

January - 17

TNPSC BITS

- ❖ 'Chennai Sangamam - Namma Oor Thiruvizha', the annual cultural extravaganza was organised in Chennai during the Pongal season.
- ❖ The Madras High Court held that, the right to participate in the funeral ceremony of the spouse/parent/children of prisoner will fall within the ambit of Article 25 of the Constitution of India.
- ❖ The 25th National Conference of Chairpersons of State Public Service Commissions was held at Bengaluru.
- ❖ The Srinagar Meteorology Centre was acknowledged as a Centennial Centre by the World Meteorological Organization (WMO).
- ❖ Nvidia released its Jetson Orin Nano Super, a new compact artificial intelligence (AI) supercomputer recently.

NATIONAL

Mission Mausam 2025



MISSION MAUSAM

'Mission Mausam' to create a more weather-ready and climate-smart Bharat with an outlay of Rs.2,000 crore over 2 years

BENEFITS

- ❖ A multi-faceted and transformative initiative to tremendously boost India's weather and climate-related science, research and services
- ❖ Will help better equip stakeholders, including citizens and last-mile users, in tackling extreme weather events and the impacts of climate change
- ❖ Mission focus to include improving observations and understanding for providing highly accurate and timely weather and climate information across temporal and spatial scales
- ❖ Mission to be implemented by 3 institutes of the Ministry of Earth Sciences:
 - India Meteorological Department
 - Indian Institute of Tropical Meteorology
 - National Centre for Medium-Range Weather Forecasting

- ❖ The 'Mission Mausam' was inaugurated to transforming India into a weather-ready and climate-smart nation.
- ❖ The launch coincides with the 150th Foundation Day celebrations of the India Meteorological Department (IMD).

- ❖ It aims to tackle the growing impact of climate change on weather patterns.
- ❖ The mission focuses on improving short and medium-range forecasts and boosting preparedness for extreme weather events.
- ❖ It enhances the forecast accuracy by 5-10 per cent and extend predictions to panchayat levels with a 10–15-day lead time.

Nag Mk-2 test

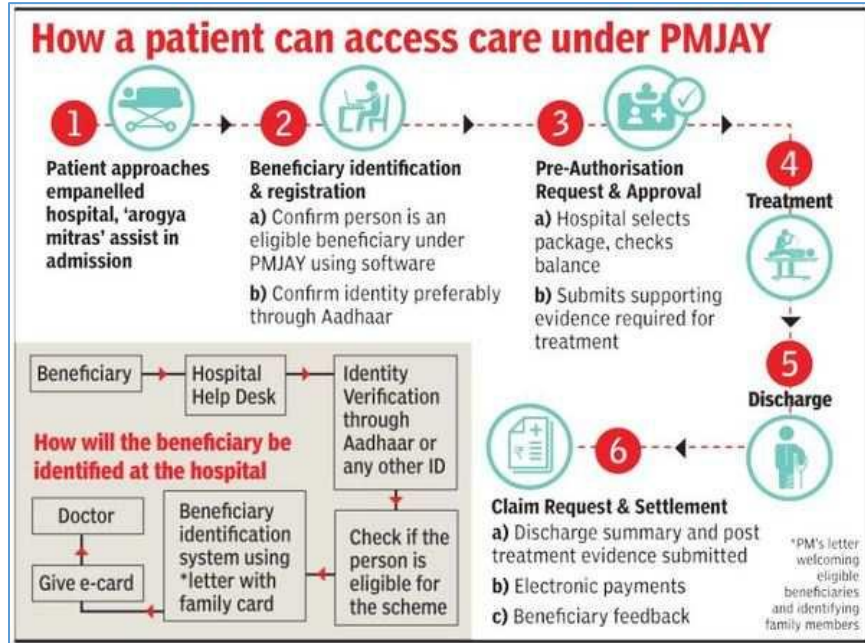
- ❖ DRDO has successfully conducted field evaluation trials of India's indigenous Anti-Tank Missile - Nag Mark 2.
- ❖ Nag Mark-2 is the third-generation Anti-Tank Fire-and-Forget Guided Missile.
- ❖ Its fire-and-forget technology enables the operators to lock onto targets before launch, ensuring precision strikes even in complex battlefield scenarios.



