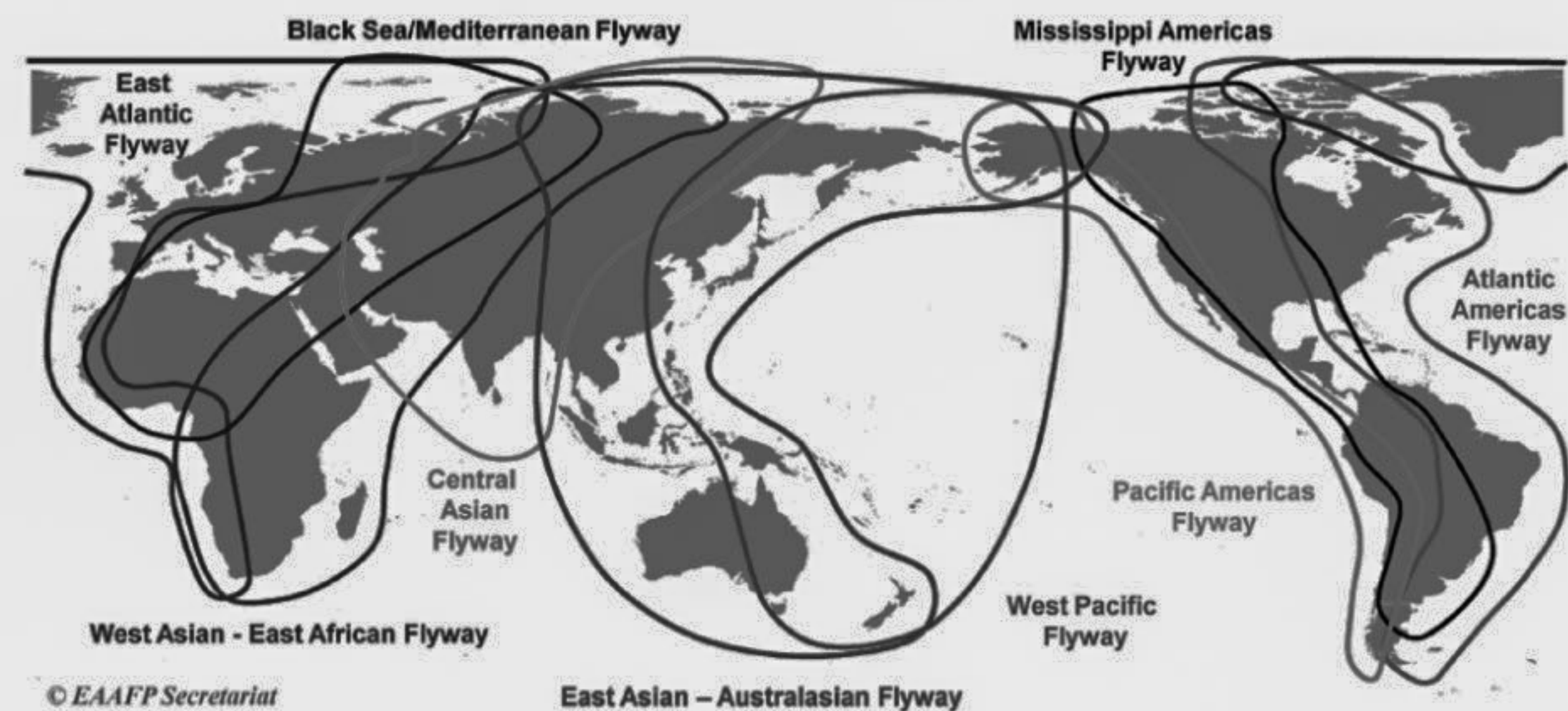
The East Asia-Australasian Flyway (the Flyway) is one of the nine major migratory waterbird flyways around the globe. It extends from within the Arctic Circle in Russia and Alaska, southwards through East and South-east Asia, to Australia and New Zealand in the south, encompassing 22 countries. Migratory waterbirds share this flyway with 45% of the world's human population.

