



## Perspective: No Wild, No Life

### Why in News?

According to the recent data from the [International Union for Conservation of Nature \(IUCN\) Red List of Threatened Species](#), over **8,400** species of wild fauna and flora are critically endangered, while close to **30,000** more are **understood to be endangered or vulnerable**.

### What is India's Track Record?

- India is one of the **most biodiverse regions** of the world, home to **three biodiversity hotspots** - [the Western Ghats](#), [the Eastern Himalayas](#), and [the Indo-Burma hotspot](#) and Sundalands.
- India has [seven natural World Heritage Sites](#), [11 Biosphere Reserves](#), and [49 Ramsar sites](#).
- According to the IUCN, Red List of Threatened Species, **239 faunal species which are known to occur in India are classified as endangered species** including 45 species of mammals, 23 species of birds, 18 species of reptiles, 39 species of amphibians, and 114 species of fishes.
- India has a network of 987 [Protected Areas](#) including 106 [National Parks](#), 564 [Wildlife Sanctuaries](#), 99 [Conservation Reserves](#), and 218 [Community Reserves](#) covering a total of **1,73,053.69 km<sup>2</sup>** of the geographical area of the country which is **approximately 5.26%**.
- Along with the **gradual destruction** of the [Aravali ranges](#), the [Thar desert](#) in western Rajasthan is **expanding fast because of the migration of people**, changes in the rainfall pattern, the spread of sand dunes, and unscientific plantation drives.
  - The migration of people results in human activities that **contribute to the desertification of their host places such as** the expansion and intensive use of agricultural lands, poor irrigation practices, deforestation, and overgrazing which place **enormous pressure on the land and pose a threat to the desert ecology also**.

### The Great Indian Bustard

- The Great Indian Bustard (GIB), the State bird of Rajasthan, is **considered India's most critically endangered bird**.
- It is considered the **flagship grassland species**, representing the **health of the grassland ecology**.
- Its population is confined mostly to **Rajasthan and Gujarat**. Small populations occur in Maharashtra, Karnataka, and Andhra Pradesh.
- The bird is under constant threat due to **collision/electrocution with power transmission lines**, hunting (still prevalent in Pakistan), habitat loss and alteration as a result of widespread agricultural expansion, etc.

### What is Illegal Wildlife Trade?

- Wildlife trade means **taking and selling dead or living plants and animals** and the products

derived from them.

- The U.S. State Department estimates that **wildlife trafficking is the third-largest type of illegal trade**, after drugs and weapons, with the value of smuggled goods totaling about \$10 billion a year.
- According to the **World Wildlife Crime Report 2020**, [Pangolins](#) are the most **trafficked mammals in the world**.

## What is the Impact of Illegal Wildlife Trade?

- The [illegal wildlife trade](#) is unsustainable, harming wild populations of animals and plants and **pushing endangered species toward extinction**.
- It also brings **several public health consequences**, such as the **spreading of zoonotic pathogens**.
  - Major public **health zoonotic diseases in India include** Rabies, Brucellosis, Toxoplasmosis, Cysticercosis, Echinococcosis, etc.
- Species also **face extinction** because of demands arising out of the illegal wildlife trade.
- **Overexploitation of wildlife resources** due to its illegal trade creates **imbalances in the ecosystem**.
- Illegal wildlife trade as part of the illegal trade **syndicates undermines the economy of the country** and thereby creates social insecurity.
- Wild plants that **provide genetic variation for crops** (natural source for many medicines) are threatened by the illegal trade.

