

December - 13

TNPSC BITS

- ❖ India's foreign exchange reserves increased to \$604 billion after a gap of about four months.
 - The forex reserves were last above the \$600 billion mark on August 11 this year.
- ❖ Federal Bank, has been honored with the coveted title of “Bank of the Year (India)” by The Banker, Newspaper.
- ❖ With poor air quality, Pakistan’s Lahore topped the worldwide pollution index.
- ❖ The National Mission for Clean Ganga and Mississippi River Cities and Towns Initiative (MRCTI) signed a Memorandum of Common Purpose at the ongoing COP28 in Dubai.
 - It aims to collaborate on issues related to urban river management.

TAMIL NADU

Cauvery River Biodiversity & Hydrological Status

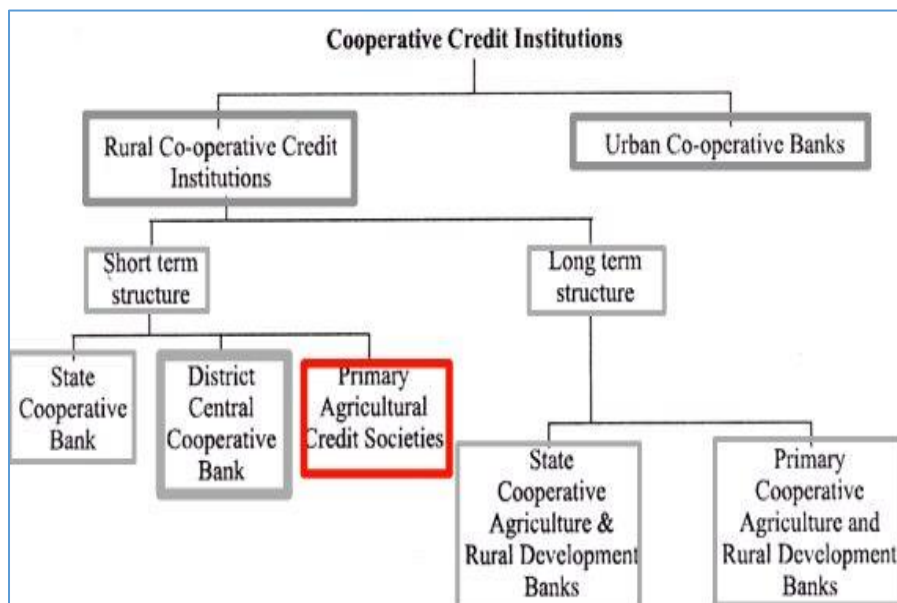


- ❖ The paper, titled “Cauvery River: Land Use Dynamics Biodiversity & Hydrological Status” was published by scientists and researchers at the Indian Institute of Science (IISc), Bengaluru.

- ❖ Natural vegetation on nearly 12,850 sq. km of land in the Cauvery basin was lost in the 50 years between 1965 to 2016.
- ❖ Karnataka has lost much more than any other State in the basin.
- ❖ It accounts for three-fourths of the lost cover, while Tamil Nadu's share is around one-fifth.
- ❖ Natural vegetation cover went down by around 46% all these years.
- ❖ The quantum of reduction of dense vegetation was 35% (6,123 sq. km) and that of degraded vegetation, 63% (6,727 sq. km).
- ❖ The extent of area under irrigation rose from 6,556 sq. km in 1928 to 20,233 sq. km now.
- ❖ In Karnataka, it was from 1,193 sq. km to 8,497 sq. km. Consequently, the water demand of the two States increased.

