



**October - 20**

## **TNPSC BITS**

- ❖ Google DeepMind publicly launched Gemini 4 Argon, a frontier artificial intelligence (AI) model designed for complex software engineering, business, legal, financial and cybersecurity tasks.
- ❖ Southern Railway will introduce Tamil Nadu's first Vistadome coach on the Madurai–Guruvayur Express from October 22, 2026, on a trial basis until January 16, 2027.
- ❖ The Department of Consumer Affairs launched the first-ever Kanda Express to Agartala, Tripura, carrying around 440 metric tonnes (MT) of onions to improve availability and control prices before the festive season.
  - The initiative distributes onion buffer stocks under the Price Stabilization Fund (PSF) to improve supply and keep prices affordable.
- ❖ World Menopause Day is observed annually on 18 October to raise awareness about menopause and improve support and care for women worldwide.
  - The theme for the year 2026 is "Chronic Pain at Midlife".
- ❖ World Statistics Day is observed every year on 20 October to highlight the importance of reliable statistics and data for informed decision-making and sustainable development.

## **NATIONAL NEWS**

### **National Strategic Trade Command Centre**

- ❖ Union Minister of Commerce and Industry launched the National Strategic Trade Command Centre (NSTCC) at Vanijya Bhawan, New Delhi.
- ❖ NSTCC is a centralised trade intelligence and data analytics hub developed by the Department of Commerce under the Ministry of Commerce and Industry, in coordination with the Directorate General of Foreign Trade (DGFT).
- ❖ Its aim is to enable real-time trade monitoring, evidence-based policymaking, greater transparency and faster trade clearances.
- ❖ It monitors Importer Exporter Code (IEC), Advance Authorisation, Export Promotion Capital Goods (EPCG) scheme and Certificates of Origin (CoO).
- ❖ It tracks licences for Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET), export obligations, regulatory compliance and trade performance across products and markets.

- ❖ It integrates data from the DGFT portal and Trade Connect ePlatform, helping identify trade bottlenecks, emerging export markets and underused Free Trade Agreements (FTAs).



## New Food Safety Rules 2026



- ❖ The Food Safety and Standards Authority of India (FSSAI) proposed changes to food safety rules.
- ❖ The proposal seeks to ban the addition of sucrose and fructose in food products for babies up to six months old.
- ❖ Currently, these sugars can be added in infant foods, with their combined amount limited to 20% of total carbohydrates.

- ❖ FSSAI proposed maximum residue limits (MRLs) for pesticides in tea: 20 parts per million (ppm) for acetamiprid and 50 ppm for imidacloprid.
- ❖ MRLs specify the highest legally permitted concentration of pesticide residues in food.

## INTERNATIONAL NEWS

### Bangkok Cybersecurity Framework

- ❖ The International Monetary Fund (IMF) and World Bank Group (WBG), with the Bank of Thailand, launched the Bangkok Blueprint in Bangkok, Thailand.
- ❖ It provides a framework to prevent, detect and address cyber-enabled fraud in digital financial services.
- ❖ It contains 12 key considerations under five pillars, including legal foundations, fraud prevention, enforcement, cooperation and consumer protection.
- ❖ It promotes cooperation between governments, financial institutions, law-enforcement agencies and digital platforms across countries.
- ❖ Asia accounted for 67% of global fraud losses in 2024, according to the Bank of Thailand Governor.



