PROJECT CHEETAH

SYLLABUS:

GS 3 > Environment & Ecology > Species extinction & protection

IN NEWS:

- The Banni Grasslands in Gujarat, the largest such expanse in the Indian subcontinent and one of the ten designated sites for cheetah rehabilitation in the country, has recently been declared fully prepared to host the big cats.

PROJECT CHEETAH (INDIA'S CHEETAH REINTRODUCTION PROGRAMME):

- Project Cheetah is an ambitious initiative launched by the Government of India to reintroduce cheetahs into the country after their extinction over 70 years ago.
- This project, which began in **September 2022**, is a collaborative effort between India, Namibia, and South Africa, marking the **first transcontinental relocation of wild cheetahs.**
- This translocation took place in **two batches of 8 and then 12 cheetahs.(** First Batch: **8 cheetahs from Namibia** (Sept 2022), Second Batch: **12 cheetahs from South Africa** (Feb 2023))
- The goal is not only to restore the species to its natural habitat but also to revitalize and conserve **India's grassland ecosystems**.
- In India, the Cheetah's population got **completely wiped out in the early 1950s, mainly due to over-hunting and habitat loss.**
- **Sites:**
  - **Kuno National Park**, Madhya Pradesh **(initial release site)**
  - **Gandhi Sagar Sanctuary**, Madhya Pradesh (2 cheetahs shifted in April 2025)
  - **Banni Grasslands**, Gujarat — recently declared ready for cheetahs
  - **Veerangana Durgavati Tiger Reserve**, MP — expected next site
  - **Shahgarh Bulge**, Rajasthan — identified for future release
- **Current Status of Project Cheetah (as of July 2025):**

Surviving Adults:	11 (from original 20 translocated)
Cubs Born in India:	26
Cubs Survived:	17

Total Surviving Cheetahs: 28 (11 adults + 17 cubs)

WHY WERE CHEETAHS REINTRODUCED IN THE COUNTRY?

- **Restore grassland ecosystems**:
  - Cheetahs help restore grassland ecosystems by controlling herbivore populations, preventing overgrazing, and maintaining biodiversity.
  - According to the **United Nations Convention to Combat Desertification (UNCCD)**, India has **lost 31% of its grasslands** in a decade, and cheetahs, as top predators, are vital to preserving these ecosystems.
  - For instance, **Banni Grasslands in Gujarat, the largest such expanse** in the Indian subcontinent, have been readied as a cheetah site to aid grassland restoration through species rebalancing.
- **Conserve natural heritage**:
  - The reintroduction of cheetahs, extinct due to human actions, aligns with the government's efforts to conserve India's natural heritage.
- **Ensure survival of the fittest**:
  - Unlike **ambush predators**, like tigers, leopards and lions, cheetahs hunt by chasing prey, culling weak animals and keeping the prey population healthy.
  - For instance, the cheetah served as an **evolutionary force** and was **responsible for the fast speed of the blackbuck**, its major prey.
- **Successful conservation model**:
  - The philosophy behind Project Tiger—using **top carnivores** to sustain ecosystems—applies to cheetahs in non-tiger regions, serving as a flagship species for conservation.
  - For instance, sites like Gandhi Sagar Sanctuary (MP) and Banni Grasslands (Gujarat) are being prepared under a **multi-site model**, creating a **metapopulation strategy** to **mirror Project Tiger's decentralised approach.**

A **metapopulation strategy** in Project Cheetah refers to reintroducing cheetahs across multiple sites like Kuno, Gandhi Sagar, Banni Grasslands, and Shahgarh to create small, connected populations. This approach enhances genetic diversity, reduces extinction risk, and mimics natural dispersal, making the population more resilient and sustainable.

- **Livelihood opportunities**:
  - Cheetah reintroduction can boost local livelihoods through ecotourism. Kuno Palpur could attract global tourists as the **only sanctuary hosting lions, tigers, cheetahs, and leopards**, benefiting local communities through eco-development initiatives.

