

## UPSC Daily Current Affairs | Prelim Bits 10-10-2024

### Living Planet Report (LPR), 2024

*The recently released LPR, 2024 report said that significant 'collective effort' will be required over the next five years to tackle the dual climate and nature crises.*

- It is a **biennial compilation** of the threats faced to wildlife.
- **Released by** - World Wide Fund (WWF) in collaboration with Zoological Society of London (ZSL).
- It is provided by includes almost 35,000 population trends of 5,495 species from 1970-2020.
- **Findings** - There has been a **73%** decline in the average size of monitored wildlife populations from 1970-2020.
- The sharpest decline is reported in
  - Freshwater ecosystems at 85%, followed by
  - Terrestrial ecosystems at 69% and
  - Marine ecosystems at 56%.
- At a regional level, the fastest declines have been seen in **Latin America and the Caribbean** a concerning 95% decline followed by Africa (76%) and the Asia and the Pacific (60%).
- Declines have been less in Europe and Central Asia (35%) and North America (39%).
- **In India** - The report noted the decline in 3 vulture species in India.
  - Bombay Natural History Society (BNHS) highlighted white-rumped vulture population has dropped by 67%, Indian vulture by 48%, and slender-billed vulture by 89% compared to their populations in 2002.
- India is home to the largest population of wild tigers globally.
- The All-India Tiger Estimation 2022 recorded a minimum of 3,682 tigers, a significant increase from the 2,967 estimated in 2018.
- **Tipping point** - When cumulative impacts reach a threshold, the change becomes self-perpetuating, resulting in substantial, often abrupt and potentially irreversible change.
- Early warning signs indicate that several global tipping points are fast approaching:
- In the biosphere, the mass die-off of coral reefs would destroy fisheries and storm protection for hundreds of millions of people living on the coasts.
- The Amazon rainforest tipping point would release tonnes of carbon into the atmosphere and disrupt weather patterns around the globe.
- In ocean circulation, the collapse of the subpolar gyre, a circular current south of Greenland, would dramatically change weather patterns in Europe and North America.
- In the cryosphere (the frozen parts of the planet), the melting of the Greenland and West Antarctic ice sheets would unleash many metres of sea level rise.
  - Large-scale thawing of permafrost would trigger vast emissions of carbon dioxide

and methane.

- **Reasons** - Habitat loss and degradation, driven primarily by farming and consumes food followed by over-exploitation, invasive species, and diseases.
- Pollution is an additional threat for wildlife populations in Asia and the Pacific, which have recorded a 60% average decline.
- There are no India specific projections.
- **Shortfall in achieving goals** - Countries have agreed on ambitious global goals
  - To halt and reverse nature loss (the Global Biodiversity Framework),
  - Cap global temperature rise to 1.5C (the Paris Agreement), and
  - Eradicate poverty (the UN Sustainable Development Goals).
- But despite these global ambitions, national commitments and actions on the ground fall far short of what's needed to meet the targets for 2030.
- Over half the SDG targets for 2030 will be missed, with 30% of them stalled or getting worse from the 2015 baseline.
- National climate commitments would lead to an average global temperature increase of almost 3°C by the end of the century, inevitably triggering multiple catastrophic tipping points.
- National biodiversity strategies and action plans are inadequate and lack financial and institutional support.

## References

1. [The Hindu | Living Planet Index \(LPI\)](#)
2. [WWF | Executive Summary](#)

## Nobel Prize, 2024

*The Nobel Prize, 2024 has been announced recently.*

- A Nobel Prize is a prestigious ***international award*** given to individuals or organizations annually.
- **Founder** - Alfred Nobel.
- **Fields awarded** - Physics, Chemistry, Physiology or Medicine, Literature, Peace, and Economic Sciences.
- **Rationale** - To honor individuals who have made significant contributions that benefit humanity.
- The first set of awards were handed out in 1901, 5 years after Nobel's death.
- A Nobel Prize ***cannot be awarded posthumously***.
- **Award ceremony** - Takes place annually on December 10, the anniversary of Alfred Nobel's death.
- The award winners are also given a sum of \$1.1 million per prize.

