

GHARIAL: ENVIRONMENT

NEWS: *Why gharials are endangered, how MP has emerged the leader in their conservation*

WHAT'S IN THE NEWS?

Madhya Pradesh released 10 gharials into the Chambal River at the National Chambal Gharial Sanctuary to boost their critically endangered population, highlighting ongoing conservation efforts.

Gharial Conservation in India: A Boost for Chambal River Population

WHAT'S IN THE NEWS?

The Chief Minister of Madhya Pradesh released **10 gharials** into the Chambal River at the **National Chambal Gharial Sanctuary, Morena**, to strengthen conservation efforts and increase their population.

About Gharial (*Gavialis gangeticus*)

1. General Description

- A **long-snouted, fish-eating** crocodylian species native to India.
- The name "**Gharial**" comes from the **Hindi word "Ghara"**, referring to the **bulbous snout tip** of adult males, which resembles an inverted pot.

2. Key Characteristics

- **Slender snout** lined with numerous **sharp, interlocking teeth**.
- **Males:** Grow **3-6 meters**; **Females:** Grow **2.6–4.5 meters** in length.
- **Fish-based diet:** Gharials primarily consume **fish**, making them an essential part of the river ecosystem.
- **Habitat preferences:** Prefer **sandbanks, sandbars, and river islands**, which serve as basking sites and nesting grounds.

Distribution of Gharials

1. Present Range

- Found in **freshwater river systems** across **India, Nepal, Bangladesh, and Pakistan**.
- **Largest wild population: Chambal River (India)**, a tributary of the Yamuna River.

2. Historical Decline & Regional Extinctions

- Once widespread across **South Asia**, but **likely extinct in Bhutan and Myanmar** due to habitat loss.

Ecological Importance of Gharials

- Gharials act as **natural river cleaners** by scavenging dead fish and other organic matter.
- Their presence indicates **healthy river ecosystems**.

Threats to Gharial Population

1. **Historical Threats**
 - **Overhunting** for skin, trophies, and traditional medicine.
 - **Egg collection** for human consumption.
2. **Modern Challenges**
 - **Habitat destruction** due to dams, irrigation canals, and sand mining.
 - **Pollution** from industrial and agricultural waste.
 - **Fishing nets** causing accidental entanglement and drowning.
 - **River embankments & course changes**, reducing nesting and basking sites.

Conservation Status

- **IUCN Red List: Critically Endangered**
- **CITES: Appendix I** (Strictest protection under international trade regulations)
- **Wildlife Protection Act, 1972 (India): Schedule I** (Highest level of legal protection)

Gharial Conservation Efforts in India

1. **Madhya Pradesh: The "Gharial State"**
 - **Hosts 80% of India's gharial population**, thanks to long-term conservation efforts.
2. **Gharial Conservation Programme (1975-1982)**
 - India established **16 captive breeding and release centers** and **five gharial sanctuaries**.
3. **Key Conservation Sites**
 - **National Chambal Sanctuary** (Madhya Pradesh, Rajasthan, Uttar Pradesh)
 - **Katerniaghat Sanctuary** (Uttar Pradesh)
 - **Chitwan National Park** (Nepal)
 - **Son River Sanctuary** (Madhya Pradesh)
 - **Satkosia Gorge Sanctuary** (Odisha)
4. **Ongoing Conservation Strategies**
 - **Captive breeding programs** and reintroduction into natural habitats.
 - **Community engagement** for habitat protection and awareness.
 - **Stronger river protection laws** to combat **sand mining and pollution**.
 - **Restoration of sandbanks**, which are essential for nesting.

National Chambal Gharial Sanctuary

1. **Location & Geography**
 - Situated on the Chambal River, near the tripoint of Rajasthan, Madhya Pradesh, and Uttar Pradesh.
 - Covers a 435-km stretch, one of India's cleanest river ecosystems.
2. **Key Fauna in the Sanctuary**
 - Gharial (Critically Endangered)
 - Red-crowned Roof Turtle (Critically Endangered)

- Ganges River Dolphin (Endangered)
- Mugger Crocodile
- Smooth-coated Otter
- Striped Hyena, Indian Wolf
- Indian Skimmer (80% of India's population found here)



Chambal River: The Lifeline of Gharials

Geographical Details

- **of the Yamuna River.**
- **Origin: Vindhya Range, Madhya Pradesh.**
- **Flows through: Madhya Pradesh, Rajasthan, and Uttar Pradesh** before merging with the Yamuna.

1. Major Tributaries

- **Banas, Kali Sindh, Sipra, Parbati.**

2. Unique Features

- Chambal's **lower course** is lined with a **16-km belt of badland gullies**, formed due to severe **soil erosion**.

Significance of the Gharial Release in Chambal River

- Strengthens **India's efforts in critically endangered species conservation.**
- Reinforces **Madhya Pradesh's role as the leader in gharial conservation.**
- Highlights the **importance of protected areas like National Chambal Sanctuary.**
- Ensures the **restoration of ecological balance in India's river ecosystems.**

Source: <https://indianexpress.com/article/explained/gharials-endangered-conservation-madhya-pradesh-9855973/>