NEXT IAS

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 24-09-2025

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SEVEN YEARS OF AYUSHMAN BHARAT

Context

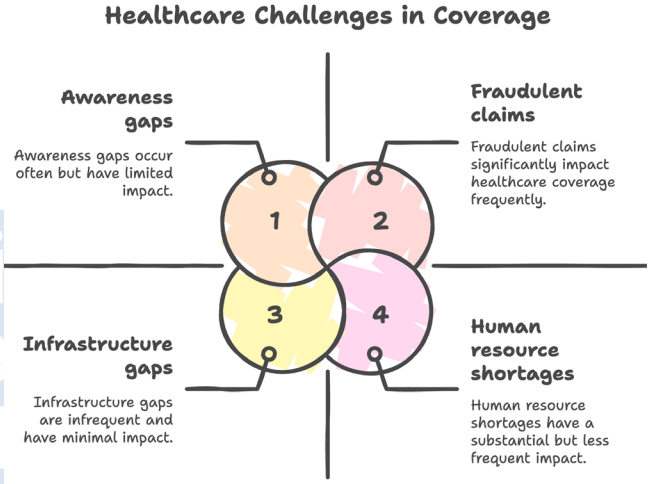
- Recently, the **Ayushman Bharat,** the **world's largest government-funded health assurance scheme**, completed its seven years.

About the Ayushman Bharat

- It is a flagship health initiative, emerged from the **National Health Policy 2017,** and was launched in **September 2018 from Ranchi, Jharkhand.**
- It aims **to achieve Universal Health Coverage (UHC)** through **two complementary components:**
  - **Pradhan Mantri Jan Arogya Yojana (PM-JAY):** It provides ₹5 lakh per family per year **for secondary and tertiary hospitalization**.
    - It covers over 10 crore poor and vulnerable families (approx. 55 crore beneficiaries, i.e. **about 40% of India's population** based on SECC 2011).
    - It offers cashless and paperless access to services at public and empanelled private hospitals across India.
    - Benefits are **portable nationwide**, meaning beneficiaries can access services anywhere in the country.
  - **Ayushman Bharat Health and Wellness Centres (AB-HWCs):** It aims to transform 1.5 lakh sub-centres and primary health centres into HWCs.
    - It focuses on comprehensive primary care, including screening for non-communicable diseases, maternal and child health services, and essential medicines.
    - **First Ayushman Arogya Mandir** inaugurated in **Bijapur, Chhattisgarh.**

Major Achievements in Last Seven Years

- **Impact at Scale:**
  - Over 55 crore beneficiaries have been reached since inception;
  - More than 10.3 crore hospital admissions authorized, translating to ₹1.48 lakh crore in cashless care;
  - 1.8 lakh Ayushman Arogya Mandirs operate nationwide, delivering preventive and promotive healthcare;
  - **Government health expenditure rose** from 29% to 48%, while **out-of-pocket cost dropped** from 63% to 39%.
- **Expanding the Beneficiary Base:**
  - **2021**: Ayushman Bharat Digital Mission (ABDM) was launched as the **digital backbone of Ayushman Bharat,** enabling the creation of a **unique Ayushman Bharat Health Account (ABHA) IDs** for every citizen.
  - **2022**: Scheme expanded to cover 12 crore families;
  - **2024**: ASHA workers, Anganwadi workers, and their families were added;
  - **October 2024:** Senior citizens above 70 years gained universal coverage via the **Ayushman Vay Vandana Card;**
  - Nearly 1 crore gig and platform workers are now being integrated into the scheme;



Looking Ahead

- As Ayushman Bharat enters its eighth year, the focus shifts to:
  - Strengthening digital health infrastructure;
  - Enhancing quality assurance through **Indian Public Health Standards (IPHS)** and **National Quality Assurance Standards (NQAS);**
  - Expanding preventive care and lifestyle disease management;
  - Improving state-level fund absorption and implementation capacity.

Source: News On AIR

VISAKHAPATNAM DECLARATION ON E-GOVERNANCE

Context

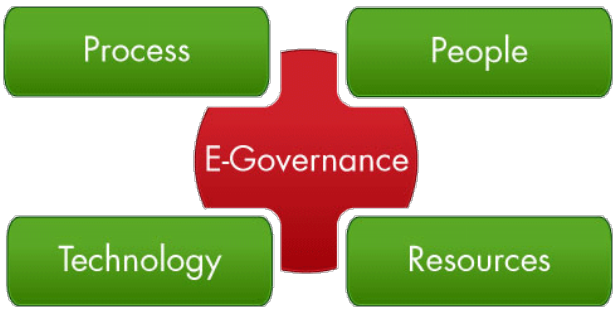
- The **Visakhapatnam Declaration on E-Governance**, adopted at the **28th National Conference on e-Governance** held in Visakhapatnam.

