

September - 17

## TNPSC BITS

- ❖ Tamil Nadu government has decided to change the venue of the proposed Mangrove Conservation Centre to Pichavaram in the Cuddalore district instead of Muthupet.
- ❖ India maintained the top spot as the leading source market for Sri Lanka tourism in the first 8 months of 2024.
- ❖ Union Cabinet gave its approval to the proposal of Department of Rural Development for the implementation of the Pradhan Mantri Gram Sadak Yojana -IV (PMGSY-IV) during Financial Year 2024-25 to 2028-29.
- ❖ The Central Drugs Standard Control Organization (CDSCO) has approved Siemens Healthineer's indigenous IMDX MpoX Detection RT-PCR test for the viral disease.
- ❖ Abu Dhabi National Oil Company (ADNOC) and ExxonMobil partnership is to develop the world's largest low-carbon hydrogen facility.
- ❖ Prasanthi Ram, an Indian origin lecturer from the University of Nanyang technological University has won the Singapore literature prize for English fiction for her short story -'Nine Yard Sarees'.
- ❖ Lockheed Martin and Tata Advanced Systems Limited (TASL) collaborated for establishing a Maintenance, Repair and Overhaul (MRO) facility in India to support of C-130J Super Hercules transport aircraft as well as other global C-130J fleets.

## NATIONAL

### Digital identities to fisheries workers

- ❖ The Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY) was launched as a sub-scheme of the Pradhan Mantri Matsya Sampada Yojna (PMMSY)
- ❖ It will provide digital identities to around three crore stakeholders by creating a registry of fish workers and enterprises engaged in the fisheries value chain across the country.
- ❖ PMMSY was launched in 10<sup>th</sup> September 2020.
- ❖ The country's fish production has increased to 175.45 lakh tonnes in 2023-24 from 95.79 lakh tonnes in 2013-14

- ❖ The Centre working to increase the seafood exports to ₹1 lakh crore annually from around ₹60,000 crore in the last financial year.

### Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY)

- Cabinet approves Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana for formalization of fisheries sector and supporting fisheries micro and small enterprises
- Investment of over **Rs. 6,000 crores** over next 4 years from FY 2023-24 to FY 2026-27 in all States/Union Territories

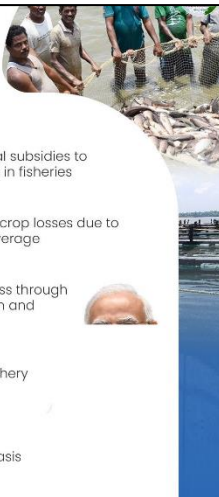
#### Benefits

- Creation of National Fisheries Digital Platform to provide **40 lakh small and micro-enterprises** work based identities
- Support to **6.4 lakh micro-enterprises** and **5,500 fisheries cooperatives**, providing access to institutional credit

### Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY)

#### Benefits

- Gradual shift from conventional subsidies to performance based incentives in fisheries
- Address issues of aquaculture crop losses due to disease through insurance coverage
- Enhance export competitiveness through value addition, value realization and value creation
- Improved quality of fish and fishery products in domestic market
- Projected to create **1.7 lakh new jobs**, with a special emphasis on employing **75,000 women**