Ayushman Bharat - Odisha

- ❖ Odisha has become the 34th state to implement the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY).
- ❖ Till date, Odisha, along with two other states, had not implemented this scheme.
- ❖ Ayushman Bharat comprises two inter-related schemes.
- ❖ The first is the Health and Wellness Center, and the second is the Pradhan Mantri Jan Arogya Yojana.
- ❖ The scheme covers pre-hospitalisation diagnostic costs three days before admission and post-hospitalisation medication costs for up to 15 days.

- ❖ Under this scheme, approximately 2,000 treatment procedures are included in 27 types of speciality medical departments, including major surgeries.



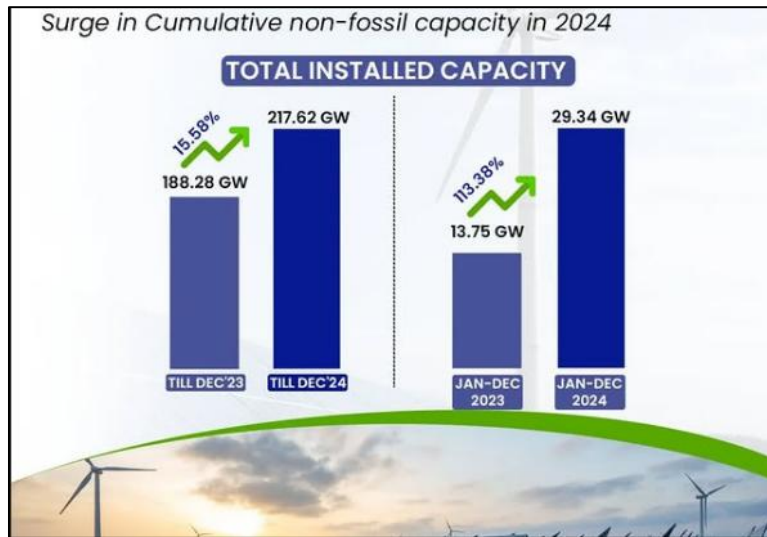
Atomic Energy Commission 2025



- ❖ The government has re-constituted the Atomic Energy Commission (AEC) to include T V Somanathan and Manoj Govil.

- ❖ The reconstituted AEC has Ajit Kumar Mohanty, Secretary, Department of Atomic Energy, as its chairman.
- ❖ The commission has National Security Adviser Ajit Doval, Principal Secretary to the PM Pramod Kumar Mishra, Foreign Secretary Vikram Misri, Somanathan and Govil as ex-officio members.
- ❖ The Bhabha Atomic Research Centre Director Vivek Bhasin is also an ex-officio member of the commission.

30 GW Green Energy in 2024



- ❖ India added about 30 GW (Gigawatt) of new renewable energy capacity last year.
- ❖ It is 113 percent higher compared to 13.75 GW added in 2023.
- ❖ With the expansion, India's total renewable energy capacity has reached 218 GW.
- ❖ India has set a target of developing 500 GW of renewable energy capacity by 2030.
- ❖ To achieve this target, the country will have to install at least 50 GW of new renewable energy capacity every year in the next six years.

National River Traffic and Navigation System

- ❖ The second meeting of Inland Waterways Development Council was organised by the Inland Waterways Authority of India (IWAI).
- ❖ During the event, the National River Traffic and Navigation System (NRT&NS) was launched.
- ❖ It aims to modernize and enhance the safety, efficiency, and sustainability of the inland water transport.

- ❖ It leverages the real-time data and technology to optimize navigation on India's National Waterways.
- ❖ India has a vast network of 14,500 km of navigable waterways, including the 111 declared National Waterways (NWs).



Regional Conference on “Drug Trafficking and National Security”

Record Drug Seizures (2024)

- Drugs worth ₹16,914 crore seized, highest since Independence.
- Seven-fold increase in seizures over the past decade due to decisive measures.

Emerging Challenges

- Dark web, cryptocurrency, online marketplaces, and drones complicate anti-drug efforts.
- Collaboration between states, the Centre, and technocrats emphasized for technical solutions.