The Central Asian Flyways (CAF) covers large continental area of Eurasia between the Arctic Ocean and its associated islands. CAF comprises several important migration routes of water birds, most of which extend from the northernmost breeding grounds in Siberia to the southernmost non-breeding wintering grounds in west Asia, South Asia, the Maldives and Indian Ocean islands.

The Flyway is home to over 50 million migratory waterbirds -- including shorebirds, Anatidae (ducks, geese and swans) and cranes from over 250 different populations, including 28 globally threatened species. There are currently 700 sites recognised as internationally important to migratory waterbirds along the flyway, many of which are located adjacent to human settlement and vulnerable to rapid social and economic development pressures. Without international cooperation to address these threats, many waterbird species will face extinction in the near future.

Bangladesh needs to join the Convention on Migratory Species (Bonn Convention) and implement the Global Migratory Birds Conservation Strategy and Action Programmes to save the flying wonders of the world. Nijhum Dweep could be a bright star of Bay of Bengal Biodiversity if proper conservation measures are taken through establishing a shorebird reserve.

The writer is a biodiversity scientist.



tant spot for migratory birds and their resting, feeding and roosting sites. Dr. Derek Scot from International Waterfowl and Wetlands Research Bureau (IWRB), UK; Mr. Mark Barter, Australasia Wader Studies Group, Australia; Mr. Abdul Wahab Akonda, of Forest Department, Dr. SMA Rashid of NACOM; Dr. John Howes, Mr. David Bakewell and Ms. Susan Wang of AWB joined us in the team. The

act as the important stepping stones and staging grounds of nearly 50 species of waterbirds. The distribution, abundance and their ecological significance were also assessed. The sites which have global significance are: Urir Char- Hatiya Coast; Monpura- Kukrimukri Coast; Char Montaj- Kuakata Coast and Sundarban's Coast. All these sites were proposed as seasonal shorebird reserves.

as their feeding ground and roam there entire winter season.

Nijhum Dweep down off Hatiya island in the bay is a cluster of islets having enormous coastal biomass productivity. At its centre the raised land is the old growth of planted mangroves forest. The man-made mangrove re-colonised various wildlife including, jackal, otter, mongoose, rats, fishing cats, bats, monitor lizards, snakes and birds.

CHECKING AIR POLLUTION

Enforcement of rules imperative

The CAMS initiative is in progress at a time when Bangladesh ranked 131st among 132 countries in controlling air pollution.

PROBIR KUMAR SARKER

IN its latest move against air pollution, the government is setting up six air-quality monitoring centres at different places of the country including Dhaka to better identify the extent of toxicity-- the key reason behind respiratory illnesses and chronic bronchitis.

Officials at the Continuous Air Monitoring Stations (CAMS) equipped with advanced machinery will collect and analyse data on pollution taking place in the areas while will also suggest the authorities concerned possible measures to contain its adverse effects.

The initiative is being implemented under the Clean Air and Sustainable Environment (CASE) project of the Department of Environment (DoE) in Dhaka, Gazipur, Narayanganj, Chittagong, Sylhet and Barisal.

The stations may come into operation within two to three months, according to the project officials.

Of the existing five such stations across the country -- two in Dhaka and one each in Chittagong, Rajshahi and Khulna -- two are out of order. These run-down stations, one in Dhaka and the other in Khulna, would either be replaced or repaired.

These were installed between 2002 and 2006 under Air Quality Management Project (AQMP), which was in effect before the CASE project.

The CAMS initiative is in progress at a time when Bangladesh ranked 131st among 132 countries in controlling air pollution with regard to its effect on human health, according to 2012 Environmental Performance Index (EPI). India holds the very last position in controlling air pollution.

