

October - 06

TNPSC BITS

- ❖ India launched world's first State-funded project of its kind, BharatGen, an initiative to make the generative AI available to citizens in the different Indian languages.
- ❖ India will soon become the fifth country to run hydrogen-fuelled trains, after Germany, France, Sweden, and China.
- ❖ Virat Kohli completed 27000 international runs and became the fastest cricketer to reach that milestone and broke the record of Sachin Tendulkar.
- ❖ Ishpreet Singh Chadha beat the four-time world champion Mark Selby in the Pro circuit snooker held at England to make place in the semifinal of that tournament.
- ❖ The eighth edition of India-Kazakhstan Joint Military Exercise KAZIND-2024 commenced in Uttarakhand.
- ❖ Archaeologists have unearthed the oldest eyeliner from the ruins of a prehistoric city in Turkey, has proved that humans were using makeup more than 8,000 years ago.
- ❖ BioNTech has started the international clinical trials for BNT116, an mRNA vaccine aimed at treating non-small cell lung cancer (NSCLC).
- ❖ The Institute of Tropical Meteorology (IITM) has introduced 'high-performance computing' or HPC named 'Arka' and 'Arunika' for the weather and climate research.
- ❖ Operation Amrith (Antimicrobial Resistance Intervention for Total Health) of Kerala has seen a sharp decline in the irrational use of antibiotics in the state.
 - In early January this year, Kerala became the first State in the country to ban the over-the-counter sale of antibiotics without a prescription.
- ❖ German Unity Day celebrated on 3 October to commemorate the anniversary of German reunification in 1990.

NATIONAL

EMPS 2024

- ❖ The PM E-DRIVE scheme launched for the promotion of electric vehicles (EVs) and the development of charging infrastructure and manufacturing capabilities.

- ❖ The scheme will run from October 1 to March 31, 2026, and aims to accelerate the country's shift towards electric mobility.
- ❖ The PM E-DRIVE will absorb the ongoing Electric Mobility Promotion Scheme (EMPS) 2024, merging its budget and vehicle targets into the new framework.

PM E-DRIVE

INCENTIVE FOR VEHICLES*

2024-2025
₹ 5,000/- per kWh, capped at ₹ 10,000/- per vehicle

2025-2026
₹ 2,500/- per kWh, capped at ₹ 5,000/- per vehicle

MAXIMUM EXFACTORY INCENTIVE
₹ 1.5 lakh

SUPPORT FROM MHI (CR)
₹ 1,777*2

*1 The incentive will be limited to 15% of ex-factory price.
*2 The EMPS-2024 is subsumed within the outlay under PM E-DRIVE.

INCENTIVES OR GRANT TO HALVE FROM NEXT YEAR FOR E2W

Dharti Aaba Janjatiya Gram Utkarsh Abhiyan

Dharti Aaba Janjatiya Gram Utkarsh Abhiyan

₹79,150 Crore



- ❑ Benefit over 5 Crore tribal people
- ❑ 549 Districts and 2,740 blocks, 30 states and UT
- ❑ 25 Interventions across 17 Ministries and departments

- ❖ The Union govt launched the Dharti Aaba Janjatiya Gram Utkarsh Abhiyan.



- ❖ It aims to transform the socio-economic landscape of around 63,000 villages, benefiting over 5 crore tribal residents across 549 districts and 2,740 blocks in 30 States and Union Territories.
- ❖ The initiative focuses on attaining saturation of critical gaps in social infrastructure, health, education, livelihood, through 25 interventions implemented by 17 different ministries and departments.

National Health Accounts estimates 2020-21 and 2021-22

Indicator	2021-22	2020-21	2019-20	2018-19	2017-18
Total health expenditure (THE) as percentage of GDP	3.8	3.7	3.3	3.2	3.3
Government health expenditure as proportion of THE	48	42.8	41.4	40.6	40.8
Govt health expenditure as proportion of GDP	1.84	1.6	1.35	1.28	1.35
Out-of-pocket expenditure as proportion of THE	39.4	44.4	47.1	48.2	48.8
Out of pocket expenditure as proportion of GDP	1.51	1.66	1.54	1.52	1.62
Private health insurance expenditure as percentage of THE	7.4	7.3	7	6.6	5.8

- ❖ The National Health Accounts Estimates for India 2020-21 and 2021-22 released by the Health Ministry.
- ❖ India has seen a decline in out-of-pocket expenditure out of total health expenditure from 64.2% in 2013-14 to 39.4% in 2021-22.
- ❖ The government health expenditure's share in the country's total GDP increased from 1.13% (2014-15) to 1.84% (2021-22).
- ❖ Also, the share of government expenditure in total health expenditure increased from 29.0% (2014-15) to 48.0% (2021-22).
- ❖ Social Security Expenditure's share in Total Health Expenditure increased from 5.7% in 2014-15 to 8.7% in 2021-22.




