Threats for bird species in India

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Why is in news? Bird species plummeting in India, says new report: What are the major threats to them

A report on India's bird population has **painted a grim picture** for many of the country's species. Out of the 942 bird species that were assessed, 142 are diminishing and only 28 are increasing.

While raptors, migratory shorebirds, and ducks have declined the most, birds living in habitats like open ecosystems, rivers, and coasts are among the worst affected, the **State of India's Birds (SoIB) report** added.

About the report:

The **State of India's Birds (SoIB) report** – published recently – showed worrisome declines, with **178 species of wild birds identified as needing immediate priority for conservation**.

SoIB is published by the **State of India's Birds Partnership**, a group of 13 government (including SACON, WII, ZSI) and non-governmental organisations.

The report analysed data collated from India's birdwatchers and conservation organisations on **942 bird species,** including several previously thought to be common and widespread.

It **recommended an urgent reassessment of the status of 14 of these species**, including the Indian roller, which is listed by the International Union for Conservation of Nature as being of "least concern".

Worldwide, common and widespread species are declining. But in India, lack of information has meant that conservation attention has been focussed on only a few species (usually large, charismatic and threatened).

The 2023 Report, in its second iteration (1st in 2020), fills this gap by using over 30 million observations uploaded to the **e-Bird platform** by more than 30,000 birdwatchers.

This helped in evaluating the distribution range size of 942 Indian birds, and their trends in abundance in both the long term (over 25+ years) and currently (since 2015).

Using these three measures, plus information from the IUCN Red List of global threat status, this report places Indian species into Low, Moderate and High categories of Conservation Priority for India.

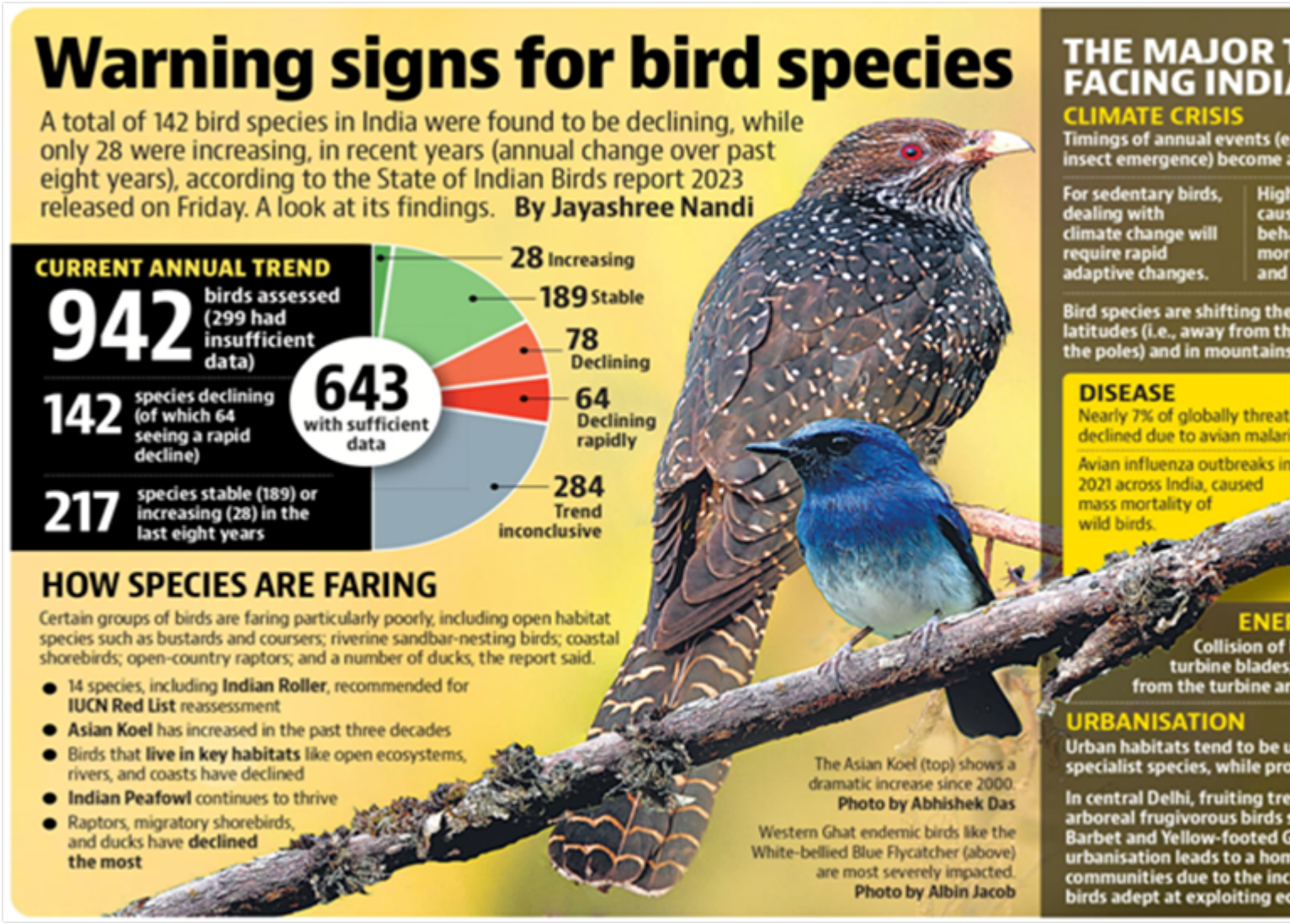
Of the 338 species that had enough data to assess for long-term trends, **60% of the species showed long-term declines**. Of the 359 species analysed for current annual trends, 40% are declining.