Air pollution, having a strong negative impact on health, is the major cause of erosion of human

productivity and even death, particularly among children and pregnant women of the urban areas and those of the poor and marginalised communities.

A recent study of the CASE project finds the huge number of vehicles -- most of which are unfit and run by diesel, brick kilns and industries emitting hazardous toxic gases behind the critical status of air pollution in the country.

People around the places where construction of buildings and roads are taking place are highly affected by the dust in the air.

The extent of air pollution is highest in capital Dhaka while Chittagong, Cox's Bazar and Rajshahi are also facing contamination which is increasing. The air is polluted by the excess amount of carbon monoxide, sulphur dioxide, nitrogen dioxide and hydrocarbon, which are responsible for health hazards.

A joint project of the government with the World Bank found that some 15,000 people face premature death due to the fall in air quality when several millions undergo pulmonary, respiratory and neurological illnesses.

Living standards in Dhaka has been said to be deteriorating gradually with unplanned urbanisation, lack of utilities and burden of over-population.

Dhaka in several other recent surveys too ranked among the least liveable cities in the world in terms of environment, standard of infrastructure and other civic facilities.

The CASE study of mid 2011 finds that Dhaka is bearing a huge burden of old fleet of diesel-run buses and trucks using high sulphur fuel and adulterated lubricants.

After the introduction of CNG as fuel and phasing out of two-stroke vehicles in 2003 from Dhaka, the situation improved; but the air pollu-

tion level started to move upward with the increasing number of vehicles, improper traffic and parking management system and irregular maintenance of vehicles.

Most of the light vehicles in Dhaka and Chittagong run on CNG while the local vehicles in Cox's Bazar and Rajshahi use petrol or diesel. In all these places, air pollution level is high due to the fuel oil-run buses, trucks and those old and unfit motorbikes mainly seen in Rajshahi.

To address the immense vehicular pollution, the DoE's magistrates and those of the BRTA, the transport authority, carry out mobile courts across the country, such operations against the polluters is not regular though.

Besides penalising owners of vehicles, the DoE also fines the owners of brickfields where emission of heavy smoke is seen due to violation institutional, legal and regulatory framework for brick manufacturing.

Many of over 1,100 brickfields across the country are still using woods to burn bricks while some using coal.

The DoE is now working on the issue to promote adoption of cleaner technologies. The CASE project supports a whole range of activities including introduction of energy-efficient brick making technologies and also demonstrating the viability of alternative building materials.

Considering the current status of air pollution in the country, the DoE focuses mainly on vehicular pollution. The CASE project, meanwhile, recommends that the old diesel-driven vehicles are phased out immediately; carrying out testing or checking of vehicles in the major cities and awareness campaigns on vehicular emission, and maintenance.

The writer is a journalist.



Unworthy vehicle emitting black smoke

Spoonbill Sandpiper: Critically endangered



SPONBILL Sandpiper is an attractive little bird with a distinctive spoon-shaped bill, this sandpiper has winter plumage as pretty as its breeding colours. Non-breeding adults have pale brown-grey upperparts, with a white trim around each feather. The underparts are white and lack the colours seen in breeding adults, which have a russet red head, neck and breast streaked with brown, and dark upperparts with pale brown and red edging to the feathers. It calls quietly with a 'preep' and a

'wheet'.

This charismatic species is listed as Critically Endangered (RDB-IUCN/BLI) because it has an extremely small population which is undergoing an extremely rapid population reduction. This is because of a number of factors, including habitat loss in its breeding, passage and wintering grounds, which is compounded by disturbance, hunting and the effects of climate change. Fledging success and juvenile recruitment are very low, leading to fears that the population is ageing rapidly; action is now urgently required to prevent the extinction of this species. surveys on the breeding grounds of Spoon-billed Sandpiper Eurynorhynchus pygmeus show that the species has declined extremely rapidly from an estimated 2,000,280 pairs in the 1970s to perhaps fewer than 100 pairs in 2007.

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