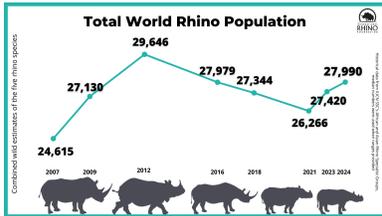




23 Sep 2024

### National and International News

#### World Rhino Day



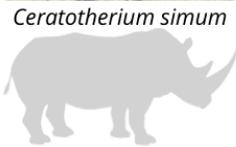
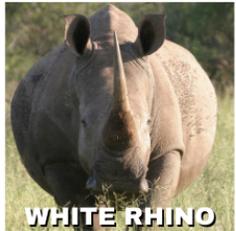
#### Context:

- Celebrated on **September 22** to raise awareness about rhinoceros conservation.

#### Key points:

- Species all over the World
  - White Rhino
  - Black Rhino
  - Greater One-Horned
  - Javan
  - Sumatran Rhino
- With all five species combined, there are just under **28,000 rhinos left in the world.**
- **India and Nepal** have estimated over 4,014 rhinos, with major populations residing in **Kaziranga National Park.**
- The greatest threats to rhinos are **poaching, habitat loss**, and for some species, isolated small populations unable to reproduce.

## STATE OF THE RHINO 2024



IUCN Estimated Population:

**17,464**

IUCN Status:

**NEAR THREATENED**



IUCN Estimated Population:

**4,014**

IUCN Status:

**VULNERABLE**



IUCN Estimated Population:

**6,421**

IUCN Status:

**CRITICALLY ENDANGERED**

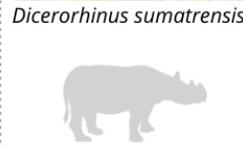


Estimated Population:

**~50**

IUCN Status:

**CRITICALLY ENDANGERED**



IUCN Estimated Population:

**34-47**

IUCN Status:

**CRITICALLY ENDANGERED**

rhinos.org

Fast Track Immigration Trusted Traveller

Context:



## Daily Current Affairs Encyclopedia

<p><b>Programme (FTI-TTP)</b></p>	<ul style="list-style-type: none"> <li>In September 2024, the MHA expanded this initiative to <b>21 major airports</b> across India, including key airports in Mumbai, Chennai, Kolkata, Bengaluru, Hyderabad, Cochin, and Ahmedabad.</li> </ul> <p><b>About:</b></p> <ul style="list-style-type: none"> <li>The <b>Union Ministry of Home Affairs (MHA)</b> has launched the <b>Fast-Track Immigration-Trusted Traveller Programme (FTI-TTP)</b> to enhance the immigration process for Indian nationals and Overseas Citizen of India (OCI) cardholders.</li> <li>Initially implemented at <b>Delhi's Indira Gandhi International (IGI) Airport</b> in June 2024, the programme aims to provide faster, more efficient, and secure immigration clearances by allowing eligible travelers to use e-gates.</li> <li>This allows them to bypass regular immigration queues, providing a smoother travel experience.</li> <li>This programme is one of the key initiatives introduced during the first 100 days of the <b>Modi 3.0 government</b>, reflecting its focus on technological advancements and infrastructure development in the aviation sector.</li> </ul>
<p><b>Criticality of a Nuclear Reactor</b></p>	<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>The third indigenous <b>700 MWe Pressurised Heavy Water Reactor (PHWR) at Rajasthan Atomic Power Project (RAPP)</b>, Rawatbhata, achieved criticality on September 19, 2024.</li> </ul> <p><b>Key points:</b></p> <ul style="list-style-type: none"> <li>Criticality is a significant phase indicating the <b>start of a controlled fission chain reaction</b>, marking the end of construction and the <b>start of operational tests</b>.</li> </ul> <p><b>Nuclear Reactor:</b></p> <ul style="list-style-type: none"> <li>A nuclear reactor is a critical component of a nuclear power plant, where <b>controlled nuclear fission reactions occur to produce energy</b>.</li> <li>Nuclear reactors operate on the principle of nuclear fission, where <b>heavy atomic nuclei (commonly uranium-235 or plutonium-239)</b> split into smaller fragments upon absorbing a neutron.</li> </ul> <p><b>Nuclear Fission:</b></p> <ul style="list-style-type: none"> <li>Nuclear fission is the process by which a heavy atomic nucleus, such as <b>uranium-235 or plutonium-239</b>, splits into two smaller nuclei along with the release of a significant amount of energy.</li> <li>This process is fundamental to both nuclear power generation and nuclear weapons.</li> </ul>



### Exercise AIKYA

**Context:**

- "EXERCISE AIKYA" is a significant **disaster management exercise** organized by the **National Disaster Management Authority (NDMA)** in collaboration with the **Southern Command of the Indian Army** and the **Tamil Nadu State Disaster Management Authority (TNSDMA)**.

**About:**

- "AIKYA" means "Oneness" in **Tamil**, reflecting the exercise's goal to unify India's disaster management efforts.

**Focus Areas:**

- Simulated emergency situations to assess roles and responsibilities.
- Discussed recent disaster trends and lessons learned from recent operations.
- Addressed disasters such as tsunamis, landslides, floods, cyclones, industrial incidents, and forest fires.

### Europa Clipper Mission



**Context:**

- NASA's Europa Clipper Mission is scheduled for launch on **October 10, 2024**.

**About:**

- The mission aims to explore **Jupiter's icy moon Europa for potential signs of habitability**.
- Europa is considered one of the most promising locations to find conditions for life beyond Earth.

**Key Focus:**

- The spacecraft will investigate whether Europa's icy surface hides a subsurface ocean, which may harbour life-supporting conditions.
- The mission will use scientific instruments to estimate the **thickness of Europa's ice shell and study its surface for geological activity**.

**Launch Details:**

- Launch vehicle:** SpaceX Falcon Heavy from Kennedy Space Center, Florida.
- Distance to cover:** 1.8 billion miles (2.9 billion km).
- The spacecraft will arrive at **Jupiter by April 2030**.

**Challenges:**

- Intense radiation** around Jupiter is a major challenge.
- The spacecraft will face radiation levels equivalent to **millions of chest X-rays during each flyby**.
- The mission will follow a **trajectory designed to**



## Daily Current Affairs Encyclopedia

minimize radiation exposure.

### Duration and Scientific Goals:

- The mission will last **4 years and conduct 49 flybys of Europa.**
- It will search for organic compounds and study the moon's environment but will not directly search for life.



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