## What does India State of Forest Survey Report, 2021 Depict?

- Nature is the **core of everything** and conservation of biological diversity **leads to the conservation of wildlife**. The most important thing is to save habitat while protecting a species. It's the way by which the **national natural heritage can be saved**.
- As per the recently released [India State of Forest Survey Report-2021](#):
  - **Total Forest Cover:**
    - India's forest cover is now **7,13,789** square kilometres, 21.71% of the country's geographical area, **an increase from 21.67% in 2019**.
  - **States with Highest Forest Area/Cover:**
    - **Area-wise: Madhya Pradesh has the largest forest cover** in the country followed by Arunachal Pradesh, Chhattisgarh, Odisha, and Maharashtra.
    - In terms of forest cover **as a percentage of total geographical area, the top five States are** Mizoram, Arunachal Pradesh, Meghalaya, Manipur, and Nagaland.
  - **Carbon Stock:**
    - The total carbon stock in the country's forests **is estimated at 7,204 million tonnes, an increase of 79.4 million tonnes since 2019**.

## Is it Possible to Reverse the Loss of Nature?

- Due to the **various legal frameworks of the Government**, the number of species that were nearly endangered in India **is increasing** gradually, such as:
  - The population of [one-horned rhinos](#) in Assam's [Kaziranga National Park and Tiger Reserve](#) (KNPTR) has increased by 200 in the past four years.
  - According to a report released by the Government of India, India's official **leopard count increased by 63% from 2014-2018**.
  - The latest report of the state forest department, [the National Tiger Conservation Authority](#) (NTCA), and the Wildlife Institute of India (WII) reveal there are a **minimum of 352 tigers and 635 leopards in Vidarbha**.

# What is India's Domestic Legal Framework For Wildlife Conservation?

## ▪ Constitutional Provisions for Wildlife:

- By the [42<sup>nd</sup> Amendment Act 1976](#) of the Constitution "Forests" was added as Entry 17A in the Concurrent List and the "protection of wild animals and birds" was added as Entry 17B.
- Article 51 A (g) of the Constitution states that it shall be the **fundamental duty** of every citizen **to protect and improve the natural environment** including forests and Wildlife.
- Article 48 A in the [Directive Principles of State Policy](#), mandates that the State shall endeavor to **protect and improve the environment and safeguard the forests and wildlife of the country.**

## ▪ Legal Framework:

- [Wildlife \(Protection\) Act, 1972](#)
- [Environment Protection Act, 1986](#)
- [The Biological Diversity Act, 2002](#)

## ▪ India's Collaboration With Global Wildlife Conservation Efforts:

- [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#)
- [Convention on the Conservation of Migratory Species of Wild Animals \(CMS\)](#)
- [Convention on Biological Diversity \(CBD\)](#)
- [World Heritage Convention](#)
- [Ramsar Convention](#)
- [The Wildlife Trade Monitoring Network \(TRAFFIC\)](#)
- [United Nations Forum on Forests \(UNFF\)](#)
- [International Whaling Commission \(IWC\)](#)
- [International Union for Conservation of Nature \(IUCN\)](#)
- [Global Tiger Forum \(GTF\)](#)

## Project Tiger

- [Project Tiger](#) is a Centrally Sponsored Scheme of the Ministry of Environment, Forests and Climate Change launched in 1973 to provide central assistance to the tiger States for tiger conservation in designated tiger reserves in India. The project is administered by the [National Tiger Conservation Authority](#) (NTCA).

## National Tiger Conservation Authority

- National Tiger Conservation Authority (NTCA) is a **statutory body** under the Ministry of Environment, Forests, and Climate Change.
- It was **established in 2005** following the **recommendations of the Tiger Task Force.**
- It was constituted under enabling provisions of the [Wildlife \(Protection\) Act, 1972](#), as **amended in 2006**, for strengthening tiger conservation, as per powers and functions assigned to it.

## Way Forward

- **Participation:** Only laws and technical expertise are **not enough**, on the local communities' part, it also needs to be understood that **their participation is as important.**
- **Conservation of Biodiversity:** Nature is the core of everything and conservation of biological diversity **leads to the conservation of wildlife.**
- **Habitat Loss:** Only 5% of India's geographical area is in the protected area category. This space is not enough to have a full-fledged habitat for wild animals.

