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# Index

Assam's Deepar Beel Wildlife Sanctuary breathes easy after eco-sensitive zone notification.....	2
India adds 557 new species to its fauna: Zoological Survey of India.....	4
Why are hydropower projects in the Himalayas risky?.....	6
A fine line: The Hindu Editorial on development and conservation.....	8

# ASSAM'S DEEPAR BEEL WILDLIFE SANCTUARY BREATHES EASY AFTER ECO-SENSITIVE ZONE NOTIFICATION

Relevant for: Environment | Topic: Biodiversity, Ecology, and Wildlife Related Issues

A view of the railway track that passes through the wildlife sanctuary in Assam. File | Photo Credit: [The Hindu](#)

On August 25, the Ministry of Environment, Forest and Climate Change notified the eco-sensitive zone of the [Deepar Beel Wildlife Sanctuary](#) on the south-western edge of Guwahati.

Deepar Beel is one of the largest freshwater lakes in Assam and the State's only [Ramsar site](#) besides being an Important Bird Area. The wetland has for decades been threatened by a railway track — set to be doubled and electrified — on its southern rim, a garbage dump, and encroachment from human habitation and commercial units.

The notification specified an area “to an extent varying from 294 metres to 16.32 km” as the eco-sensitive zone, with the total area being 148.9767 sq. km.

But being adjacent to “fast-developing Guwahati”, the sanctuary is “facing immense biotic pressure by way of human settlements and ever-increasing development activities”, the notification said.

The wetland expands up to 30 sq. km in summer and reduces to about 10 sq. km in the winter. The wildlife sanctuary measures 4.1 sq. km within this wetland.

Romila Boro, a sexagenarian resident of Chakardeo, the sanctuary's “guardian village”, hopes the notification will bail the constricted wetland out. But she is sad that the “good news” has come eight years too late. It was in 2014 that her husband Koliya Boro was run over by a speeding train while trying to stop from hitting an approaching herd of elephants. He was one of the earliest conservationists of the area.

“The zonation should help, but Deepar Beel's water has become toxic and it has lost many of its aquatic plants that elephants would feed on. The wetland can breathe easier only if the railway track is diverted,” said Chakardeo dairy farmer and green guard Pramod Kalita.

“No new commercial hotels and resorts shall be permitted within 1 km of the boundary of the protected area or up to the extent of the eco-sensitive zone, whichever is nearer, except for small temporary structures for eco-tourism activities,” the notification said.

Disallowing new sawmills or the expansion of existing sawmills in the vicinity, the notification said a new wood-based industry may be set up in the eco-sensitive zone using 100% imported wood stock.

Among activities prohibited in the eco-sensitive zone are hydroelectric projects, brick kilns, commercial use of firewood and discharge of untreated effluents in natural water bodies or land areas.

Deepar Beel has long been used as a sponge for Guwahati's sewage via a couple of streams. The wetland has also suffered from seepage of toxins from a garbage dump at Boragaon

adjoining it.

“The wetland of Deepar Beel constitutes a unique habitat for aquatic flora and avian fauna. About 150 species of birds have been recorded in the sanctuary, out of which two are critically endangered, one endangered, five vulnerable and four near-threatened,” the notification said.

“Elephants regularly visit the wetland from adjoining Rani and Garhbhanda Reserve Forest and the wetland is an integral part of the elephant habitat. Besides these, 12 species of reptiles, 50 species of fish, six species of amphibians along with 155 species of aquatic macro-biota have been recorded in the sanctuary,” it said.

“City wastes as well as industrial effluents causing serious problem to the ecological and environmental values of the rich wetland that create a threat to all life forms and ecosystems in the Deepar Beel,” it added, also noting the railway track along the wetland’s southern boundary with concern.

Wildlife specialist Bibhab Talukdar said if the implementation of the rules is weak, it does not really matter if the eco-sensitive zone extends 10 km or 10 metres beyond a protected area.

“Deepar Beel needs the unabated movement of wild elephants and birds and it should be a smart model of the balance between developmental projects and maintaining the ecological processes of a wetland that is essential for human wellbeing,” he said.

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The report said, the world will cross the 1.5° C warming mark in the 2030s, earlier than past predictions.

**END**

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## INDIA ADDS 557 NEW SPECIES TO ITS FAUNA: ZOOLOGICAL SURVEY OF INDIA

Relevant for: Environment | Topic: Biotechnology, Genetics & Health related developments

A new species of Green Pit Viper discovered in Arunachal Pradesh. Photo: Special Arrangement

India has added 557 new species to its fauna, which includes 407 new species and 150 new records, reveals *Animal Discoveries 2020*, a document published recently by the Zoological Survey of India (ZSI). The number of faunal species in India has climbed to 1,02,718 species.