### WHO Pandemic Intelligence Hub Strategy

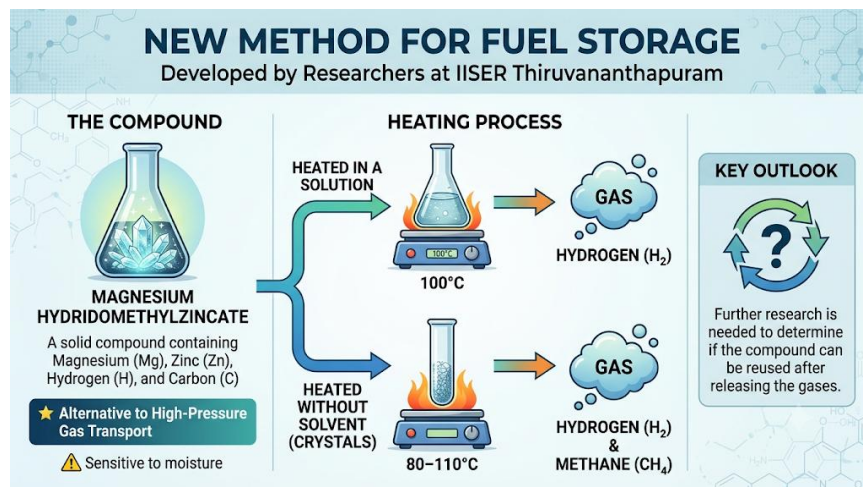
- ❖ The World Health Organization (WHO) announced a five-year strategy for its Pandemic and Epidemic Intelligence Hub at the World Health Summit in Berlin.
- ❖ The Berlin-based hub was established in 2021 after the COVID-19 pandemic to strengthen global outbreak detection and response.
- ❖ It aims to help every country detect and understand emerging health threats within 24 hours by 2030.
- ❖ Its five priorities include open-source epidemic intelligence, pathogen surveillance, data science, collaborative surveillance and secure digital systems.
- ❖ Artificial Intelligence (AI) will scan public sources for outbreak signals, while the One Health approach connects human, animal and environmental health.

- ❖ The hub has worked with 160 member states and 190 partner organisations.



## SCIENCE AND TECHNOLOGY NEWS

### New Method for Fuel Storage



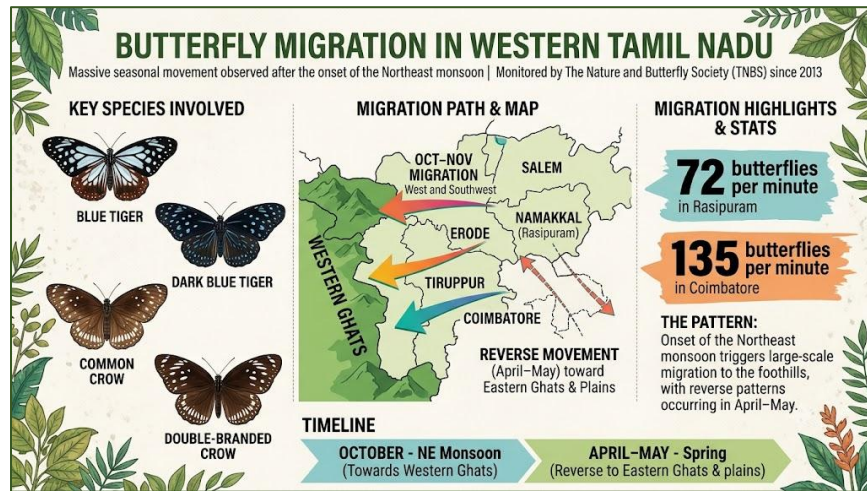
- ❖ Researchers at the Indian Institute of Science Education and Research (IISER), Thiruvananthapuram, developed a compound that releases hydrogen and methane when heated.
- ❖ The compound, magnesium hydridomethylzincate, contains magnesium, zinc, hydrogen and carbon.
- ❖ Heating it in a solution at 100°C releases hydrogen, while heating its crystals at 80–110°C without a solvent releases both hydrogen and methane.
- ❖ The solid compound may offer an alternative to transporting these fuel gases under high pressure, but it is sensitive to moisture.

- ❖ Further research is needed to determine whether the compound can be reused after releasing the gases.