Key Highlights

- **Co-hosted By:** Department of Administrative Reforms and Public Grievances (DARPG), the Ministry of Electronics and IT (MeitY), and the Government of Andhra Pradesh.
- **Theme:** "Viksit Bharat: Civil Service and Digital Transformation" with a vision of "Minimum Government, Maximum Governance."
- **Digital Inclusion:** Focus on extending digital governance to underserved and connectivity-challenged regions such as the North-East and Ladakh through expanding mandatory e-services under the NeSDA (National e-Governance Services Delivery Assessment) framework.
- **AI Platforms**: Scaling AI-driven initiatives such as Digital India BHASHINI (multilingual communications), Digi Yatra (airport check-ins), and NADRES V2 (agricultural disaster risk reduction), with a focus on ethical, transparent AI use.
- **Regional Innovation Models:** Plans to replicate grassroots digital governance successes from places like Rohini (Maharashtra) and scale digital Panchayat models nationwide.
- **Agriculture Support:** Accelerating the rollout of the National Agri Stack for farmers' access to credit, advisories, and markets, promoting climate-smart and sustainable farming practices.
- **Civil Service Reform**: Strengthening civil services with digital skills and agile, data-driven governance frameworks, endorsing a whole-of-government approach.
- **Visakhapatnam as IT Hub:** Supports Andhra Pradesh's vision of developing Visakhapatnam as a premier IT and innovation hub with infrastructure and special IT zones.

What is e-Governance?

- **e-Governance in India** means the use of Information and Communication Technology (ICT) by the government to deliver services, exchange information, and interact with citizens.



Benefits

- **Efficiency:** Faster, cheaper, paperless transactions.
- **Transparency & Accountability:** Reduced corruption, direct monitoring.
- **Inclusivity:** Services to rural/remote areas via Common Services Centres (CSCs).
- **Citizen Empowerment:** 24x7 access, participatory governance.
- **Economic Growth:** Boosts startups, IT industry, and digital economy.

Key Challenges to e-Governance

- **Implementation disparity:** Some states or local governments lag in digital capacity, infrastructure, funding, or in adopting the central e-governance frameworks.
- **Digital divide:** Access to internet / smartphone and digital literacy remain bottlenecks especially in remote, tribal or underdeveloped districts.
- **Data protection, security & trust:** As scale increases, vulnerabilities, data leaks, misuse risk rise. Ensuring confidentiality, consent, and legal safeguards is critical.
- **Sustainability and capacity-building:** Maintaining and upgrading systems, training personnel, continuous feedback loops, user support are resource-intensive and ongoing tasks.
- **Governance vs execution gap:** Even when policy is strong, translating it on ground often faces administrative inertia, lack of technical staff, or legacy systems.

Key Initiatives

- **Connectivity and Infrastructure:** Over the years, Digital India has built strong digital infrastructure across the country.
- **Aadhaar & DBT:** Aadhaar-enabled e-KYC simplified verification, reduced paperwork, and enhanced transparency. DBT ensured direct transfer of welfare benefits, curbing leakages.
- **Karmayogi Bharat:** Initiative aims to nurture a future-ready civil service by equipping officials with the right Attitude, Skills, and Knowledge (ASK) to deliver efficient and citizen-centric governance.
  - It has 1.26 crore+ users, 3000 courses, and 3.8 crore+ certificates issued as of July 2025.
- **DigiLocker**: Aims at 'Digital Empowerment' of citizens by providing access to authentic digital documents in the citizens' digital document wallet.
- **UMANG:** Provides a single platform for all Indian Citizens to access pan-India e-Gov services ranging from Central to Local Government bodies.

Source: PIB

IMPACT OF U.S. TARIFFS ON JEWELLERY SECTOR

In News

- India's diamond and jewellery sector has been severely impacted by U.S. tariffs of 50% on cut and polished diamonds and 50-57% on studded and non-studded jewellery, disrupting decades of established trade.

