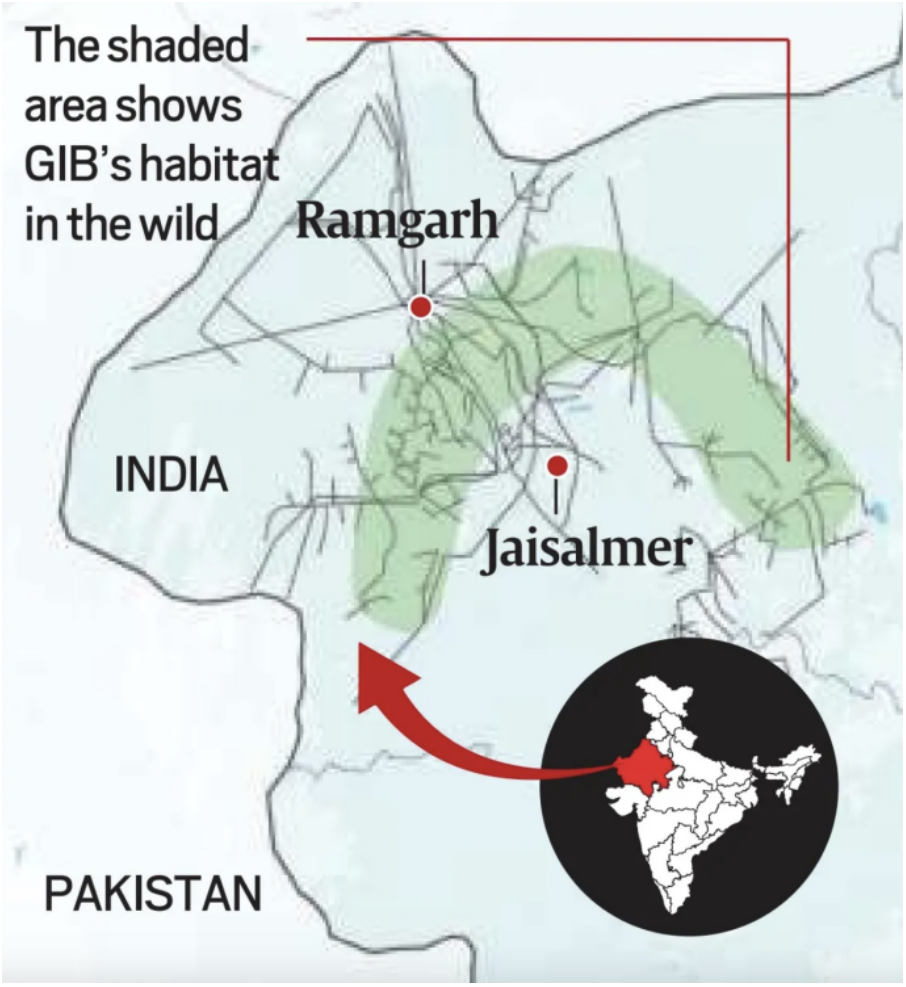
Great Indian Bustards' Recovery Program

Why in news?

Recently, the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) has recently approved Rs 56 crore for the next phase of the conservation of Great Indian Bustard (GIB) and Lesser Florican.

Discuss about Great Indian Bustard (GIB)?

- **GIB** – Great Indian Bustard is an avian species.
- **Scientific Name** – Ardeotis nigriceps
- **Population** – There are *currently less than 200 GIBs* in India.
- **Distribution range** – Over 120 Bustards are found in the desert and semi-arid landscape of ***Rajasthan*** alone.
- *Gujarat, Maharashtra, Karnataka, and Andhra Pradesh* are the other range states.
- *Madhya Pradesh*, another range state, has not recorded a Bustard sighting for several years.



- They are the largest among the four bustard species found in India and also the heaviest bird with flight.

Four Bustard Species in India
• Great Indian Bustard • MacQueen's Bustard • Lesser Florican • Bengal Florican

- **Characteristic Features** –They have a *black crown on the forehead* contrasting with the pale neck and head.
- The *body is brownish* and the wings are marked with black, brown and grey.
- Dimorphism – Males and females generally grow to the same height and weight but *males have larger black crowns* and a black band across the breast.
- *Males have a gular pouch*, which helps produce a resonant booming mating call to attract females and can be heard up to a distance of 500 metres.
- These birds are opportunist eaters whose diet ranges widely depending on the seasonal availability of food.
- **Protection status**
  - **Indian Wildlife (Protection) Act, 1972** – Schedule I
  - **CITES** – Appendix I
  - **IUCN Red List** – Critically Endangered
- **Significance** – It is a large bird found only in India.
- It is known to be a ***key indicator species of the grassland habitat***, which means its survival also signals the health of grassland habitats.