KEY ACHIEVEMENTS OF PROJECT CHEETAH

- **Successful Translocation of African Cheetahs**:
  - Project Cheetah saw the successful translocation of 20 cheetahs from Namibia and South Africa to Kuno National Park, Madhya Pradesh. This marked the first intercontinental relocation of wild cheetahs. This project is a notable example of international cooperation in wildlife conservation.
- **Establishment of Breeding Population:**
  - The translocated cheetahs have bred successfully in India—**26 cubs have been born**, with **17 surviving**, translating to a survival rate of **65%**, and **6 successful litters** in 2.5 years, including a record litter of **five cubs born in early 2025.**
- **Adaptation to Indian Ecology**:
  - The cheetahs have shown remarkable adaptability—learning to hunt native prey like **chital, blackbuck, and nilgai**, even under climatic differences. Radio-collar data reveal they now roam **4–6 km per day** in soft-release enclosures—evidence of behavioural acclimatization
- **Public and Media Attention**:
  - The initiative has captured global and domestic attention, becoming a **flagship conservation project** and driving **educational outreach**. It has helped sensitize the public and academia about biodiversity conservation.
- **Expanding Protected Areas**:
  - A **metapopulation strategy** is underway, connecting multiple reintroduction sites—**Kuno, Gandhi Sagar Sanctuary, Banni Grasslands, and Shahgarh Bulge**—to accommodate **60–70 cheetahs** over a trans-state corridor, enhancing ecological viability.
- **Interstate Coordination**:
  - Project Cheetah has brought attention to the importance of **interstate landscape management** for the long-term survival of cheetahs. Radio-collar data showed that cheetahs like Veera and Pawan often ventured beyond park boundaries, indicating the need for coordinated conservation efforts across different jurisdictions.
- **Wildlife Research and Monitoring**: Project Cheetah has enabled growth in research:
  - Use of **radio collars** to study movements and habitat use

- Monitoring **survival rates (70% first-year, 85.7% second-year for adults)** and **66.7% cub survival** rate—a signal of ecological success

- **Boost to Ecotourism**:
  - The reintroduction of cheetahs is expected to boost ecotourism in Madhya Pradesh and surrounding states.
  - For instance,_Tourist visits to **Kuno** and **Gandhi Sagar** have surged since cheetah introduction. Kuno saw revenues grow from ₹2.4 lakh (Oct 2021–June 2022) to ₹3.5 lakh (Oct 2024–2025), with **29 cheetahs** (including 19 cubs) currently there—driving economic upliftment for local communities.

CHALLENGES AND CONCERNS:

- **Mortality Among Translocated Cheetahs:**
  - Out of the 20 cheetahs trans located from Namibia and South Africa, **9 have died** as of July 2025. Causes include **mating-related injuries**, **septicaemia from tick infestations**, and stress-related health issues.
  - The most recent death occurred in July 2025, when a female cheetah named *Nabha* succumbed to injuries, reducing the population in Kuno to 26.
- **Infections from Collars:**
  - Several cheetahs suffered infections, including **fly-strike and septicaemia**, caused by tick infestations under **tight-fitted radio collars** in India's humid climate. Experts have raised concerns over collar design and hygiene protocols.
- **Prolonged Captivity:**
  - Many cheetahs have remained in **soft-release bomas** for over two years, far beyond the initial few-month acclimatisation plan. Although some were briefly released into the wild, many were returned to enclosures due to injury, poor adaptation, or risks from leopards and low prey availability.
- **Lack of Freedom to Roam:**
  - Cheetahs are wide-ranging species that need vast, open landscapes.
  - **Kuno National Park** (less than 500 sq miles) has been criticised for its spatial limitations, which restrict natural hunting, territorial behaviour, and movement necessary for cheetah survival and breeding.
- **Need to Survive Competition:**
  - Cheetahs in Kuno currently face **limited competition** from other top predators like lions. However, the **dense leopard population** (91 individuals) introduces new challenges in terms of prey competition, space use, and dominance, especially as cheetahs are less aggressive.
- **Conservation of Indigenous Species:**
  - Critics argue that Project Cheetah diverts focus and funding away from **endangered native species** like the Indian wolf, caracal, blackbuck, and great Indian bustard, which face immediate extinction threats but receive limited attention.
- **Prey Base Deficit:**
  - Prey density in Kuno has dropped from **23.4 animals/sq km (2021)** to **17.5 animals/sq km (2024)**. Current prey populations (~6,700 chital and 100 other ungulates) are insufficient for both cheetahs and 91 leopards. Leopards

need ~23,600 prey annually, and cheetahs need ~3,120, creating a significant ecological deficit.