Among the new species, some interesting species discovered in 2020 are *Trimeresurus salazar*, a new species of green pit viper discovered from Arunachal Pradesh; *Lycodon deccanensis*, the Deccan wolf snake discovered from Karnataka; and *Sphaerotheca Bengaluru*, a new species of burrowing frog named after the city of Bengaluru. The list also includes *Xyrias anjaalai*, a new deep water species of snake eel from Kerala; *Glyptothorax giudikyensis*, a new species of catfish from Manipur; and *Clyster galateansis*, a new species of scarab beetles from the Great Nicobar Biosphere.

Among the new records, *Myotis cf. frater*, a bat species earlier known from China, Taiwan and Russia, has been reported for the first time from Uttarakhand in India; and *Zoothera citrina gibsonhilli*, an orange-headed thrush earlier known from southern Myanmar to south Thailand (central Malay peninsula), which was reported for the first time from India based on a collection made from the Narcondam island in the Andaman & Nicobar Islands.

Of these 557 species, invertebrates constitute the majority with 486 species, while 71 species belong to vertebrates. Among invertebrates, insects dominated, with 344 species, whereas pisces and reptiles dominated among vertebrates.

Among the States, the highest number of new species were discovered from Karnataka (66 species), followed by Kerala (51 species). Also in 2020, 46 new species were discovered from Rajasthan and 30 from West Bengal.

In terms of new records or species recorded in the country for the first time, Arunachal Pradesh had the highest (20 new records). In the Andaman & Nicobar Islands, 25 new species were discovered and 16 new records documented in 2020.

Of the 557 new species discovered, scientists and researchers from the ZSI contributed 121 new species and 86 new records in 2020.

Data analysis of the 2010-2020 decade reveals that a total of 4,112 species — 2,800 new species and 1,312 new records — were added to Indian fauna. It's also interesting that scientists of the ZSI contributed to 34% (948 species) of the newly described and 68% (898) of the newly recorded species in the last 10 years. The ZSI, which was set up by British zoologist Thomas Nelson Annandale, in 1916, has been publishing *Animal Discoveries* since 2007.

Commenting on the publication, Dhriti Banerjee, Director, Zoological Survey of India, said that the discovery and description of a species is a long-drawn process and can take years, from the collection of a specimen to identifying and matching the specimen with other records in repositories, and finally publishing the details in a journal.

Dr. Banerjee pointed out that 2020 has been tough year for scientists due to the COVID-19 pandemic as they could not survey protected areas, where a greater diversity of fauna exists. Dr. Banerjee said that with the encouragement of the Ministry of Environment Forest and Climate Change, the ZSI will in the years to come add new species and new records to India's faunal repository.

The ZSI publication shows that India is a mega biodiverse country, rich in biodiversity, with 23.39% of its geographical area under forest and tree cover. "India is positioned 8th in mega biodiversity countries in the world with 0.46 BioD index which is calculated by its percentage of species in each group relative to the total global number of species in each group," the document adds.

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The report said, the world will cross the 1.5° C warming mark in the 2030s, earlier than past predictions.

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# WHY ARE HYDROPOWER PROJECTS IN THE HIMALAYAS RISKY?

Relevant for: Environment | Topic: Environmental Degradation - GHGs, Ozone Depletion and Climate Change

Site of tragedy: The Tapovan project, which was ravaged by floods in February 2021. V.V. Krishnan

**The story so far:** The Environment Ministry, in an affidavit placed in the Supreme Court earlier this month, has disclosed that it has permitted seven hydroelectric power projects, which are reportedly in advanced stages of construction, to go ahead. One of them is the 512 MW Tapovan Vishnugadh project, in Joshimath, Uttarakhand that was damaged by a flood in February.

## What's the history of hydel projects in the Himalayas?

In the aftermath of the Kedarnath floods of 2013 that killed at least 5,000 people, the Supreme Court had halted the development of hydroelectric projects in Uttarakhand pending a review by the Environment Ministry on the role such projects had played in amplifying the disaster. A 17-member expert committee, led by environmentalist Ravi Chopra, was set up by the Ministry to examine the role of 24 such proposed hydroelectric projects in the Alaknanda and Bhagirathi basin, which has the Ganga and several tributaries. The Chopra committee concluded that 23 projects would have an “irreversible impact” on the ecology of the region. Following this, six private project developers, whose projects were among those recommended to be axed, impleaded themselves in the case on the ground that since their projects had already been cleared for construction before the Kedarnath tragedy, they should be allowed to continue.

The SC directed a new committee to be set up to examine their case. This committee, led by Vinod Tare of the Indian Institute of Technology, Kanpur, concluded that these projects could have a significant environmental impact.