A **few generalist bird species** such as the national bird - the Indian peafowl, are doing extremely well in the country. There has been a 150% increase in the abundance of peafowl across the country over the past decades.

Out of the all 942 species, **178 species are classified as High Priority,** 323 as Moderate Priority, and 441 as Low Priority.

The High Priority species include migratory wetland birds like the Ruddy shelduck, resident species such as the Indian courser, endemics such as the Narcondam hornbill and the Nicobar megapode on Nicobar Island.

The key factors responsible for the decline are like **urbanisation, infrastructural development, environmental pollutants, and climate change**.



Major threats:

Pollutants and diseases:

Environmental pollutants including veterinary drugs such as **nimesulide** still threaten vulture populations in India.

Other concerns include the impacts of climate change (such as on migratory species), **avian disease and illegal hunting and trade.**

Climate change:

The **average global temperature has risen by over 1 degree Celsius** since pre-industrial times, resulting in catastrophic consequences not only for humans but also for other living beings, like birds.

Mismatches in seasonal timing (of migration, breeding, emergence) between birds and their prey **can reduce survival and reproduction** and also lead to fatal competition with other species.

Soaring temperatures force sedentary birds to go through **rapid adaptive changes**.

Urbanisation:

The most urbanised regions in India have the **least number of bird species**, the least number of rare species, and the fewest insectivorous species.

It's because urbanisation results in **loss of natural habitat for birds** and it **exposes them to more air pollution and high temperatures**.

Not only this, cities have **noise pollution**, which forces birds to sing louder, or at different frequencies, or, in the worst case, to abandon otherwise suitable habitat.

Meanwhile, **light pollution may confuse and disorient them**, causing them to collide with buildings.

Ultimately, **lack of food supplies in urban areas** leads to the **homogenisation of bird communities** as only behaviourally dominant species such as House Crows and feral Rock Pigeons are able to survive.

Monocultures:

Monoculture is the **practice of growing one type of seed in a field at a time**. In India, commercial monoculture plantations of rubber, coffee, and tea have been rapidly expanding in recent years.

For example, **tea plantations** have grown from 5,214 sq km to 6,366 sq km from 2003 to 2020, **Oil palm plantations** have also increased across the country with expanding hotspots located in **Andaman and Nicobar Islands**, and the **north eastern Himalaya**. However, such plantations are detrimental to the well-being of birds.

Commercial monocultures are known to harbour fewer bird species than natural forests within the same biome.

For instance, **oil palm plantations in Mizoram** support only 14% of the bird species found in comparable rainforests. In **Uttarakhand, teak plantations** can shelter just 50% of the total woodpecker species seen in the state's sal forests.

Energy infrastructure:

The countries have started to **generate power using renewable resources** instead of depending on conventional methods like coal-fired power plants.

It has led to an **increase of wind turbines** in a country like India, where they have been installed in a wide range of landscapes including coastal areas, Western Ghats mountaintops, open arid lands, agricultural lands, and grasslands.

Although wind turbines are eco-friendly, they have **emerged as a threat to birds**, the report has revealed.

A wide range of species are known to have been **killed due to collisions with wind turbines**. Several of them have migrated to regions where there aren't such giant devices.

The **transmission lines** have also led to the death of many large-bodies species because of collision and numerous small-bodies species have been electrocuted. A literature review reveals that over 60 species from 33 families of birds are affected by collisions and electrocution at power lines in India.

Way forward:

Our laws and policies are largely framed around what we need to do to save threatened species but equally we need to keep common species common.

Species-Specific Conservation: The decline of grassland specialists by over 50% highlights the need to safeguard and manage grassland ecosystems effectively.

Long-Term Monitoring: Continuous monitoring of bird populations is crucial for understanding subtle population changes and formulating effective conservation strategies.

Research Imperative: In-depth research is essential to comprehend the underlying reasons behind population declines or increases, enabling informed decision-making.

Integrated Policies: Policies concerning development, such as those related to rivers, water, and wastelands, must align to support bird habitats and ecosystems.

Citizen Engagement: Citizen participation must be integral to any conservation action plan, contributing significantly to biodiversity conservation efforts.