## ENVIRONMENT NEWS

### Butterfly Migration in Western Tamil Nadu

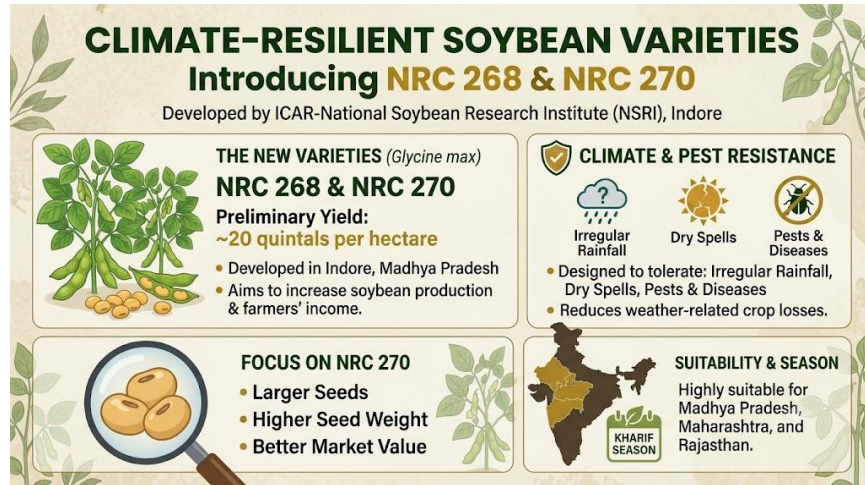
- ❖ Large-scale butterfly migration was observed across Salem, Namakkal, Erode, Tiruppur and Coimbatore districts after the onset of the Northeast monsoon.
- ❖ Blue Tiger, Dark Blue Tiger, Common Crow and Double-branded Crow butterflies were seen moving west and southwest toward the Western Ghats foothills.
- ❖ Blue Tigers crossed Rasipuram at 72 individuals per minute, while movement in Coimbatore reached 135 butterflies per minute.
- ❖ The The Nature and Butterfly Society (TNBS) has monitored this migration pattern since 2013.
- ❖ A reverse movement from the Western Ghats towards the Eastern Ghats and plains normally occurs during April–May.



### Climate-Resilient Soybean Varieties

- ❖ The Indian Council of Agricultural Research (ICAR)–National Soybean Research Institute (NSRI), Indore, showcased new soybean varieties NRC 268 and NRC 270, with preliminary yields of around 20 quintals per hectare.
- ❖ NRC 268 and NRC 270 are improved varieties of soybean (Glycine max), developed in Indore, Madhya Pradesh.
- ❖ The varieties aim to increase soybean production, reduce weather-related crop losses and improve farmers' income.

- ❖ NRC 270 has larger seeds, higher seed weight and better market value.
- ❖ Both varieties are designed to tolerate irregular rainfall, dry spells, pests and diseases.
- ❖ They are suitable for soybean-growing States such as Madhya Pradesh, Maharashtra and Rajasthan, especially during the Kharif season.



**CLIMATE-RESILIENT SOYBEAN VARIETIES**  
**Introducing NRC 268 & NRC 270**  
Developed by ICAR-National Soybean Research Institute (NSRI), Indore

**THE NEW VARIETIES** (*Glycine max*)  
**NRC 268 & NRC 270**  
**Preliminary Yield:**  
**~20 quintals per hectare**

- Developed in Indore, Madhya Pradesh
- Aims to increase soybean production & farmers' income.

**CLIMATE & PEST RESISTANCE**

- Irregular Rainfall
- Dry Spells
- Pests & Diseases
- Designed to tolerate: Irregular Rainfall, Dry Spells, Pests & Diseases
- Reduces weather-related crop losses.

**FOCUS ON NRC 270**

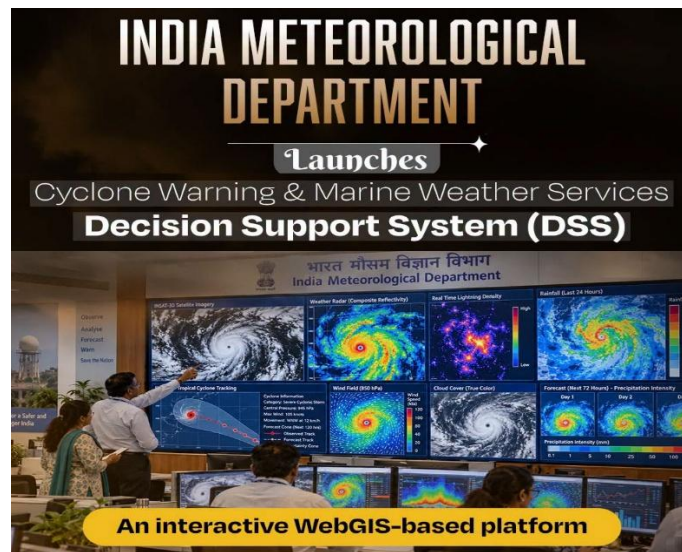
- Larger Seeds
- Higher Seed Weight
- Better Market Value

**SUITABILITY & SEASON**

Highly suitable for Madhya Pradesh, Maharashtra, and Rajasthan.