ECONOMY

RBI Monetary Policy Committee 2024

- ❖ The Reserve Bank of India has reconstituted the Monetary Policy Committee (MPC) as per section 45ZB of the Reserve Bank of India Act, 1934.

- ❖ As per the provisions of the RBI Act, the Monetary Policy Committee (MPC) consists of six members: three Members from RBI and three are appointed by the Central Government.
- ❖ The 3 Members appointed by the Central Government shall hold office for a period of four years.

FRESH FACES IN POLICY PANEL

 Ram Singh DIRECTOR OF THE DELHI SCHOOL OF ECONOMICS	 Saugata Bhattacharya SENIOR FELLOW AT THE CENTER FOR POLICY RESEARCH	 Nagesh Kumar DIRECTOR AND CHIEF EXECUTIVE OF THE INSTITUTE FOR STUDIES IN INDUSTRIAL DEVELOPMENT
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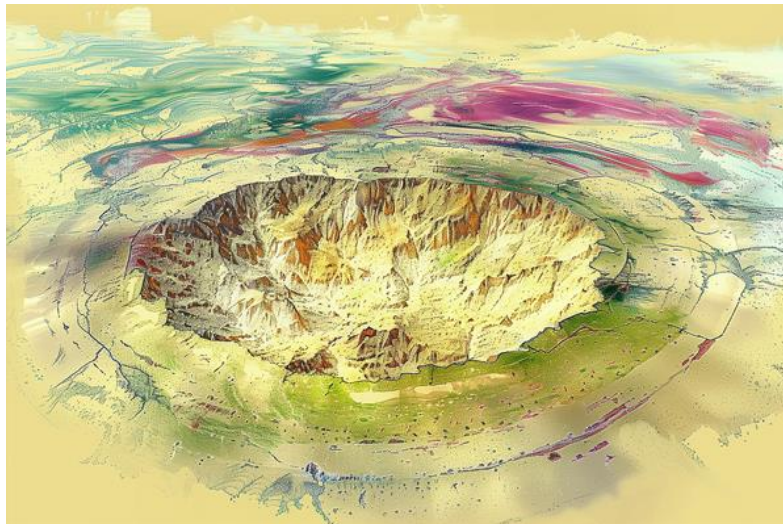
➤ The MPC was set up for **reviewing the monetary policy** from time to time as well as **fixing the benchmark interest rate**

➤ RBI's MPC consists of **six members**, three of whom are hired from outside the central bank for four-year terms

➤ The other three ex-officio members are governor **Shaktikanta Das**, deputy governor **Michael Patra** and executive director **Rajiv Ranjan**

