Dhole Conservation Breeding Programme

Mains Syllabus: GSIII - Conservation

Why in news?

Recently, the Indira Gandhi Zoological Park announced the successful birth of 14 dhole puppies, showcased a thriving breeding effort for this endangered species.

What is the dhole conservation breeding programme?

- **Dhole conservation breeding programme** – It is a **captive breeding and release program focused** on increasing the population of the Asiatic Wild Dog (dhole).
- It aims to mitigate threats like **inbreeding and habitat loss**, and to improve understanding of the species for better conservation efforts.
- The first dedicated conservation breeding facility for dholes in India was established in 2014.
- **Location –** Indira Gandhi Zoological Park (IGZP), Visakhapatnam, Andhra Pradesh
- **Implemented by –** Indira Gandhi Zoological Park (IGZP) and supported by Central Zoo Authority (CZA).
- **Research and technical support -** Wildlife Institute of India (WII), Dehradun and LACONES, Hyderabad
- **Partner zoos for genetic exchange:**
  - Nehru Zoological Park (Hyderabad)
  - Arignar Anna Zoological Park (Vandalur)
  - Sri Venkateswara Zoological Park (Tirupati)
- **Main objectives of the programme**
  - Breed endangered dholes in captivity
  - Maintain a healthy gene pool
  - Understand dhole behaviour and social dynamics
  - Generate data for scientific research
  - Support potential future reintroductions into protected habitats

Dhole (Asiatic Wild Dog)

• **Scientific Name –** *Cuon alpinus*
• **Common Names –** Dhole, Asiatic Wild Dog

• **Physical Features –** Rusty-red coat, bushy black-tipped tail. Slim, agile body with long legs.
• **Habitat –** It is found in forests, grasslands, and scrublands and it prefers **densely vegetated regions** with access to water.
• In India it is found in Western Ghats, Eastern Ghats, central India, northeast, and Himalayas.
• **Conservation Status**
  - **IUCN Status –** Endangered
  - **Indian Wildlife Protection Act –** Schedule II
• **Major Threats –** Habitat loss due to deforestation and human encroachment, decline in prey species, disease transmission from domestic dogs.

What is the methodology involved in breeding?

- **Careful pair selection** – Potential breeding pairs are identified based on health, age, and compatibility.
- **Gradual introduction –** Once deemed compatible, pairs are moved into a shared enclosure (day kraal) for natural mating over 3–5 days.
- **Simulated natural habitat** – Breeding areas are designed to mimic wild

habitats with trees, dens, water pools, and space for natural behaviours.

- **Low-interference monitoring –** Pregnant females and new mothers are left undisturbed and caretakers observe from a distance to minimize stress.
- **Monitoring and documentation** – Each dhole are tagged, and records such as health, breeding status, and behaviour are maintained in studbooks for long-term genetic tracking and population management.

What are the positive outcomes of the programme?

- Conservation breeding centre at Visakhapatnam Zoo has successfully bred over 40 dholes, including 16 pups and it is recognised as a national centre for dhole conservation
- It provides a captive safety net for a declining wild species and led and contributed crucial insights into dhole social and reproductive biology.
- It encourages research into lesser-known carnivores and provoide valuable insights on Dhole conservation across India.
- It educates zookeepers and researchers through observation and shows the potential of well-managed conservation breeding.

Indira Gandhi Zoological Park has been formally recognised by the Central Zoo Authority as ***India's flagship conservation breeding centre*** *for Asiatic wild dogs.*

What are the other major challenges encountered?

- **Limited founder population** – The breeding programme started with a very small number of wild-caught dholes, leading to a restricted genetic base, which risks inbreeding and reduces long-term viability.
- **Genetic bottlenecks** – Due to the low genetic diversity, there's an increased risk of inherited health problems and poor reproductive success, making it difficult to build a strong, diverse captive population.
- **Unpredictable breeding behaviour –** Dholes have complex social hierarchies, and successful mating often depends on stable pack dynamics.
- **Stress and handling issues –** Dholes are highly alert and fidgety, making it difficult to handle them for medical care or tagging.
- Physical restraint causes stress, so veterinarians rely on non-invasive techniques like blowpipes and remote monitoring.
- **Lack of awareness and research gaps –** There is limited scientific data

on dhole behaviour, reproductive biology, and disease management.

What lies ahead?

- Developing a genetically strong and behaviourally stable captive population
- It serves as a referral and knowledge hub for dhole conservation in India
- Expanding collaboration across more zoos and wildlife centres.
- Preparing for eventual reintroduction into suitable protected habitats

Reference

The Hindu| Reviving India’s elusive predator

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