About

- The **U.S.** is **India's largest diamond importer**, with exports worth ₹46,000 crore in diamonds and ₹23,000 crore in studded gold jewellery in 2024-25.
- The **cut and polished diamond industry** employs 8.2 lakh skilled workers.

Issues and Challenges

- India's gem and jewellery export industry is facing a major challenge due to steep U.S. tariffs, which make Indian products less competitive compared to rivals like Turkey, Vietnam, and Thailand.
- India risks losing its strategic position as a top supplier, as trade could shift to low-tariff countries such as Mexico, Canada, UAE, Oman, and Turkey.
- Industry experts warn that ongoing issues like high gold prices, geopolitical tensions, and unstable metal markets add to the uncertainty.

Various Demands

- The industry seeks urgent government intervention, including short-term policy reliefs like extending export obligation periods from 90 to 270 days, allowing SEZs to sell in the domestic market without import duty, and permitting reverse job work to keep factories operational and workers employed.
    - Additionally, monetary incentives such as interest subvention, export subsidies, worker aid (loan restructuring, healthcare), and marketing support for exploring new markets are demanded.

Governments Steps

- The Government has undertaken various measures recently to promote investment and upgrade technology and skills to promote **'Brand India' in the international market.**
- The Government has permitted 100**% FDI in the sector under the automatic route**, wherein the foreign investor or the Indian company do not require any prior approval from the Reserve Bank or the Government of India.
- The Indian Government also signed a **Comprehensive Economic Partnership Agreement (CEPA) with the United Arab Emirates (UAE)** in March 2022.
- In **Union Budget 2025-26,** the customs tariff on jewellery (HSN code 7113) was reduced from 25% to 20% and on platinum findings from 25% to 5%, making jewellery more affordable and boosting domestic demand.

Conclusion and Way Forward

- India's Gems & Jewellery sector is poised for strong growth, driven by the rise of large retailers and organised brands that offer greater product variety and design options.
- Relaxed gold import restrictions, improved gold availability, reintroduced low-cost gold loans, and stabilising gold prices are expected to boost volume growth in the short to medium term.
- While domestic demand during festive and wedding seasons may offer some relief, the export sector's future depends heavily on India-U.S. trade negotiations and timely government action to prevent long-term damage.

Source :TH

SST-BHARAT MARKS INDIA'S ENTRY INTO THE GLOBAL FUSION RACE

Context

- Researchers at the Institute for Plasma Research (IPR) in Gandhinagar have laid out a **roadmap for India to achieve fusion power.**

About

- The researchers envisage developing India's first fusion electricity generator, called the **Steady-state Superconducting Tokamak-Bharat (SST-Bharat),** with a power output 5x the input.
- It will be a fusion-fission hybrid reactor with **100 MW** of the total 130 MW provided by fission. The estimated construction cost is Rs 25,000 crore.
- **By 2060**, the team aims to commission a 250 MW demonstration reactor with an **output-to-input ratio (Q)** of **20.**

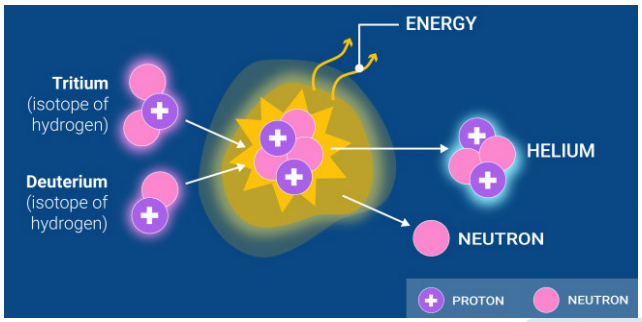
What is Nuclear Energy?

- Nuclear energy is the **energy released during nuclear reactions,** either through fission (splitting of atomic nuclei) or fusion (merging of atomic nuclei).
- **In nuclear fission,** heavy atomic nuclei, such as those of uranium or plutonium, are split into lighter nuclei, releasing a large amount of energy.

- This process is utilized in nuclear power plants to generate electricity.

Process of Nuclear fusion

- It is a process in which **two light atomic nuclei combine to form a heavier nucleus**, releasing a significant amount of energy in the process.
  - This process is the same as what powers stars, including our sun.
- The most common fusion reaction involves the isotopes of hydrogen: **deuterium and tritium.**
- When these isotopes fuse, they form helium and release a neutron, along with a large amount of energy.