Success Against Narco-Terrorism

- Narco-terrorism networks dismantled in states like J&K, Punjab, Gujarat, and UP.
- Reduced links between drug trafficking and terrorism.

- ❖ This event was organized by the Narcotics Control Bureau in New Delhi.

- ❖ It focused on tackling the growing concern of drug trafficking and its impact on national security, with a special focus on eight states and union territories of northern India.
- ❖ In 2024, the NCB and police forces across India seized drugs valued at Rs 16,914 crore, highest figure since independence.
- ❖ 3.63 lakh kilograms of drugs were seized Between 2004 and 2014.
- ❖ The seized drugs increased sevenfold to 24 lakh kilograms in 10 years from 2014 to 2024.

Amrit Bharat Trains 2.0

- ❖ Indian Railways will soon roll out an upgraded version of the Amrit Bharat.
- ❖ It is termed as the Amrit Bharat 2.0 is an LHB push-pull train with non-air-conditioned coaches.
- ❖ At present, the two Amrit Bharat trains are operated by the Indian Railways - one between Anand Vihar of Delhi and Darbhanga of Bihar and another between Malda of West Bengal and Bengaluru.



INTERNATIONAL

World's First CAES system

- ❖ World's first 300-megawatt compressed air energy storage (CAES) demonstration project, "Nengchu-1," has achieved full capacity grid connection in China.
- ❖ The project has set three world records in terms of the single-unit power, energy storage scale and energy conversion efficiency.

- ❖ CAES is an emerging technology has advantages, like short construction periods, high power output, long duration, safety and longevity.



SCIENCE AND TECHNOLOGY



Tinnitus matching device

Tinnitus

Tinnitus is often described as a ringing sound in the ears or perception of sound in the head or ears that comes from inside the body rather than an outside source. Tinnitus is not a disease in itself; it is a symptom of a problem in a person's hearing (auditory) system, which includes the ears and the brain. Currently, there is no cure for tinnitus. However, there are ways to reduce symptoms.

Types of Tinnitus

There are 2 main types of tinnitus, which includes:

Subjective tinnitus	Objective tinnitus
	

- ❖ IIT Bombay have developed a precise tinnitus matching device and customisable solution (mobile based software) at an affordable cost.
- ❖ Tinnitus is the perception of sound in the absence of any external stimulus.
- ❖ It results in severe sleep disturbance, depression, anxiety, negative impact on mental health, irritability, impacting social life.
- ❖ Overall tinnitus has a demoralising impact on the quality of life.

- ❖ Tinnitus affects more than 740 million adults globally and is considered to be a major problem faced by more than 120 million people.

New Search and Rescue Aid Tool



- ❖ The Indian National Centre for Ocean Information Services (INCOIS) has developed a newer version of its own Search and Rescue Aid Tool (SARAT).
- ❖ It will provide 'better accuracy and utility' and aid the Indian Search and Rescue (SAR) agencies such as the Indian Coast Guard in their operations at sea.
- ❖ SARAT application can simulate the probable search area of a range of objects lost at sea, including humans.
- ❖ SARAT was launched in 2016 and has been used extensively by the Coast Guard in its marine search operations.

STATES

Great Indian Bustard Conservation – Rajasthan

- ❖ At least 12 Great Indian Bustards (GIBs) were spotted in a group in the wild in Rajasthan.
- ❖ The birds, locally known in the northern and western India as "Godawan" and "Maldhok", were spotted at Desert National Park (DNP).
- ❖ The GIB is a highly endangered bird species found in the Thar area of Rajasthan.

- ❖ Today, only 173 birds are left, of which, 128 are found in the wild and the remaining are bred in captivity.
- ❖ Besides Rajasthan, the bird is found in Gujarat, Maharashtra, Madhya Pradesh, Andhra Pradesh and Karnataka.
- ❖ In 2011, the birds were listed as "critically endangered" by IUCN Red List.



The GIB is among the heaviest birds that can fly

THE GREAT INDIAN BUSTARD

GIB has been put in the Red List of the International Union for Conservation of Nature

DID YOU KNOW?
The Great Indian Bustard was proposed as a candidate for the National Bird of India and was under consideration.