SCIENCE AND TECHNOLOGY

MAPCIS Crater

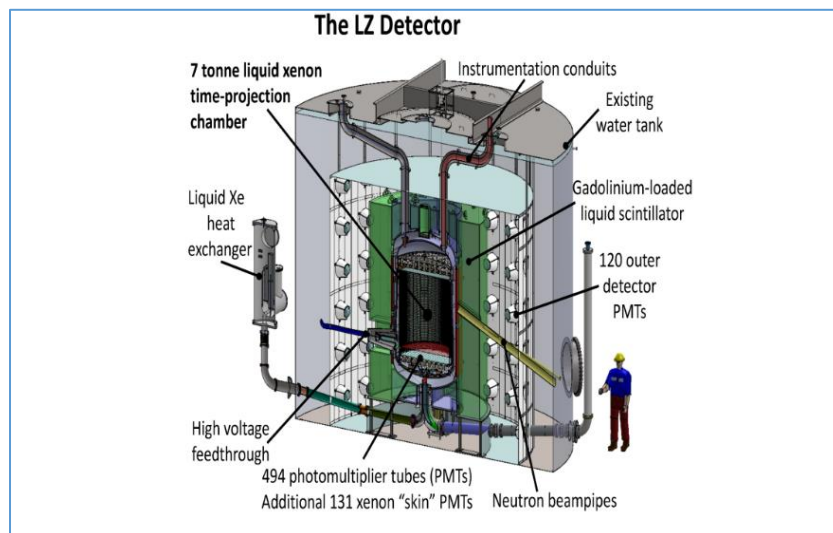


- ❖ Australian researchers have uncovered evidence of a massive impact crater of Earth's geological history.
- ❖ The newly discovered structure, named MAPCIS (Massive Australian Precambrian-Cambrian Impact Structure).

- ❖ It spans around 600 kilometers across central Australia.
- ❖ The impact may have occurred at the end of the Ediacaran period, within the Neoproterozoic Era, roughly 538.8 million to 1 billion years ago.

Neutrino Fog

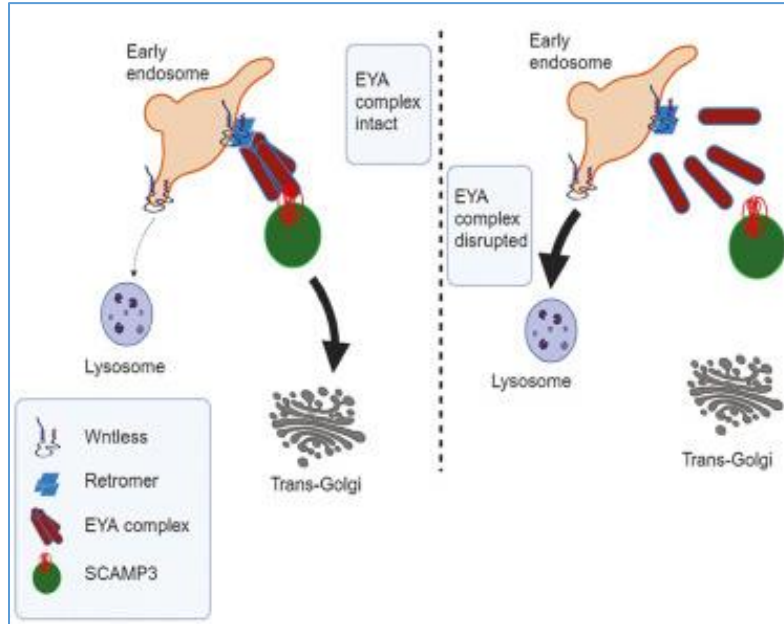
- ❖ The LUX-ZEPLIN (LZ) experiment revealed that as we continue to push the boundaries of dark matter detection, the issue of neutrino fog becomes increasingly significant.
- ❖ The LUX-ZEPLIN (LZ) experiment is a cutting-edge dark matter detection project in South Dakota, USA.
- ❖ Neutrinos, often referred to as “ghost particles,” are the subatomic particles with nearly zero mass and no electric charge.
- ❖ Neutrino Fog are the interference caused by neutrinos in dark matter detection experiments.



New Mechanism for Protein Regulation in Cells

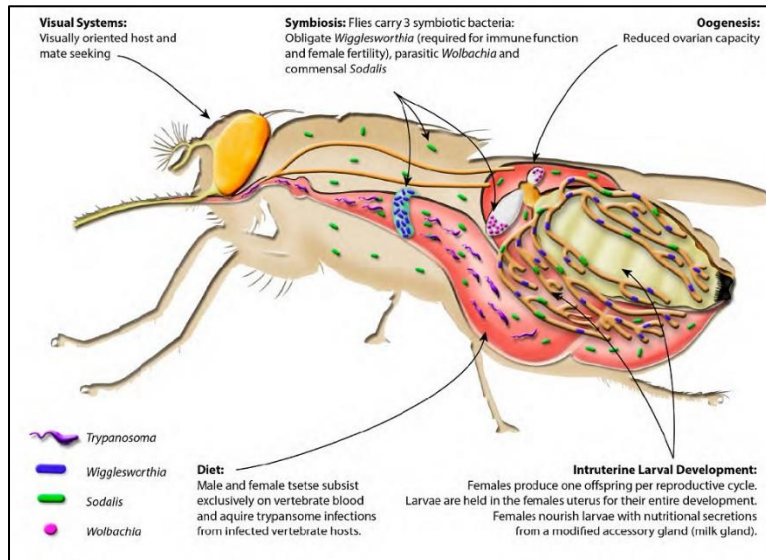
- ❖ Scientists have discovered a new process involving the Wntless (WLS) protein.
- ❖ It is crucial for the development of organs in animals with backbones (vertebrates).
- ❖ This discovery helps explain how proteins move inside cells.
- ❖ WLS is a protein found in cell membranes and is important for releasing another protein called Wnt3a.
- ❖ Wnt3a helps with the signalling that guides the early stages of organism development.