Significance of Fusion energy

- **Clean source of energy:** Nuclear fusion, like nuclear fission, does not emit carbon dioxide or other greenhouse gases into the atmosphere.
- **High energy efficiency:** Fusion can generate nearly four times more energy per kilogram of fuel than fission and almost four million times more energy than burning coal or oil, making it far more efficient than conventional energy sources.
- **Safer to Use:** Future fusion reactors are also intrinsically safe and are not expected to produce high activity or long-lived nuclear waste.
  - Furthermore, as the fusion process is difficult to start and maintain, there is no risk of a runaway reaction and meltdown.
- **Abundant and accessible fuel supply:** Fusion fuel is plentiful and widely available.
  - **Deuterium** can be extracted inexpensively from seawater.
  - **Tritium** can be generated from the interaction of fusion-produced neutrons with naturally abundant lithium.

What are the Challenges?

- **Extreme conditions requirement:** Thermonuclear fusion requires extremely high temperatures and pressures, typically in the range of millions of degrees Celsius, to overcome the electrostatic repulsion between nuclei.
- **Sustaining the reaction:** Once initiated, the reaction must be self-sustaining (burning plasma).
  - Current laboratory experiments achieve fusion only for a few seconds, making it difficult to sustain such extreme conditions for prolonged periods.
- **Competition with other energy sources:** Fusion will need to compete with nuclear fission, solar, and wind energy, all of which are currently more cost-effective and scalable.
- **Funding limitations in India:** India's fusion research budget remains modest compared to the US, EU, and China.

Current Progress with Fusion Energy

- **Indian Scenario: SST-1 (Institute for Plasma Research - IPR):** This superconducting tokamak has achieved plasma confinement for approximately **650 milliseconds.**
  - SST-Bharat is envisioned as the next step beyond SST-1, aiming to move from experimental research to actual electricity generation.
- **Global progress benchmarks include:**
  - **France's WEST tokamak** set a world record by sustaining a stable hydrogen plasma for **over 22 minutes in** February **2025.**
  - **China's EAST Tokamak:** China maintained plasma at a temperature of **100 million°C for 1,066 seconds** in the Experimental Advanced Superconducting Tokamak (EAST), demonstrating remarkable progress in sustaining high-temperature plasma.
  - **ITER (International Thermonuclear Experimental Reactor):** ITER aims to achieve a Q of 10, meaning it will produce ten times the energy it consumes, a critical step towards demonstrating the feasibility of fusion power.

Way Ahead

- Fusion research should be pursued not only to ensure long-term energy security but also to drive strategic technological advancements, including superconducting materials, high-temperature engineering, and plasma modelling.
- **The 2060 target** reflects a cautious but deliberate approach, allowing India to gradually develop the necessary expertise, infrastructure, and technologies to eventually achieve practical and sustainable fusion energy.

Source: TH

INDIA TO SUBMIT UPDATED CARBON-REDUCTION TARGETS BY THE BEGINNING OF COP30

Context

- India will submit its updated **Nationally Determined Contributions (NDCs)** around the commencement of **U.N. Climate Change Conference COP 30** in Brazil in November.

About NDCs

- The NDCs are **renewable-energy adoption goals** set by a country as part of **being a signatory to the Paris Agreement.**
  - Countries **must regulate their fossil fuel consumption** to keep the globe from heating **2°C,** and as far as possible, **1.5°C** above that in pre-industrial times.
- Countries are required to update their NDCs **every five years.**
- **India last updated its NDCs in 2022:**
  - It committed to reduce the emissions **intensity of its GDP by 45% of 2005** levels;
  - source **half of its electric power** capacity from **non-fossil fuel sources;**
  - and create a **carbon sink** of at least two billion tonnes — all three by 2030.

About UN Climate Change Conference

- **The United Nations Climate Change Conferences,** often referred to as **COP (Conference of the Parties),** are international gatherings where countries come together to discuss and **negotiate global efforts to address climate change.**
- These conferences are organized under **the United Nations Framework Convention on Climate Change (UNFCCC),** an international treaty came into force in **1994** with the objective of stabilizing greenhouse gas concentrations in the atmosphere.
- The COP meetings are held **annually**, and each conference is numbered sequentially.
- The conferences provide a platform for **countries to assess progress in dealing with climate change, negotiate agreements, and make decisions on a wide range of issues related to climate action.**

Progress India Made

- Emissions intensity of GDP refers to the **amount of carbon emitted per unit of GDP** and does not mean a reduction in net emissions.
- **As of 2023**, India reported to the United Nations climate-governing body that the **emissions intensity of its GDP had been reduced by 33%** between **2005 and 2019.**
- By June 2025, India reported installing **at least 50% of its power capacity from non-fossil fuel sources.**

Targets for 2035

- **The updated NDCs, or NDC 3.0** as they are called, is expected to reflect the **degree of emissions reductions by 2035.**
- **So far, only 30 of the 190-odd countries have submitted their NDCs** though it is not uncommon for countries to submit their NDCs just ahead of the annual climate talks.

