



Great Indian Bustard and Phosphate Rock Mine

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Why in News?

The **Union Environment Ministry's Expert Appraisal Committee (EAC)** has approved an **Environmental Impact Assessment (EIA)** for the **Birmania Rock Phosphate Mine**, which is proposed to be developed in the **potential habitat area** of the **Great Indian Bustard (GIB)** in **Jaisalmer, Rajasthan**.

What are the Key Facts Related to the Great Indian Bustard?

- **About:** GIB is one of the heaviest flying birds in the world, and mainly found in Rajasthan's Thar Desert, with small populations in Gujarat, Maharashtra, Karnataka, and Andhra Pradesh.
 - GIB is one among four bustard species found in India, **alongside the Lesser Florican, Bengal Florican, and Macqueen's Bustard**.
 - GIB is **omnivorous and vulnerable** to power line collisions due to **lack of frontal vision**.
- **Ecological Significance:** GIB is considered a **keystone species**, acting as an indicator of the health of grassland ecosystems and reflecting the overall pulse of grassland biodiversity.
- **Protection Status:**
 - Wildlife Protection Act, 1972: Schedule I
 - IUCN: Critically Endangered
 - CITES: Appendix I
- **Main Threats:**
 - **Loss of Habitat** due to development activities such as **mining, industry, wind turbines**, and the expansion of related infrastructure.
 - Due to their narrow frontal vision and large size, GIBs are vulnerable to collisions with power lines. A 2020 study by the Wildlife Institute of India found that 18 GIBs die each year due to power line strikes.
 - **Pollution:** Exposure to **pesticide-contaminated feed** poses a risk to GIBs and threatens their survival..
 - **Hunting and poaching:** GIBs are hunted for their meat, feathers, and other body parts, despite legal protections.
 - **Slow reproductive rate:** Grazing, recreation, and tourism disrupt the nesting and foraging habitats of the GIB, affecting their populations.
- **Conservation Efforts:**
 - **National Bustard Recovery Plan:** The Bustard Recovery Program focuses on the conservation of the GIB, the Lesser Florican, with other bustard species in India including the Bengal Florican and Macqueen's Bustard.
 - The recovery efforts began in 2013 and evolved into the **Bustard Recovery Project in 2016**, initially planned for five years (2016-2021) but now extended until 2033.
 - There are around 140 Great Indian Bustards and fewer than 1,000 Lesser Floricans remaining in the wild (As of 2024).
 - The project is led by the **Wildlife Institute of India and funded by the National**

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), with partner agencies.

- The main objectives of the program include conservation breeding to secure ex-situ populations, applied research to identify critical conservation areas and threats to their survival, and capacity building to strengthen protection laws and raise awareness.

Great Indian Bustard



Supreme Court constituted a seven-member committee to find a balance between conservation measures for the Great Indian Bustard (GIB) and efforts to generate renewable energy in the same regions.

Threats:

- ⚡ Collision with power transmission lines
- 🔫 Hunting
- 🏠 Habitat loss

Generally Found in:



100 cm or 1 metre
Height

15-18 kg
Weight

- State Bird of Rajasthan
- Flagship Grassland Species
- Protection Status



What is Phosphate Rock?

- **About:** It refers to **any rock containing high phosphorus content**, used mainly for agricultural fertilizers.
 - It is an **essential element** that provides **vital nutrients to plants**, supporting their growth and development.
- **Formation:** Phosphate rock is a **sedimentary rock formed millions of years ago** through the accumulation of organic matter on the ocean floor.
 - Most phosphate rock is mined using **surface mining methods**, including **open-pit, dragline, and excavator mining**.
- **Distribution:** The major reserves of phosphate rock are found in regions including **Africa, North America, Kazakhstan, and the Middle East**.
 - The largest deposits are located in Morocco, which is also a leading global producer of phosphate.
 - **In India**, phosphate rock is primarily produced in Rajasthan and Madhya Pradesh.

▪ **Uses of Phosphate Rock:**

- The most significant use of phosphate rock is in the **production of phosphate fertilizers for agriculture.**
- Some phosphate rock is used to create **calcium phosphate nutritional supplements for animals.**
- Pure phosphorus derived from phosphate rock is **used to make chemicals for industrial applications.**
- India is heavily reliant on imports for this **raw material, with approximately 90% of its phosphate rock** needs being met through imports.

PYQs:

Q1. Which one of the following groups of animals belongs to the category of endangered species? (2012)

- (a) Great Indian Bustard, Musk Deer, Red Panda and Asiatic Wild Ass.
- (b) Kashmir Stag, Cheetal, Blue Bull and Great Indian Bustard.
- (c) Snow Leopard, Swamp Deer, Rhesus Monkey and Saras (Crane)
- (d) Lion-tailed Macaque, Blue Bull, Hanuman Langur and Cheetal

Ans: A

Q2. With reference to India's Desert National Park, which of the following statements are correct? (2020)

1. It is spread over two districts.
2. There is no human habitation inside the Park.
3. It is one of the natural habitats of Great Indian Bustard.

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: C