<b>Chemistry, 2024</b>	David Baker	For computational design
	Demis Hassabis and John M.Jumper	For protein structure prediction

<b>Physics, 2024</b>	John J. Hopfield and Geoffrey E. Hinton	Use of statistical physics concepts in the development of artificial neural networks
<b>Physiology/Medicine, 2024</b>	Victor Ambros and Gary Ruvkun	Discovery of microRNAs

## References

1. [The Indian Express | Chemistry Nobel 2024](#)
2. [Nobel Prize | The Nobel Prize in Chemistry 2024](#)

## Marburg virus

*Rwanda recently reported that the Marburg disease infected at least 46 individuals and 12 Marburg deaths.*

- Marburg virus disease (Marburg) is a rare but severe hemorrhagic fever that can cause serious illness and death.
- Marburg is among the ***deadliest pathogens*** known to humans.
- Marburg belongs to the ***filovirus family***, like Ebola. Both pathogens are clinically similar, and rare.
- **Discovered in** - The first outbreak occurred in Marburg, Germany, in 1967. Since then, subsequent outbreaks have been mostly reported across Africa.
- **Caused by** - Prolonged exposure to mines or caves inhabited by colonies of ***Rousettus bats***, most notably the ***Egyptian fruit bat***.
- Marburg also spreads through human-to-human transition both
  - Directly (through contact with blood and other bodily fluids of infected people) and
  - Indirectly (through surfaces and materials like bedding, clothing, etc. Contaminated with these fluids).
- **Symptoms** - High fever, severe headache, muscle ache, severe watery diarrhoea, abdominal pain and cramping, and vomiting.
- Many patients develop haemorrhagic symptoms (bleeding), often in many places including the digestive system (faeces and vomit often come with fresh blood), the nose, gums, and vagina.
- Haemorrhage leads to most MVD fatalities, with death in fatal cases occurring 8 to 9 days after the onset of symptoms, usually of severe blood loss and shock.
- **Treatment** - Currently, there are no approved vaccines or specific treatments for MVD.
- **Fatality** - Marburg virus disease (MVD) case fatality rates ranging from 24% to 88% in past outbreaks, depending on virus strain and case management.

## References

1. [The Indian Express | What is Marburg virus?](#)
2. [WHO | Marburg virus disease](#)

## Halari donkeys

*The halari donkeys form close bonds with people, supporting for transport needs with the surviving population of fewer than 500.*

- Halari donkey is a beautiful breed of donkey native to Halar region of Gujarat.
- They are considered to be intelligent animals which work closely with human beings.
- **Appearance** - They are white in colour, and is larger and more resilient than other donkey breeds.
- **Habitat** - It is an important domestic animal in the semi-arid landscape of Jamnagar and Dwarka districts in Gujarat's Saurashtra region.
- **Community Usage** - The Bharwad and Rabari pastoralists are the main communities to use this donkey as a pack animal for carrying luggage during migration.
- The Kumbhar (potter) community also uses this animal for pottery work in the Jamnagar region.
- **Uses** - Halari donkey milk is known for its sweetness. Milk powder made from it can fetch upwards of ₹7,000 a kg in the international market, and is used for cosmetic purposes.
- **Conservation status** - Endangered.
- The Sahjeevan Trust has worked to conserve this breed in collaboration with the Animal Husbandry Department of the Gujarat government.



## Reference

[The Hindu | Halari donkeys](#)

## Amangarh Tiger Reserve

*The body of an eight-year-old tiger was found on the border of Amangarh Tiger reserve of Bijnor and Jim Corbett National Park recently.*

- Amangarh Tiger Reserve is a protected area in Bijnor district, Uttar Pradesh.
- The reserve encompasses a combination of grasslands, wetlands and dense forest.
- **Established in** - 2012.
- It is also known as New Jim Corbett Park.

- It has been declared as buffer area of Corbett Tiger Reserve to be known as the Amangarh Tiger Reserve, is now a corridor to Asiatic Elephant, Tiger and much other wild life.
- It is a part of ***Project Tiger*** and is recognized for its rich biodiversity and wilderness.
- The Reserve Was Said To Have 13 Tigers Which Jumped To A Total Of 20 In All India Tiger Estimation 2018.
- **Animals** - Tiger, Elephant, Swamp deer, Sambar, Cheetal, Hog deer, Kakar, Langur, Sloth bear, Porcupine, Otter, Monitor lizard, Turtles, Python, Gangetic Dolphin, Mugger, Gharial etc.
- **Birds** - Hornbill, Red Jungle Fowl, Pea fowl, Bengal Florican, Fishing eagle, Serpent eagle, Osprey, Woodpeckers, Shama, Indian Pitta, Paradise flycatcher, Orioles, Emerald dove etc.

## Reference

[Hindustan Times | Tiger found dead in Amangarh Tiger Reserve](#)