Expected NDCs

- The EU is expected to **submit its NDCs ahead of COP30** with an **indicative 2035 target** in **a range from 66.25% and 72.5% reduction, compared to 1990 levels**.
- **Australia** this month **updated its NDCs** aimed **to cut emissions 62%-70% of 2005 levels by 2035.**
- **The United States has exited the Paris Agreement** and it remains to be seen if China will announce ambitious NDCs ahead of COP 30.
- India is also **expected to operationalise the India Carbon Market by 2026** — under which 13 major sectors will be given mandatory emission-intensity targets — and can trade their resulting savings via emission reduction certificates.

Source: TH

NEWS IN SHORT

MOHENJODARO DANCING GIRL

Context

- A professor from Haryana, was booked for allegedly stealing a replica of the Mohenjodaro 'Dancing Girl' bronze figurine from the National Museum in Delhi.

About

- The "Dancing Girl" is a **4,500-year-old bronze statuette** from the **Indus Valley Civilization.**
- **Discovery:** Unearthed in **1926** at **Mohenjo-daro** (present-day Pakistan) by archaeologist **Ernest Mackay.**
- **Material and Technique:** Made of bronze using the lost-wax casting technique, the statuette reflects the advanced metallurgical knowledge of the Harappans.

- The statue is around 10.5 centimetres tall and is adorned with a **necklace** and a large number of **bangles stacked on her arms.**

Source: IE

TIRAH VALLEY

Context

- Pakistan's air force launched eight LS-6 precision-guided glide bombs on villages in the Tirah Valley of Khyber Pakhtunkhwa.

About Tirah Valley

- **Location:** The Tirah Valley is a mountainous and strategically important region in **Khyber Pakhtunkhwa,** Pakistan, located near the **Pakistan–Afghanistan border.**
  - It lies between the **Khyber Pass and the Khanki Valley** and stretches across the Khyber and Orakzai districts.
- **Tribal Inhabitants:** The valley is primarily inhabited by **Afridi and Orakzai** Pashtun tribes.
- **Terrain:** The landscape is rugged and mountainous, with several sub-valleys, including **Maidan, Rajgul, Waran, Bara, and Mastura.**
- **Militancy and displacement:** After the U.S. invasion of Afghanistan in 2001, the valley became a battleground between state forces and various militant groups.

Source: AIR

VIKSIT BHARAT BUILDATHON 2025

Context

- The Union Education Ministry has launched the **Viksit Bharat Buildathon 2025**, a nationwide virtual innovation contest for school students, with a prize pool of ₹1 crore.

About

- **Participants:** Open to students from **Classes 6 to 12** across six lakh government and private schools.
- **Objective:** Encourage students to develop innovative ideas and products focusing on **self-reliance, indigenous knowledge, and sustainability**, contributing to India's vision of **Viksit Bharat by 2047**.
- **Organisers:** Department of School Education & Literacy, in collaboration with Atal Innovation Mission (NITI Aayog) and AICTE.
- **Background:** Builds upon the success of **School Innovation Marathon 2024**, which led to programmes like the **Student Innovator Programme (SIP)** and **Student Entrepreneurship Programme (SEP)**, along with patents and startup ventures from the Atal Tinkering Labs.

Source: TH

HUGE SCOPE FOR INDIAN TEA SECTOR

Context

- The Executive Director of the International Tea Committee has said that India can become the superpower of the tea industry.

About

- India is the **second-largest producer and consumer of tea** and the third-largest exporter.
- Of the total global tea output of 7.074 billion kg and consumption of 6.97 billion kg in 2024, **India produced 1.303 billion kg and consumed 1.22 billion kg**.

India's Tea Industry

- **Types of tea exported:** Primarily black tea (96%), with small quantities of regular, green, herbal, masala, and lemon tea.
- **India's Export destinations:** Over 25 countries, including UAE, Iraq, Iran, Russia, US, and UK.
- **Prominent tea regions:** Assam (Assam Valley, Cachar) and West Bengal (Dooars, Terai, Darjeeling).