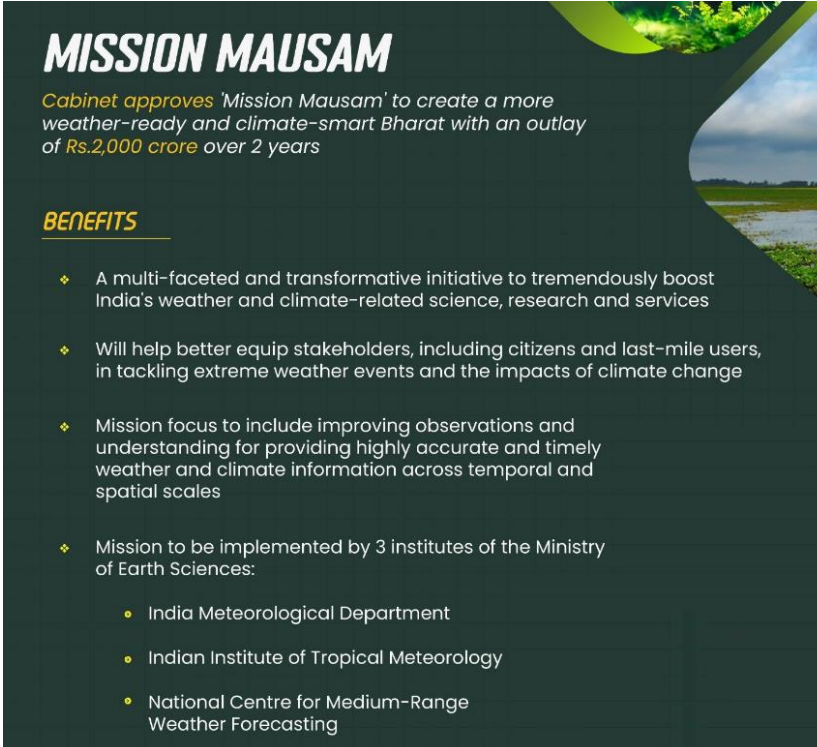
## Mission Mausam

# MISSION MAUSAM

Cabinet approves '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

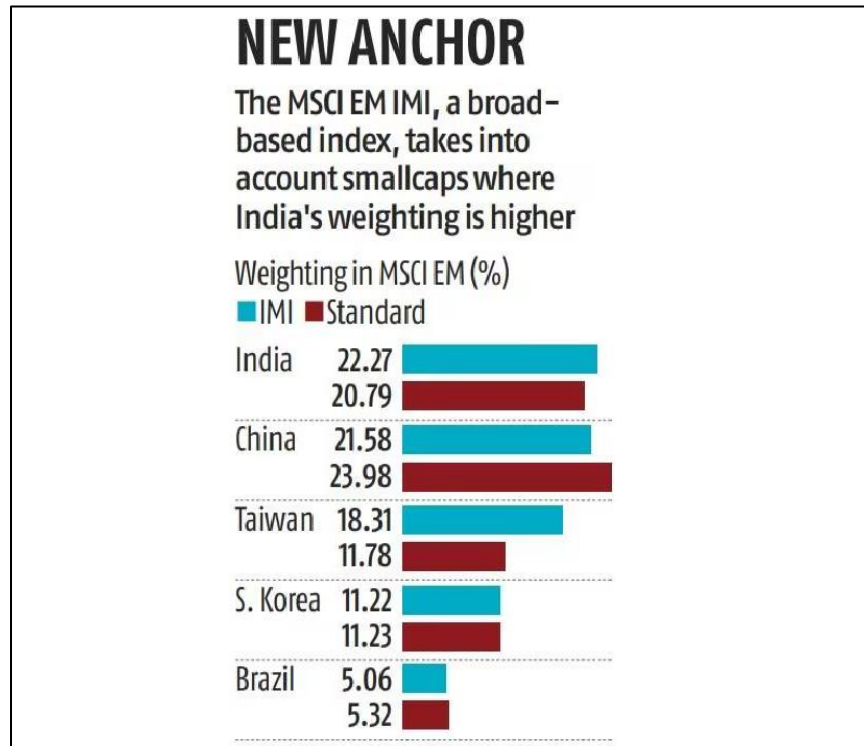


- ❖ The Union Cabinet has approved 'Mission Mausam' with an outlay of ₹2,000 crore over two years.

- ❖ The aim of the programme will be to bolster the research and development, and capacity in atmospheric sciences, weather surveillance, modelling, forecasting, and management.
- ❖ The following Three institutes of the Ministry of Earth Sciences will primarily implement Mission Mausam.
  - The India Meteorological Department,
  - The Indian Institute of Tropical Meteorology, and
  - The National Centre for Medium-Range Weather Forecasting.

## ECONOMY

### MSCI EM Index



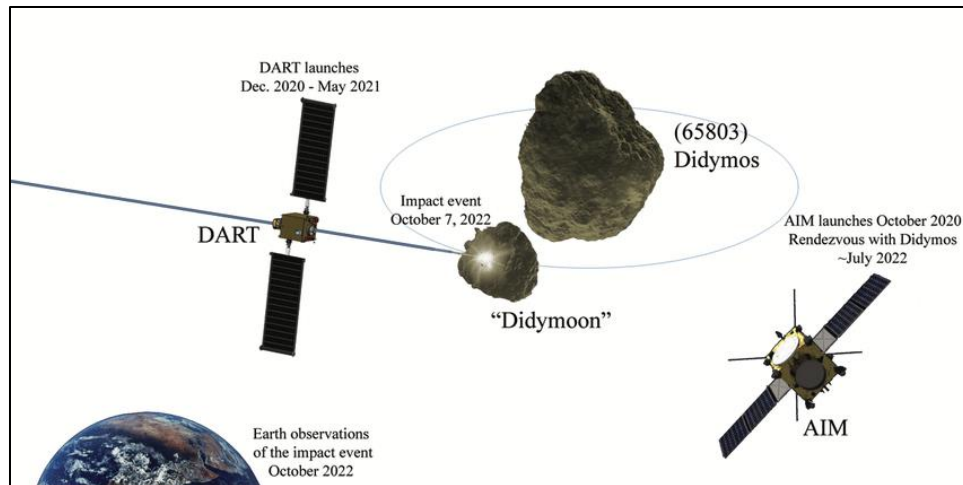
- ❖ India has surpassed China to become the top weight nation in the MSCI Emerging Market (EM) Investable Market Index (IMI) for the first time.
- ❖ Indian equities together carry a weighting of 22.27 per cent in the index, edging ahead of Chinese stocks.
- ❖ Their combined weight now has fallen to 21.58 per cent.
- ❖ China's market capitalisation of \$8.14 trillion being over 60 per cent greater than India's \$5.03 trillion.