- The most important thing is to **save habitat** while protecting a species. It's the way by which the **national natural heritage** can be saved.
- This has **forced the wild animals to move out** and venture close to human habitation in search of food, resulting in **human-animal conflicts**.
- According to Wildlife experts, if wildlife protection is confined to reserves and parks alone, **several species will stand on the brink of extinction**.
- **Threat to Protected Areas:** Protected areas are also **getting threatened by a huge number of governmental projects** like the widening of highways; railway networks mining; irrigation projects; transportation, etc.
  - Apart from highways, railway and irrigation projects are coming up in tiger reserves. For example- **the Ken-Betwa river interlinking project** will lead to the **submergence of a major portion of the core area of the Panna Tiger Reserve in Madhya Pradesh**.
- **Technology:** In this scientific world, **technology also plays an important part in conserving wildlife as well as habitat** such as:
  - **Camera Traps:** They have emerged as a powerful tool for conservation and ecological research.
    - These are being **used for a diversity of purposes**, including monitoring wildlife populations, **surveilling protected areas**, and capturing captivating images and videos for public engagement and citizen science.
  - **M-STRIPES (Monitoring System for Tigers - Intensive Protection and Ecological Status):** It is an app-based monitoring system, launched across Indian tiger reserves **by the NTCA in 2010**.
    - The system would enable field managers to assist intensity and spatial coverage of patrols in a geographic information system (GIS) domain.
  - Deployment of such technologies should be **ensured at required places**.

## Conclusion

Humans rely on wildlife and biodiversity-based resources to meet all their needs from food to fuel and economic opportunities. Time is of the essence to go ahead and take the action in terms of conserving wildlife habitats and restoring the overall ecosystem. A lot more needs to be done as we're at the edge of losing the species one by one.

## Previous Year's Question (PYQs)

**Q. If a particular plant species is placed under Schedule VI of the Wildlife Protection Act, 1972, what is the implication? (2020)**

- (a) A licence is required to cultivate that plant.
- (b) Such a plant cannot be cultivated under any circumstances.
- (c) It is a Genetically Modified crop plant.
- (d) Such a plant is invasive and harmful to the ecosystem.

**Ans: (a)**

**Q The "Red Data Books" published by the International Union for Conservation of Nature and Natural Resources (IUCN) contain lists of? (2011)**

1. Endemic plant and animal species present in the biodiversity hotspots.
2. Threatened plant and animal species.
3. Protected sites for conservation of nature and natural resources in various countries.

Select the correct answer using the codes given below:

- (a) 1 and 3
- (b) 2 only
- (c) 2 and 3
- (d) 3 only

**Ans: (b)**

**Q. Which one of the following groups of animals belongs to the category of endangered species? (2012)**

- (a) Great Indian Bustard, Musk Deer, Red Panda and Asiatic Wild Ass
- (b) Kashmir Stag, Cheetal, Blue Bull and Great Indian Bustard
- (c) Snow Leopard, Swamp Deer, Rhesus Monkey and Saras (Crane)
- (d) Lion-tailed Macaque, Blue Bull, Hanuman Langur and Cheetal

**Ans: (a)**

**Q. Consider the following statements: (2019)**

1. Under Ramsar Convention, it is mandatory on the part of the Government of India to protect and conserve all the wetlands in the territory of India.
2. The Wetlands (Conservation and Management) Rules, 2010 were framed by the Government of India based on the recommendations of Ramsar Convention.
3. The Wetlands (Conservation and Management) Rules, 2010 also encompass the drainage area or catchment regions of the wetlands as determined by the authority.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

**Ans: (c)**

**Q. With reference to India's Desert National Park, which of the following statements are correct? (2020)**

1. It is spread over two districts.
2. There is no human habitation inside the Park.
3. It is one of the natural habitats of Great Indian Bustard.

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

**Ans: (c)**