- **Leopard-Cheetah Conflict:**
  - Leopards dominate the same landscape and may **outcompete cheetahs** for limited prey and territory. This competition can lead to higher cheetah mortality and prevent the establishment of stable cheetah ranges in the wild.
- **Open Ecosystem Restoration:**
  - Cheetahs thrive in **grasslands, savannahs, and scrublands**, but India's focus on forest conservation has led to degradation of these open ecosystems. Project Cheetah aims to reverse this, but **restoration is long-term** and requires dedicated land-use change and policy support.
- **Interstate Conservation Challenges:**
  - Radio-collared cheetahs like **Veera and Pawan** have crossed into neighbouring states like Rajasthan and Gujarat. This highlights the need for **coordinated management**, interstate movement protocols, and aligned policies between MP, Rajasthan, and Gujarat.
- **Logistical and Administrative Challenges:**
  - Creating wildlife corridors (e.g., **Kuno–Gandhi Sagar–Shahgarh**) involves **land acquisition**, community engagement, and bureaucratic approvals. These steps are **time-consuming** and often hindered by inter-agency delays and political will.
- **Risk of Conflict:**
  - As cheetahs begin to roam beyond protected areas, their interaction with human settlements and **livestock depredation risks** grow. Although cheetahs are not dangerous to humans, such incidents can provoke **retaliatory killings** and undermine community support for the project.

WAY FORWARD:

- **Strengthening Prey Base:** Intensify prey augmentation efforts in Kuno and future sites like Banni and Gandhi Sagar by introducing more chital, sambar, and blackbuck to meet the dietary needs of both cheetahs and leopards.

- **Implementing the Metapopulation Strategy:** Operationalise the translocation of cheetahs to **Gandhi Sagar**, **Banni Grasslands**, and **Shahgarh Bulge** to distribute population pressure, reduce mortality risk, and simulate natural dispersal across landscapes.

- **Improving Health Protocols and Equipment:** Redesign radio collars suitable for Indian climatic conditions. Regular veterinary check-ups and early intervention systems (e.g., thermal sensors or bio-tag alerts) should be integrated into monitoring.

- **Establishing Functional Wildlife Corridors:** Fast-track habitat linkage projects (e.g., Kuno–Gandhi Sagar–Shahgarh corridor), ensuring connectivity through protected and restored patches. Collaborate with local communities to reduce resistance and encourage habitat stewardship.

- **Fostering Interstate Cooperation:** Develop a formalised **interstate cheetah management protocol**, supported by MoEFCC and NTCA, to manage movement, rescue, and re-release of cheetahs straying across state lines.
- **Promoting Community-Based Ecotourism:** Scale up ecotourism initiatives in Madhya Pradesh and Gujarat using the cheetah as a flagship species. Revenue-sharing models with local communities will increase public support for conservation.
- **Integrating Indigenous Species Conservation:** Complement Project Cheetah with dedicated action plans for **native species** like the great Indian bustard, caracal, and wolf to ensure a balanced, ecosystem-based conservation approach.

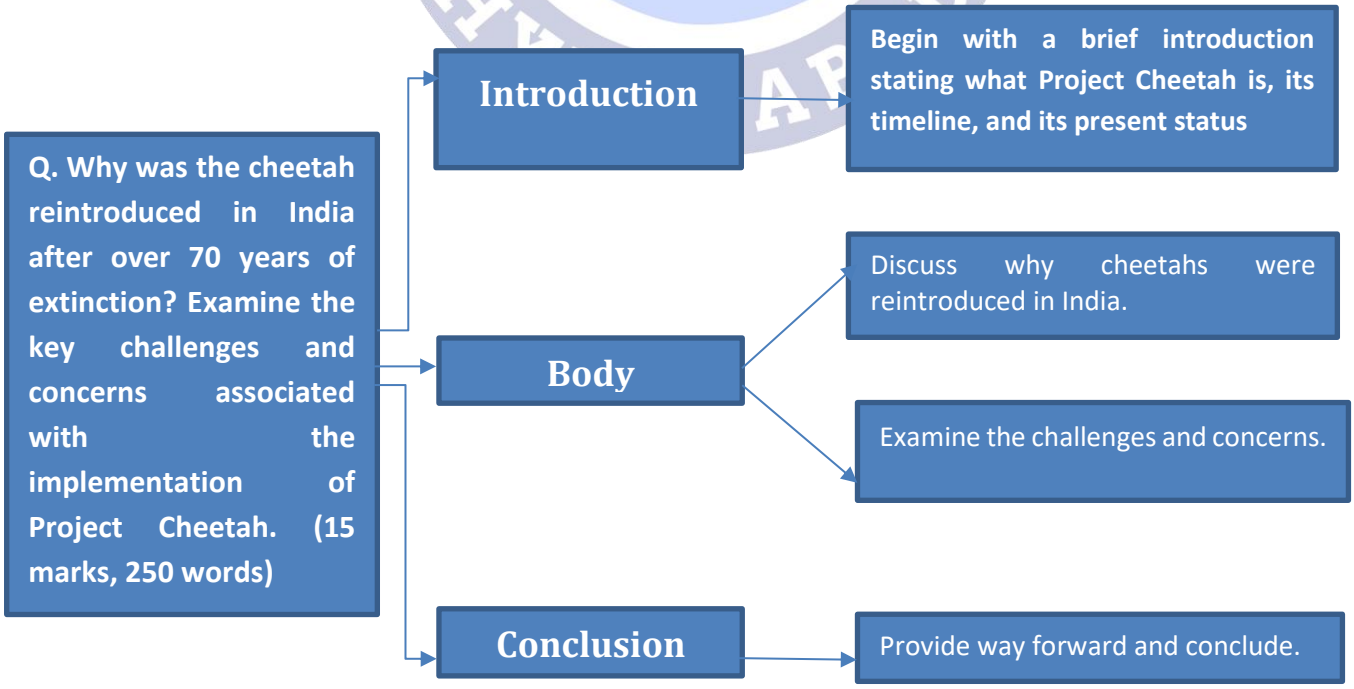
CONCLUSION:

- Project Cheetah marks a bold attempt to **reintroduce a lost species and restore India's grassland ecosystems.** While early successes in translocation and breeding are encouraging, challenges like habitat limitations, prey scarcity, and health issues persist. Moving forward, success will depend on expanding to multiple sites, strengthening habitat and prey base, and ensuring coordination across states. A balanced, long-term approach integrating native species conservation is vital for sustainable outcomes.

PRACTICE QUESTION:

Q. Why was the cheetah reintroduced in India after over 70 years of extinction? Examine the key challenges and concerns associated with the implementation of Project Cheetah. (15 marks, 250 words)

APPROACH:



MODEL ANSWER:

Project Cheetah, launched in 2022, is India's first initiative to reintroduce a large carnivore after extinction. It involves the translocation of African cheetahs from Namibia and South Africa to **restore ecological balance and revitalize degraded grasslands**. As of July 2025, **28 cheetahs (11 adults and 17 cubs)** are surviving across sites like Kuno and Gandhi Sagar.

Why Cheetahs Were Reintroduced in India:

1. **Restoration of Grassland Ecosystems:** Cheetahs control herbivore populations like chital and blackbuck, preventing overgrazing and supporting grassland regeneration, which has declined by 31% in a decade (UNCCD).
2. **Revival of Extinct Species:** Cheetahs became extinct in India in the early 1950s due to hunting and habitat loss. Their reintroduction serves as ecological justice and heritage restoration.
3. **Evolutionary Role:** Cheetahs target weaker prey, improving prey fitness and contributing to natural selection—essential in open ecosystems.
4. **Non-forest Conservation Model:** Like Project Tiger in forests, Project Cheetah creates a flagship species-based model for conserving India's neglected grasslands and savannahs.
5. **Metapopulation Strategy:** Dispersing cheetahs across multiple sites (e.g., Kuno, Gandhi Sagar, Banni) improves genetic diversity and resilience against local extinction.
6. **Boost to Ecotourism and Livelihoods:** Reintroduction has increased tourist interest in Kuno and Gandhi Sagar, providing income for local communities through eco-development initiatives.

Challenges and Concerns:

1. **High Mortality:** 9 out of 20 translocated cheetahs have died due to mating injuries, infections, and stress—raising doubts over adaptability.
2. **Health Risks from Collars:** Tight radio collars in India's humid climate caused tick-borne septicaemia and fly-strike infections, leading to preventable deaths.
3. **Prolonged Captivity:** Many cheetahs remain in soft-release bomas for over two years, limiting their ability to establish wild territories.
4. **Prey Base Deficit:** Kuno's prey density declined from 23.4 to 17.5/sq km (2021–2024). The existing ~6,700 chital cannot support 91 leopards and the cheetahs simultaneously.
5. **Competition with Leopards:** Leopards dominate the same space, often outcompeting cheetahs for food and habitat, hampering cheetah survival and dispersal.

6. **Logistical & Policy Hurdles:** Interstate movement by cheetahs like Veera and Pawan revealed lack of formal coordination across states like MP, Gujarat, and Rajasthan.

Way Forward

- Increase prey populations through active rewilding (e.g., chital, blackbuck).
- Strengthen the metapopulation plan by operationalising releases in Banni, Gandhi Sagar, and Shahgarh.
- Improve collar design and veterinary protocols suited to Indian conditions.
- Establish interstate coordination mechanisms and wildlife corridors.
- Promote ecotourism with community participation and benefit-sharing.
- Balance focus by investing in native species conservation alongside cheetah reintroduction.

Project Cheetah is a bold step in conservation-led ecological restoration. While it has seen progress in breeding and public engagement, long-term success depends on adaptive management, policy coherence, and inclusive conservation that addresses both species and ecosystem-level challenges.