- ❖ WLS ensures that proteins go to the right places in the cell, helping organs like the intestines, lungs, inner ear, and eyes develop properly.



ENVIRONMENT

Tsetse fly



- ❖ Tsetse flies are present in 34 African countries, according to a new atlas published by Food and Agriculture Organization of the United Nations (FAO).
- ❖ Tsetse flies (genus *Glossina*) transmit trypanosomes.
- ❖ Trypanosomes are unicellular parasites that cause sleeping sickness in humans.

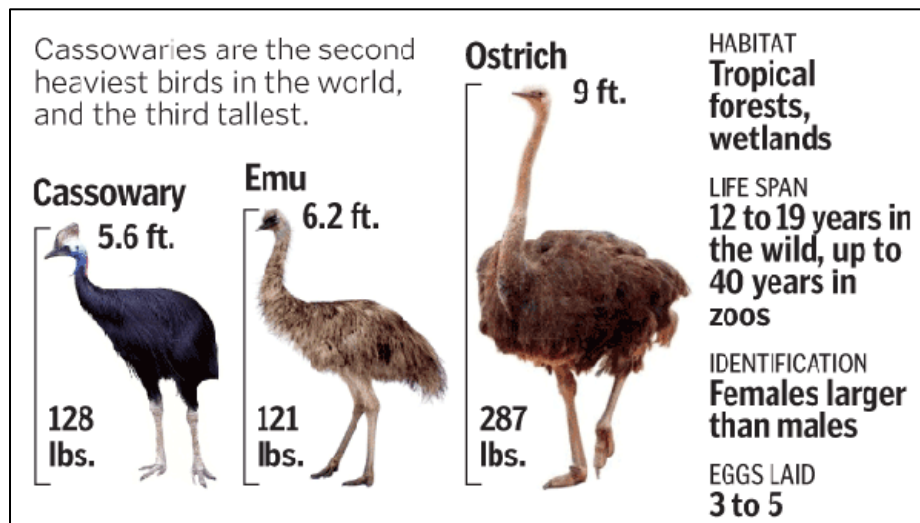
- ❖ The parasites have a significant impact on livestock in Africa.

New species of ghost shark

- ❖ Scientists have discovered a new species of ghost shark that lives in deep ocean waters near Australia and New Zealand.
- ❖ The Australasian Narrow-nosed Spookfish, or *Harriotta avia* is closely related to sharks and rays.
- ❖ Ghost sharks like this one are largely confined to the ocean floor, living in depths of up to 2,600m (8,530 feet).



Most Dangerous Bird



- ❖ Cassowaries are native to Northern Australia, New Guinea, and surrounding islands.
- ❖ This species is now at risk of extinction due to increased hunting and rapid habitat loss.
- ❖ Fewer than 5,000 left in the wild in Australia.
- ❖ It is considered the most dangerous bird in the world.

- ❖ The family Casuariidae includes three living cassowary species, all of the genus Casuarius.
- ❖ The largest cassowaries can stand as high as six feet and weigh up to 160 pounds.
- ❖ These large birds cannot fly, but their extremely powerful legs propel them at great speeds (31m/Hr).
- ❖ Every year, World Cassowary Day is observed on September 26th.

MISCELLANEOUS

250-year-old memorial stone

- ❖ A stone sculpture believed to be from the 17th or 18th centuries was unearthed in Modakkurichi taluk of Erode district.
- ❖ The sculpture, which has no inscriptions, depicts a couple along with images of the sun and moon.
- ❖ Since there were no inscriptions, exact details on why the stone was carved are unknown.

