

**20 – 12 – 2021**

**News:** DRDO tests Agni P missile for second time

- Second flight test of Agni Prime had proven the reliable performance of all the advanced technologies integrated into the system.

## **Agni Prime**

- Agni Prime is a **two stage canisterised solid propellant missile** with dual redundant navigation and guidance system and has a **range of up to 2,000 km.**
- Agni Prime has got the **better canisterisation technologies.**
- Canisterisation of missiles **reduces the time required to launch the missile** while improving the storage and ease of handling.

**News:** After 50 years, gharials alive and kicking in Beas Reserve

- **Beas Conservation Reserve has got a number of gharials after the reintroduction programme in 2017.**
- Since 2017, **94 gharials have been released to the Beas Conservation Reserve.**
- The gharial reintroduction in the Beas Conservation Reserve is an ambitious programme of the Punjab government.

- The reptiles were commonly sighted in the Beas River till the 1960s but later became extinct.
- In the first phase of the reintroduction project, 47 gharials were released in 2017-18 in the river in Amritsar and Tarn Taran districts.
- Later, 23 gharials were released in February 2021 on an island near Saleempur and Tahli Forest in district Hoshiarpur.
- On December 5, another set of 24 gharials was released near the Kulla Fatta forests in the reserve in Hoshiarpur district.

## Gharial

- Gharial is found in the fresh waters of northern part of India mainly in Chambal and Ghaghara rivers.
- Gharials, sometimes called gavials, are a type of Asian crocodilian distinguished by their long, thin snouts which resembles a pot (ghara in Hindi).
- Gharial prefers deep fast flowing rivers, however adult gharial have also been observed in still water branches (jheel) of rivers and in comparatively velocity-free aquatic environments of deep holes (kunds) at river bends and confluences.
- Population of Gharials indicate the presence of clean river water.

- Unlike other crocodiles, the **gharials feed on warm-blooded species** and even the largest gharial adults feed exclusively on fish, which they catch between the pointed interlocking teeth of their long jaws.
- It is also the **most aquatic of all crocodilians**, for it never moves far from the water.
- Females lay their eggs in steep, sandy river-banks.
- Historically, gharial were found in the river system of **India, Pakistan, Bangladesh and southern part of Bhutan and Nepal**. Today **they survive only in the waters of India and Nepal**.
- The surviving population can be found within the **tributaries of the Ganges river** system: Girwa (Uttar Pradesh), Son (Madhya Pradesh), Ramganga (Uttarakhand), Gandak (Bihar), Chambal (Uttar Pradesh, Madhya Pradesh and Rajasthan) and **Mahanadi** (Orissa).
- The **Rapti – Naryani River in Nepal** also hosts the Gharials.
- IUCN Status of Gharials is **Critically Endangered**.
- It is also enlisted in **Schedule I of Wildlife Protection act and Appendix I of CITES Convention**.
- A list of animals including Gharials are included in the '**list of priority species to be secured**' under the **National Mission for Clean Ganga (NMCG)**.

- Gharials are **included in the Indian Crocodile Conservation Project** as a target species along with **Saltwater and Mugger Crocodiles**.
- In comparison to Crocodiles, **Gharials are very shy and unarmful species**.
- Gharial **eggs need incubation for 70 days**, and the hatchlings stay with their mothers for several weeks or even months.
- With the introduction of gharials in 1975, **Odisha had become the only state to have all the three species of the reptile —freshwater gharials, muggers and saltwater crocodiles**. The first hatching of Gharial eggs was seen after 45 years from introduction in 2021.
- Breeding Centres of **Kukrail Gharial Rehabilitation Centre in Lucknow**, Uttar Pradesh, **National Chambal Sanctuary (Gharial Eco Park, Madhya Pradesh)** are constituted to conserve the Gharials.

### **Threats faced by Gharials**

- Gharials prefer sandbanks as suitable habitats. **Wild animals as well as humans often destroy their eggs**.
- Increased **river pollution, dam construction, massive-scale fishing operations and floods**.
- **Illegal sand mining and poaching**.

## Beas Conservation Reserve

- The Beas Conservation Reserve is a 185-kilometre stretch of the Beas River located primarily in the north-west of the State of Punjab.
- The River meanders down from the Himalayan foothills to the Harike Headworks, where its course is diverted into a number of channels.
- The Beas river is dotted with islands, sand bars and braided channels creating a complex environment supporting substantial biodiversity.
- More than 500 species of birds are documented along this stretch, along with more than 90 fish species.
- The Reserve also hosts the only known population in India of the endangered Indus river dolphin (*Platanista gangetica minor*).
- Further threatened species include the endangered masheer (*Tor putitora*) and hog deer (*Axis porcinus*) as well as the vulnerable smooth-coated otter (*Lutrogale perspicillata*).
- In 2017, a programme was initiated to re-introduce the critically endangered gharial with 47 individuals released into the river 30 years after their disappearance. As of December 2021, 94 gharials have been released to the reserve.
- Major threats include urban and domestic pollution as well as impacts of agriculture along most of the River's course.

**News:** Indian desert cat spotted in Panna Tiger Reserve

- Recently, an Indian desert cat has been spotted for the first time in Madhya Pradesh's Panna Tiger Reserve.

## **Indian Desert Cat**

- As the name suggests, this **cat is found in deserts and can survive without water.**
- The toes of the species have **cushion like hair which help it balance the fluctuating desert temperatures.**

## **Panna National Park**

- Panna National Park is located in **Vindhyan Hills in Northern Madhya Pradesh.**  
Landscape of the reserve is characterised with **Table Top Topography**, with **two plateaus running parallel to each other from south-west to north-easterly direction.**
- The area is having a concentration of **Diamond mines.**
- It is also designated as a **Tiger reserve.**
- Species protected include **Tiger, Leopard, Nilgai and Sambar.**
- Panna Tiger Reserve is currently in news because of **Ken-Betwa River Linking Project.**

- Ken River flows through this reserve in South – North direction and creates beautiful waterfalls on its way to the valley. The biodiversity in this national park is extremely rich.
- It consists of fragile though dynamic dry deciduous forest.
- It is characterised by extensive plateaus and gorges formed by the river Ken and it links the eastern and western populations of wild animals through the NE-SW running Vindhyan Hill ranges.
- Recently it has been included in the list of UNESCO Network of Biosphere Reserves.
- Recently, Panna national park was accredited with Conservation Assured | Tiger Standards (CA|TS) for its excellence in Tiger conservation.