What are the major causes of decline of these species?

Over the past four decades, the population of Great Indian Bustard has declined steadily from being in the range of 700 individuals to less than 150 as of today, as per the Rajasthan Forest Department.

- **Loss of habitats** – *Conversion of grasslands and scrublands into agricultural fields* has resulted in the loss of natural habitats.
- **Disrupted migration route** – Infrastructure projects like roads, buildings, and wind turbines *disrupt the habitats and migration routes* of the GIB.
- **Hunting and poaching** – Historically, hunting for sport and meat significantly reduced their numbers.
- Though hunting is now illegal, *occasional poaching still occurs*.
- **Predation** – Increase in population of predators like feral dogs and foxes in the bustard's habitat, often due to human activity, has led to *higher predation rates on eggs and chicks*.
- **Pesticides and agrochemicals** – The use of pesticides in agricultural fields can *poison the birds directly* or *reduce the availability of their insect prey*.
- **Collisions with Power Lines** – The poor frontal vision of the GIB's and their inability to swerve away from overhead power lines in their flying path are leading to their collision.

    - A 2020 WII study estimated that ***18 GIB's die annually due to collision*** with overhead high-tension power lines in the Thar landscape.
- In the case of low-voltage lines, electrocution is often the cause of death due to smaller phase to phase separation distance.
- High voltage lines do not cause death due to electrocution but cause death due to collision.

What are the conservation measures taken by India?

- **National Bustard Recovery Plan** – It is the plan to recover the species which was first *started in 2013*.
- **Bustard Recovery Project** – It was launched *in 2016*, planned by the Rajasthan government as well as the Environment Ministry.
- The Compensatory Afforestation Fund, which consists of money collected for afforestation in lieu of diversion of forests for non-forest uses, funded this project.
- **Tripartite agreement** – In 2018, a tripartite agreement was signed between the Ministry of Environment, Forest and Climate Change, Rajasthan Forest Department and Wildlife Institute of India (WII).
- This involved the following conservation measures
    - Opening long-term *conservation breeding centres* (CBC) in Ramdevra and Sorsan
    - Implementing field research projects such as *telemetry-based bird tracking* and population surveys
    - *Habitat management* as well as *outreach to local communities*.

*The scientific reasoning behind creating a **founder population** is to have a minimum viable population to prevent the probability of extirpation of the captive population and to capture the genetic variability of the source population.*

- **Recovery program** – It was prepared by Wildlife Institute of India (WII), an autonomous body under the Union Environment Ministry.
    - Rewilding Bustards bred in ex-situ conservation centers.
    - Conducting detailed population studies in Rajasthan and other Bustard range states.
    - Developing artificial insemination techniques

The WII has been collaborating with the Abu Dhabi-based International Fund for Houbara Conservation for the artificial insemination.

Conservation Breeding
• It is the process of artificial breeding where birds from the wild are caught and mating takes place in a natural habitat. • The second generation of these birds are released into the wild. • In case of Great Indian Bustard, second generation birds will be given to participating states like Gujarat. • The states will then take up their own breeding programmes.

- While the total length of the next phase of the GIB and Lesser Florican conservation ***is 2024-2033***, the immediate *next phase will run till 2029.*
- **Hotspot mapping** – WII has mapped the threats posed by power lines and renewable infrastructure across the 20,000 sq km GIB landscape.
- **Control of predators** – In collaboration with Humane Society International, *801 dogs were sterilized* in 23 villages in and around the Desert National Park in 2018-19.
- Predators such as monitor lizards, foxes and dogs were also *captured and translocated* from Bustard breeding areas, as per WII's annual report on the recovery program.
- **Supreme Court** – It had constituted an *expert committee* to determine the "scope, feasibility and extent" of overhead and underground electric lines in the area.
- It also recognised the *right of the people against adverse impacts of climate change* as part of the *fundamental right to life* and *right to equality.*

What lies ahead?

- Restoring degraded grasslands and traditional GIB habitats by controlling invasive species, reducing grazing pressure, and implementing sustainable land-use practices.
- Establishing breeding centers, such as the one in Jaisalmer, Rajasthan, focuses on increasing the number of GIBs through controlled breeding efforts.
- Installing bird diverters on power lines to make them more visible to the GIBs, reducing the risk of collision.

References

1. The Indian Express| Funding for GIB Conservation Program
2. The Indian Express| Conservation Breeding of GIBs
3. WWF| Great Indian Bustard

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