- ❖ The MSCI Emerging Markets Investable Market Index (EM IMI) is a comprehensive index that includes large, mid, and small-cap stocks from 24 emerging market countries.

## SCIENCE AND TECHNOLOGY

### Human-Made Meteor Shower

- ❖ Debris from a two-year-old Nasa mission could be the cause of first man-made meteor shower.
- ❖ Nasa's Double Asteroids Redirect Test (DART) mission, intentionally collided with the moonlet Dimorphos in September 2022.
- ❖ It may result in this unique phenomenon.
- ❖ The mission is aimed to test asteroid deflection technology.
- ❖ Scientists now believe the impact produced over 2 million pounds of debris that could create meteor showers around Earth and Mars within 10 to 30 years.
- ❖ Due to the collision, fragments from Dimorphos could intermittently and periodically arrive at Earth and Mars for at least 100 years.
- ❖ The debris is traveling at 1,118 miles per hour could reach Mars.
- ❖ The smaller and faster particles moving at 3,579 miles per hour could reach Earth in under 10 years.



### New Wetland Virus

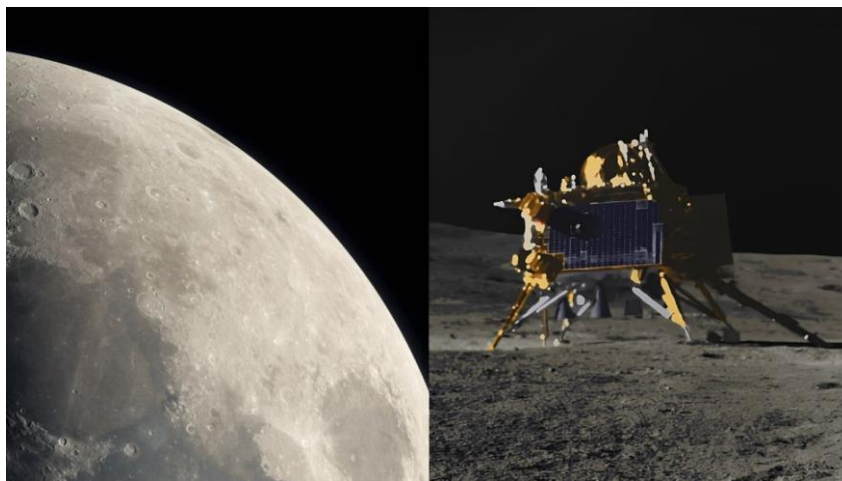
- ❖ A new virus, dubbed wetland virus (WELV), has been discovered in China.
- ❖ It can spread to humans through tick bites, causing neurological disease in some cases.

- ❖ It was discovered in a man in 2019 after visiting a park in a large wetland in Mongolia.
- ❖ Ticks in the species *Haemaphysalis concinna* had more potential to harbour the virus.
- ❖ Tick-borne diseases are widespread. Common diseases like Alpha-gal syndrome (AGS), Lyme disease, Anaplasmosis, Ehrlichiosis, Babesiosis, Powassan (POW), Rocky Mountain Spotted Fever, and Tularemia are spread through ticks.
- ❖ Lyme disease is the most commonly reported tick-borne disease in the United States.



Scientists are warning of a new tick-borne disease, which they call the Wetland virus, that was recently discovered in China.

