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## Reversing Global Wildlife Decline

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### Why in News

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Wildlife populations have fallen by **more than two-thirds** over the **last 50 years**, according to a **Living Planet Report 2020** of the **World Wildlife Fund**.

### Key Points

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- **Findings:**
  - **Related to Biodiversity:**
    - There has been a **reduction of 68% in the global wildlife population between 1970 and 2016.**
    - **The highest biodiversity loss due to land use change:** (1) Europe and Central Asia at 57.9 %; (2) North America at 52.5 %; (3) Latin America and Caribbean at 51.2 %; (4) Africa at 45.9 %; (5) Asia at 43%.
    - The **sharpest declines** have occurred throughout the world's **rivers and lakes**, where **freshwater wildlife** has **plummeted by 84%** since 1970 – about **4% per year.**
  - **Related to Land and Oceans:**
    - **75% of the Earth's ice-free land surface** has already been significantly **altered.**
    - Most of the **oceans are polluted.**
    - More than **85% of the area of wetlands has been lost** during 1970-2016.

- **India's scenario:**
  - India has 2.4% global land share, about 8% global biodiversity and around 16% global population
  - However, it has lost 12% of its wild mammals, 19% amphibians and 3% birds over the last five decades.
  - India's **ecological footprint per person is less than 1.6 global hectares (gha)/person** (smaller than that of many large countries). But, its high population size has made the gross footprint significantly high.
    - Ecological Footprint:** It is the amount of the environment necessary to produce the goods and services necessary to support a particular lifestyle.
- **Factors responsible for this decline:**
  - Changes in how land is used – from pristine forest to cropland or pasture – rank among the greatest threats to biodiversity on land worldwide.
  - Use and trade of wildlife.
  - Natural habitat loss.
  - Degradation and deforestation driven by food production processes.
- **Need for Conservation Efforts:**
  - Because the **health of nature is intimately linked to the health of humans.**
  - The **emergence of new infectious diseases like Covid-19** tend to be related to the destruction of forests and wilderness.
  - Healthy ecosystems are the foundation of today's global economies and societies, and the ones we aspire to build.
    - As more and more species are drawn towards extinction, the very life support systems on which civilisation depends are eroded.
  - As per the World Economic Forum, biodiversity loss is a disturbing threat with few parallels like extreme weather events, climate change, severe income inequality etc.

## Biodiversity

- It refers to **all the varieties of life that can be found on Earth** (plants, animals, fungi and microorganisms) as well as to the **communities that they form and the habitats in which they live.**
- **As per the Convention on Biological Diversity (Article 2):** Biological Diversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

- It can be understood at three levels:
  - **Species diversity** refers to the variety of different species (plants, animals, fungi and microorganisms) such as palm trees, elephants or bacteria.
  - **Genetic diversity** corresponds to the variety of genes contained in plants, animals, fungi and microorganisms. It occurs within a species as well as between species.
  - **Ecosystem diversity** refers to all the different habitats - or places - that exist, like tropical or temperate forests, hot and cold deserts, wetlands, rivers, mountains, coral reefs, etc.

## Convention on Biological Diversity

- The **Convention on Biological Diversity (CBD)**, a legally binding treaty to conserve biodiversity has been in force **since 1993**. It has **3 main objectives**:
  - The **conservation** of biological diversity.
  - The **sustainable use** of the components of biological diversity.
  - The **fair and equitable sharing** of the benefits arising out of the utilization of genetic resources.
- The targets of the Convention calls for global trends of terrestrial wildlife to stop declining and start recovering by 2050 or earlier.
- **India** became a **party to the Convention in 1994**.

## Major Indian Government Initiatives

- **Wildlife protection Act 1972**.
- Water (prevention and control of pollution) Act 1974.
- Air (prevention and control of pollution) Act 1981.
- **Environment Protection Act 1986**.
- **Biological Diversity Act 2002**.
- **Scheduled Tribes and other traditional forest dwellers (recognition of rights) Act 2006**.

## Areas of Action

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- **Conservation Reserves:** There must be **renewed ambition** from the world's governments to establish large-scale conservation areas, placed in the most valuable hotspots for biodiversity worldwide, such as small islands with species found nowhere else.
  - These reserves, in which wildlife will live and roam freely, will need to cover **at least 40%** of the world's land surface to help bend the curve from decline to recovery for species and entire ecosystems.
  - Management is more important than the size of reserves.

- **Habitat restoration** and conservation efforts need to be targeted where they are needed most – for species and habitats on the verge of extinction.
- **Food Production:** Need is to transform **our food systems** to produce more on less land.
  - If every farmer on Earth used the best available farming practices, only half of the total area of cropland would be needed to feed the world. There are lots of other inefficiencies that could be ironed out too.
  - Reducing waste and favouring healthier and more environmentally friendly diets.
- **Restoring Land:** Efforts to restore degraded land are also required. Such as farmland that's becoming unproductive as a result of soil erosion.
  - This could return 8% of the world's land to nature by 2050.
- **Afforestation:** This can help not only in arresting soil erosion but also expansion of desertification along with avenues for biodiversity replenishment.

## Way Forward

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- While giving back to nature, the conservation measures would simultaneously slow climate change, reduce pressure on water, limit nitrogen pollution in the world's waterways and boost human health.
- Only a comprehensive set of policy measures that transform our relationship with the land and rapidly scale down pollution can build the necessary momentum.

**Source:DTE**