- **Global reputation:** Indian teas, especially Assam, Darjeeling, and Nilgiri, are renowned for their quality.

Tea Board of India

- It was set up as a **statutory body in 1954** under the **Tea Act, 1953.**
- It was established for the purposes of **regulating the Indian tea industry and protecting the interests of tea producers in India.**
  - All teas produced in the tea growing areas of India are **administered by the Tea Board.**
- The Board consists of **32 Members,** including Chairman and Deputy Chairman appointed by the Government of India representing different sections of the Tea industry.
- The Board's **Head Office is situated in Kolkata**.

Source: TH

OJU HYDROELECTRIC PROJECT

Context

- An expert panel of the Union Environment Ministry has recommended environmental clearance for the **2,220 MW Oju hydroelectric project.**

About

- **Proposed on** the **Subansiri river** in Taksing near the China border in **Arunachal Pradesh.**
- This will be **India's third largest hydel project.**
- **The other hydro projects planned in the Subansiri basin** are Niare, Naba, Nalo, Dengser, upper Subansiri and Lower Subansiri.
- The main power plant will have a capacity of **2,100 MW while the dam-toe plant will have a capacity of 120MW.**

Source: IE

ASTRONOMERS DETECT QUASI-MOON NEAR EARTH

Context

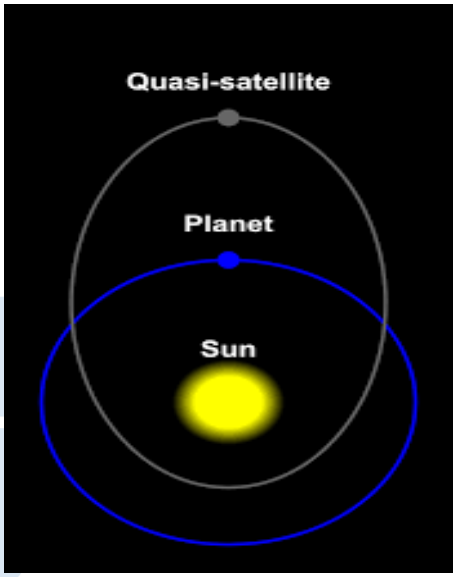
- Astronomers have recently identified **2025 PN7,** a tiny asteroid that is a "quasi-moon" of Earth and has been following our planet for about **60 years.**

About 2025 PN7

- The asteroid is approximately **62 feet** in diameter and was observed by the **Pan-STARRS observatory in Hawaii.**
- The object follows a near-Earth orbital path around the Sun, maintaining a distance that ranges from 2.8 million miles to 37 million miles from Earth.

About Quasi-Moons

- A quasi-moon **differs fundamentally from a natural satellite** such as Earth's Moon.
- While **Earth's Moon is gravitationally bound to the planet** and revolves directly around it, a **quasi-moon is gravitationally bound to the Sun.**
- The orbit of a quasi-moon is synchronized with Earth's orbital trajectory, creating the observational impression that it is a companion of the planet.



Source: CNN

MISSION MAUSAM

In News

- The National Centre for Medium Range Weather Forecasting (NCMRWF) and New Space India Limited (NSIL) signed an MoU to set up two **Direct Broadcast Network (DBNet) stations in Delhi/NCR** and Chennai under the **Mission Mausam project.**

Direct Broadcast Network (DBNet)

- It is a **global operational framework** designed for the real-time acquisition of satellite data from Low Earth Orbit (LEO) satellites.
- It plays a critical role in **Numerical Weather Prediction (NWP)** and supports a wide range of applications, including weather forecasting, cyclone monitoring, and climate research.
- It ensures rapid data availability by directly receiving and processing satellite signals within minutes of transmission.

- It aims to improve the accuracy and timeliness of weather forecasts and related services.

Mission Mausam

- It was approved by the Union Cabinet in September 2024.
- It is a ₹2,000 crore initiative by the Ministry of Earth Sciences to make India **"Weather Ready" and "Climate Smart."**
- It is aimed at enhancing weather and climate forecasting, especially for sectors like agriculture and disaster management.
- It leverages advanced technologies like high-resolution models and supercomputing.
- It promotes collaboration with national and global research bodies to position India as a global leader in weather and climate science.