The bird is hunted for its meat in Pakistan

PAKISTAN

It migrates from Rajasthan to Pakistan

THREATS TO THE BIRD

- Annual and perennial non-timber crops
- Renewable energy
- Transportation and power lines
- Human intrusions and disturbance
- Invasive and other problematic species, genes & diseases

2011
The year the species was enlisted in the critically endangered category

150
The approx population of the species in 2018

Height
3.3ft tall

Weight
18 kg

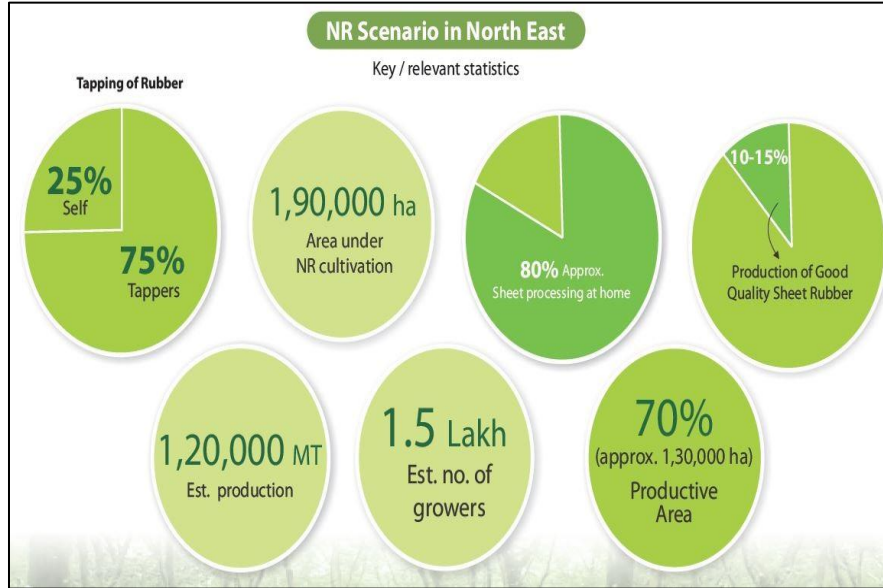
THE GIB IS RESTRICTED TO POCKETS IN

1. Andhra Pradesh
2. Gujarat
3. Karnataka
4. Maharashtra
5. Madhya Pradesh
6. Rajasthan

INROAD Project 2025

- ❖ The INROAD project in the North East has received the financial support of ₹100 crore for improving the quality of natural rubber.
- ❖ INROAD stands for Indian Natural Rubber Operations for Assisted Development.

- ❖ INROAD is a first-of-its-kind project in the world in which the tyre industry is contributing directly to the development of rubber plantations.
- ❖ It is financially supported by four members of ATMA, including Apollo, CEAT, JK, and MRF, and implemented by the Rubber Board of India.



Rat-hole coal mine – Assam



- ❖ Recently some workers trapped and died in a flooded rat-hole coal mine at Dima Hasao district in Assam.
- ❖ It is an unscientific and illegal form of mining prevalent in some parts of the North-East.

- ❖ It is called the rat-hole mining because the tunnels are narrow and allow the movement of only one person.
- ❖ The underground passages are interconnected but they become veritable traps for workers when the mines collapse or flood.
- ❖ In 2014, the National Green Tribunal (NGT) banned rat-hole mining.

Purulia Observatory

- ❖ This observatory was established by the S N Bose Centre for Basic Sciences (SNBCBS) atop the Panchet Hill in West Bengal.
- ❖ The observatory at a height of 600 meters above ground level and at longitude of approximately 86° E.
- ❖ It will be a major observatory not only in eastern India, but also in the world.



IMPORTANT DAYS

National Road Safety Week 2025

- ❖ The National Road Safety Week was organised by the Ministry of Road Transport and Highways (MoRTH).
- ❖ The National Road Safety Week was first organised in 1989.



- ❖ It is hosted annually from January 11 to January 17 to promote the road safety measures.
- ❖ This dedicated week provides an opportunity to educate people about the joint responsibility of maintaining road safety throughout their journey.
- ❖ This year's theme is 'Be a Road Safety Hero'.