The Environment Ministry in 2015 set up yet another committee, led by B.P. Das, who was part of the original committee, but had filed a “dissenting report”. The Das committee recommended all six projects with design modifications to some.

The Water Resources Ministry, then led by Minister Uma Bharti, has been consistently opposed to hydropower projects in the Ganga. In charge of the National Mission for Clean Ganga, the Water Ministry has maintained that the cleanliness of the river was premised on minimum levels of water flow in all seasons and the proposed projects could hinder this. By 2019, however, the renamed Jal Shakti Ministry had changed its stance to accommodate seven out of the 24 projects. Its current position is that barring these, it is “not in favour” of new projects in the Ganga river basin.

Though hearings in the Supreme Court are ongoing, this is the first time that the government has a formal uniform position on hydropower projects in the Uttarakhand region.

## What are the challenges such projects face?

Following the break in the Raunthi glacier that triggered floods in the Rishiganga river in Uttarakhand on February 7, which washed away at least two hydroelectric power projects — the 13.2 MW Rishiganga hydroelectric power project and the Tapovan project, environmental

experts have attributed the glacial melt to global warming. Glacier retreat and permafrost thaw are projected to decrease the stability of mountain slopes and increase the number and area of glacier lakes. Moreover, with increased instances of cloudbursts, and intense spells of rainfall and avalanches, residents of the region were also placed at increased risk of loss of lives and livelihood.

### **How can these conflicts be resolved?**

The challenges facing development in the Himalayan region are multi-faceted. The Uttarakhand government has said that it's paying over Rs. 1,000 crore annually to purchase electricity and therefore, the more such projects are cancelled, the harder for them to meet their development obligations. Several environmentalists and residents of the region say that the proposed projects being built by private companies allot only a limited percentage of their produced power for the State of Uttarakhand itself. Thus the State, on its own, takes on massive environmental risk without being adequately compensated for it or its unique challenges accounted for. Though the Centre is committed to hydropower projects because it's a renewable source of power, the ecological damage combined with the reduced cost of solar power means that it has in recent times said that it is not in favour of greenfield hydropower projects in the region. But several environmental activists say that the Centre will continue to prioritise infrastructural development in the region, even if it comes at a heavy environmental cost.

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## A FINE LINE: THE HINDU EDITORIAL ON DEVELOPMENT AND CONSERVATION

Relevant for: Environment | Topic: Environmental Conservation, Sustainable Development, and EIA

The need for [infrastructure development in the Himalayan region](#) rubs up against the environmental and ecological challenges that they pose. The Uttarakhand government has for decades envisaged hydroelectric projects as the way forward to power the State, premised on the region's undulating topography. However, the rising frequency of intense rains has been contributing to landslips, avalanches, and the loss of lives and property. All of this has a bearing on hydroelectric projects being situated in terrain prone to environmental shocks. In the aftermath of the devastating [Kedarnath floods of 2013](#), the Supreme Court ordered a halt to hydroprojects in the Alaknanda and Bhagirathi river basins pending a review on whether they exacerbated the damage. The last few years have seen considerable friction on this issue, especially because the future of hydroprojects is closely linked to the National Mission for Clean Ganga (NMCG) programme. For the health of the river, it must be allowed to flow unimpeded, and [hydropower projects are an obstacle](#). A committee of experts recommended to the Court that almost all hydropower projects, cleared by the Government for construction, be scrapped. Proponents of six of these projects approached the Court on the grounds that they had obtained prior clearances and scrapping projects would entail significant losses. Since then, the Centre has been trying to walk a fine line between salvaging some of them while acknowledging, at least on paper, the environmental costs.

There have been divisions even within various Central ministries: the Water Resources Ministry, which manages the NMCG, is opposed to hydropower projects while the Ministry of Power roots for them. Through the years, whenever a group of experts has recommended a cessation of infrastructure development, there is always another group of experts, usually affiliated to government institutions, that differ and recommend the opposite. The avalanche in Chamoli this February, that destroyed two power projects and killed at least 200, was only the latest reminder of the fraught risks that committees and their tussles inadequately account for. The Centre has been saying that it is not too keen on new hydropower projects and is only permitting those that are at least 50% complete to go ahead given the sunk costs. While such statements have been made in Parliament, they do not appear in the latest affidavit to the Court; so there are concerns on whether this is indeed a lasting policy commitment. Uttarakhand, like all other States, is not immune from the demands for reliable power and infrastructure from its people. Along with better dialogue, power companies and the Centre must inspire greater trust in the residents of the region: infrastructure development will have to necessarily account for the region's constraints.

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From the abrogation of the special status of Jammu and Kashmir, to the landmark Ayodhya verdict, 2019 proved to be an eventful year.

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