Source :PIB

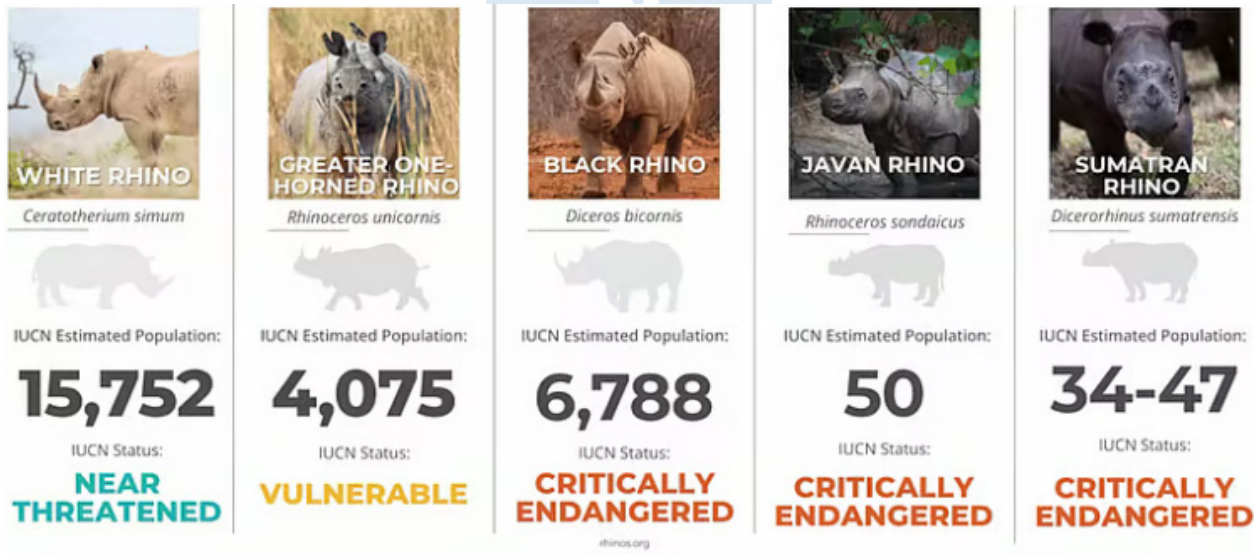
STATE OF THE RHINO REPORT

In News

- Rhino populations have stabilised at around 27,000 globally, down from 500,000 a century ago, according to the latest State of the Rhino report by the International Rhino Foundation.

Rhinoceroses

- They are large, herbivorous mammals that can be identified by their characteristic horned snouts.
- **Types :** There are five rhino species spread throughout Asia and Africa.
  - These include two African rhino species - black and white rhinos.
  - The remaining three are Asian rhino species, which include greater one–horned, Sumatran and Javan rhinos.
- **Habitats:** Tropical and subtropical grasslands, savannahs and shrublands, tropical moist forests, deserts and shrublands.
- **Threats:** Poaching, habitat loss, population fragmentation, and climate change further endanger rhinos.
- **Protection status :**



Source :DTE

PRODUCTION GAP REPORT 2025

Context

- The 2025 Production Gap Report, presents a stark picture of the growing disconnect between climate commitments and governments' fossil fuel production plans.
  - The report is produced by **Stockholm Environment Institute (SEI), Climate Analytics**, and the **International Institute for Sustainable Development (IISD).**

Key Findings

- **Alarming Production Gaps:** Planned fossil fuel production in 2030 is projected to exceed 1.5°C-aligned levels by 120% and 2°C levels by 77%.
  - Coal shows the largest misalignment, with 2030 output expected to be **500%** above 1.5°C pathways and **330%** above 2°C benchmarks.

- **Countries Driving Expansion:** Major producers ramping up extraction include China, the United States, Saudi Arabia, Brazil, and Nigeria.
- **Fossil fuel production** has grown instead of peaking in the early 2020s, locking in new infrastructure and delaying urgent cuts.
    - **To align with the Paris Agreement**, coal use must be nearly phased out by **2040,** while oil and gas production must fall by around **75 per cent** by **2050 compared to 2020 levels.**
- **Call for Transition:** The report stresses policies for a **"just transition"** to support workers and communities dependent on fossil fuels.
- **Legal and Expert Warnings:** The International Court of Justice ruled that failure to curb fossil fuel expansion could constitute an internationally wrongful act.

Source: DTE

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