### **Mysterious tremors on Moon**

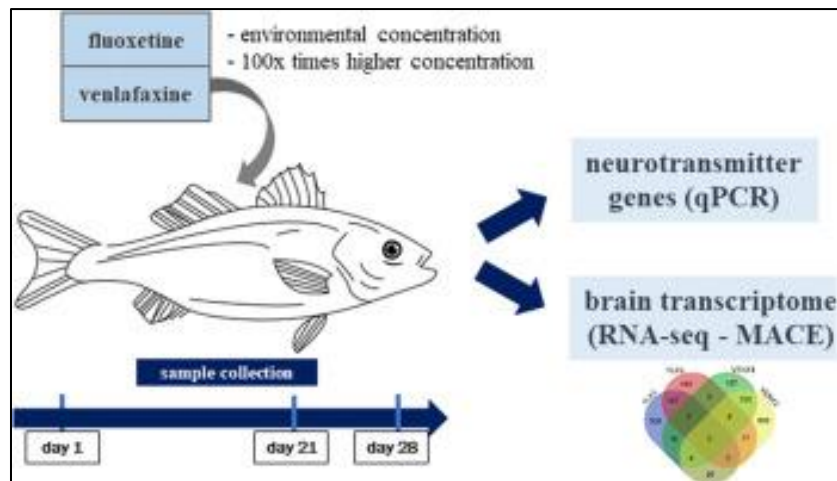


- ❖ Chandrayaan-3 became the first lunar mission to have detected more than 250 seismic signatures from the south pole of the Moon.

- ❖ These 250 seismic signals included 50 unique signals that are likely to have links with moonquakes.
- ❖ Moonquakes refer to the earthquake on the lunar soil.
- ❖ Out of the 250 seismic events, about 200 correlates with Pragyán's movements or other instrument operations.
- ❖ This is the first time seismic data has been collected from the South Pole of the lunar surface.
- ❖ It is also the first time such an activity has been recorded since the Apollo missions.

## ENVIRONMENT

### Fluoxetine effects on fishes



- ❖ Long-term exposure to fluoxetine (Prozac) can significantly disrupt the behaviour and reproductive traits of the male guppy fish.
- ❖ The male guppies are more sensitive to environmental changes.
- ❖ Low Fluoxetine reduced activity levels and increased refuge-seeking behaviour in male guppies.
- ❖ It also increased variation in sperm numbers.
- ❖ Refuge seeking behaviour refers specifically to how much time the fish spend in hiding or protected areas, as opposed to open,
- ❖ High fluoxetine concentrations increased variation in body condition between individuals.
- ❖ Fluoxetine or Prozac is a widely used antidepressant medication.

- ❖ Guppy fish are small, colorful species due to which they are extremely used for decoration purposes in aquariums.

### **Antarctica's Ice Collapse Risk**

- ❖ The Scientists used computer models to simulate what might happen if West Antarctica's ice cliffs were to start collapsing.
- ❖ They found that the ice might flow into the ocean more quickly, preventing the cliffs from getting tall enough to cause a major collapse.
- ❖ This means the chance of a catastrophic breakdown might be lower than what we thought.
- ❖ There are large ice sheets that sometimes break away from the continent and float in the ocean.
- ❖ When these floating ice sheets melt, they can leave behind very tall and unstable ice cliffs.
- ❖ Scientists worry that if these cliffs collapse, huge chunks of ice could fall into the ocean, causing sea levels to rise dramatically worldwide.



## **SPORTS**

### **4<sup>th</sup> South Asian Junior Athletics Championships 2024**





- ❖ India hosts the 4th South Asian Junior Athletics Championships 2024 at the Jawaharlal Nehru Stadium, Chennai.
- ❖ Abinaya Rajarajan won gold in Women's 100m event.
- ❖ V Sudheeksha won silver in the same event.

- ❖ Siddharth Choudhary won gold in Women's Men's shot-put event.
- ❖ Neeru Pathak won the ninth gold for the Indian team in the women's 400m.
- ❖ Pooja won gold in Women's high jump event.
- ❖ Anisha won gold medal in women's discus throw.
- ❖ Vinod Kumar won silver in Men's 800m event.
- ❖ Mruthyam Rajaram won bronze in Men's 100m event.



## MISCELLANEOUS

### A1 or A2 claim on Milk

<b>2 be or not 2 be</b>		
Customers often pay more for the promise of A2 milk without verifying the authenticity of the product at source		
	Indigenous 'Desi Cow'	Crossbred, exotic cow
Types	 Gir, Sahiwal, Tharparkar	 Jersey, Holstein
Physical Attributes	Distinct hump, leafy ears	No hump, roundish ears
Milk Yield	 5-6 litres a day	 15-20 litres a day
Genetic attribute	<b>A2/A2</b>	<b>A1/A2</b>
Cost of DNA certification	<b>Rs 5,000 - 7,000</b> per cow	
Cost of daily test (Random sampling for A2 protein)	<b>Rs 3,000 - 4,000</b> per batch/sample	

- ❖ The FSSAI issued a notification to protect consumers from unscientific claims by food/dairy companies regarding the superiority of A2 milk, ghee, or products over A1 milk/products.



- ❖ It has directed to remove claims of 'A1' and 'A2' types of milk and milk products from packaging, calling such labelling misleading.
- ❖ The main difference between 'A1' and 'A2' milk fat products is merely due to the structure of a protein known as beta casein.

