

India's First Frozen Zoo

Syllabus

Prelims - General issues on Environmental ecology

Mains - GS III - Conservation

Why in News?

Padmaja Naidu Himalayan Zoological Park in Darjeeling is now home to India's first frozen zoo.

A **frozen zoo** is a genetic cryobank that stores genetic material (like DNA, sperm, eggs, and embryos) from animals that are typically endangered and are on the verge of extinction.

- **Collaboration between** - Padmaja Naidu Himalayan Zoological Park and Hyderabad-based Centre for Cellular and Molecular Biology.
- **Area coverage** - It spreads across 67.8 acres.
- **Altitude** - 2,150 metres (7, 050ft), it is *India's highest-altitude zoological park*.
- **Levels of preservation process**
- **Genetic sampling** - It requires storage at **-20°C**.
- **Bio-banking** - It is a *cryogenic conservation initiative* to preserve the genetic material DNA of endangered Himalayan species.
- The genetic material is stored in liquid nitrogen tanks at **extremely low temperatures of -196°C** for long-term preservation.
- **Aim** - To ensure that species such as red pandas, snow leopards, gorals, Mishmi takins, and others do not become extinct in the wild, their genetic blueprints are preserved.

The **Red Panda** is one of the species that will be preserved at the Frozen Zoo.

- **Species conservation** - The zoo is a leader in conservation breeding programs for red pandas, snow leopards, and Tibetan wolves.
- It has also undertaken conservation work for species like the Markhor (screw-horned goat), Mishmi takin, and Himalayan black bear.

- **Frozen zoos around the world** - There are less than a dozen frozen zoos across the globe.
- **1st frozen zoo** - It was created by *Kurt Benirschke in 1975* at the Institute for Conservation Research in San Diego.

References

1. [The Times of India| India's First Frozen Zoo](#)
2. [Outlook Traveller| Frozen Zoo Around the World](#)