**KHARIF SEASON**

## Interactive Cyclone Warning System



**INDIA METEOROLOGICAL DEPARTMENT**

**Launches**

**Cyclone Warning & Marine Weather Services Decision Support System (DSS)**

भारत मौसम विज्ञान विभाग  
India Meteorological Department

**An interactive WebGIS-based platform**

- ❖ The India Meteorological Department (IMD) launched an interactive Cyclone Warning and Marine Weather Services Decision Support System (DSS) to improve cyclone preparedness.
- ❖ The platform is a Web Geographic Information System (WebGIS) that displays cyclone tracks, wind speed, rainfall warnings and storm surge information.

- ❖ It provides location-specific warnings to disaster management authorities, government agencies and the public.
- ❖ It supports evacuation planning, timely decision-making and disaster risk reduction.
- ❖ Its launch coincided with the anniversaries of the landfalls of Cyclones Phailin (2013) and Hudhud (2014).

### **Banjar Community Forest Rights**

- ❖ Recognition of Community Forest Resource (CFR) rights in Banjar, Himachal Pradesh, highlights the implementation of the Forest Rights Act, 2006.
- ❖ The Forest Rights Act, 2006, recognises the rights of forest-dwelling Scheduled Tribes and other traditional forest dwellers.
- ❖ Gram Sabhas should prepare Community Forest Resource Management Plans with government and scientific support.
- ❖ The plans aim to conserve forests, biodiversity and water sources while promoting sustainable livelihoods and climate resilience.
- ❖ Women and young people should participate in forest governance, monitoring and decision-making.
- ❖ Progress should be measured through forest health, water security, improved livelihoods and stronger local institutions.



## **REPORTS AND INDICES**

### **World Economic Outlook 2026**

- ❖ The International Monetary Fund (IMF) released its World Economic Outlook (WEO) report, raising its global growth forecast for 2026.

- ❖ Global economic growth is projected at 3.1% in 2026, up by 0.1 percentage points, compared with 3.5% in 2025.
- ❖ Global growth for 2027 remains unchanged at 3.4%, while global inflation is projected to reach 4.7% in 2026.
- ❖ The Iran war and rising energy prices threaten energy-importing and low-income countries, while investment in Artificial Intelligence (AI) supports growth in some advanced economies.
- ❖ The Middle East and Central Asia region is projected to contract by 0.3% in 2026, while advanced economies are expected to grow by 2.1%.



## STATE NEWS

### New High Court Bench - Ladakh

**J&K High Court's Ladakh bench to be inaugurated soon; will hear cases from October 21**

- ❖ The Union Territory (UT) of Ladakh got a High Court (HC) bench in Leh, located about 3,500 metres above sea level.
- ❖ The bench belongs to the High Court of Jammu and Kashmir and Ladakh, established on 26 March 1928.

- ❖ Ladakh became a separate Union Territory in 2019, after which the High Court was renamed the High Court of Jammu and Kashmir and Ladakh.
- ❖ The bench aims to improve access to justice for people living in Ladakh's remote and mountainous regions.
- ❖ The Supreme Court plans to hear matters from Ladakh on a single day through video conferencing once adequate facilities are available.

## MISCELLANEOUS NEWS

### Kekova Island Shipwreck Discovery

- ❖ Archaeologists discovered the world's oldest known shipwreck near Kekova Island, Antalya, southern Turkey, dating back 4,400–4,700 years to the Early Bronze Age.
- ❖ The vessel was about 10 metres long and carried over 30 ceramic storage pots called amphorae and three stone anchors.
- ❖ The ship's wooden structure has not survived; archaeologists estimated its age from the pottery's shape and decoration.
- ❖ Residues inside some pots are being analysed to identify possible ancient trade goods such as olive oil, wine or tree resins.
- ❖ The discovery provides evidence of early Mediterranean maritime trade.