NATIONAL

Model bye-laws for PACs

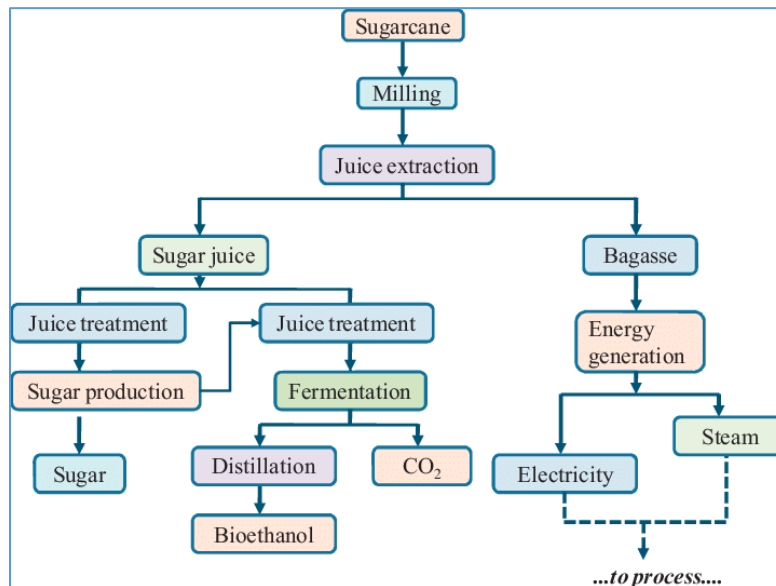


- ❖ The Ministry of Cooperation has introduced Model Bye laws aimed at revitalizing Primary Agricultural Credit Societies (PACS).
- ❖ The Model Byelaws refer to a set of guidelines or regulations to govern the functioning and operations of PACS at the grassroots level.
- ❖ By adopting Model Byelaws, PACS would be able to serve as multi-service centers, improve their operational efficiency, transparency and accountability and provide agricultural credit and various non-credit services, etc. in rural areas.

- ❖ PACS are village level cooperative credit societies that serve as the last link in a three-tier cooperative credit structure.
- ❖ There were 1.02 lakh PACS in the country.
- ❖ Maharashtra has 20,897 PACS of which 11,326 are in losses.

Sugarcane juice and Ethanol production

- ❖ The Centre banned the use of 'sugarcane juice and sugar syrup' for ethanol production in the 2023-24 supply year.
- ❖ It aims to maintain adequate sugar availability for domestic consumption and to keep prices under check.
- ❖ However, the government has allowed use of 'B-molasses', a cane by-product, for ethanol production in 2023-24.
- ❖ Ethanol, a colourless liquid, is blended with fuel as part of the government's initiative to reduce reliance on crude oil imports.

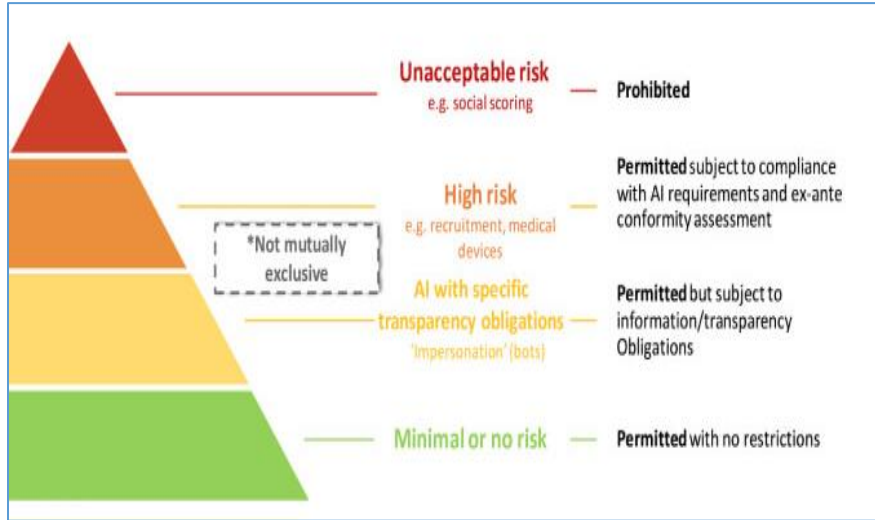


INTERNATIONAL

EU's AI Rules

- ❖ The EU becomes the very first continent to set clear rules for the use of AI.
- ❖ The European Parliament will now vote on the proposed AI Act early next year.
- ❖ This legislation is likely to come into force by 2025.

- ❖ It is trying to protect against its possible risks, like automating jobs, spreading misinformation online and endangering national security.



91st Interpol General Assembly



- ❖ The 91st General Assembly of the Interpol was held in Vienna.
- ❖ It also celebrated the centenary year of the International Criminal Police Organisation (Interpol), which was formed in 1923.
- ❖ Delegates from Central Bureau of Investigation (CBI) and National Investigation Agency (NIA) attended this event.
- ❖ India also supported the adoption of Interpol's 'Vision 2030'.
- ❖ India had joined the Interpol in 1949, and has been an active member of the organisation.
- ❖ It has hosted two General Assemblies.

- ❖ Last year, India hosted the 90th General Assembly which saw the participation of delegations from 168 countries.
- ❖ Interpol formed in 1923, is headquartered at Lyon, France.

SCIENCE AND TECHNOLOGY

WASP-17b

- ❖ The evidence of quartz nanocrystals detected in the high-altitude clouds of the exoplanet WASP-17b using the James Webb Space Telescope.
- ❖ The detection is the first time that silica particles have been detected in the atmosphere of an exoplanets.
- ❖ WASP-17 b is a gas giant exoplanet that orbits an F-type star.
- ❖ Its mass is 0.78 Jupiter's, it takes 3.7 days to complete one orbit of its star.
- ❖ This exoplanet is about 1,324 light-years away from our planet.



Monkey Chimera

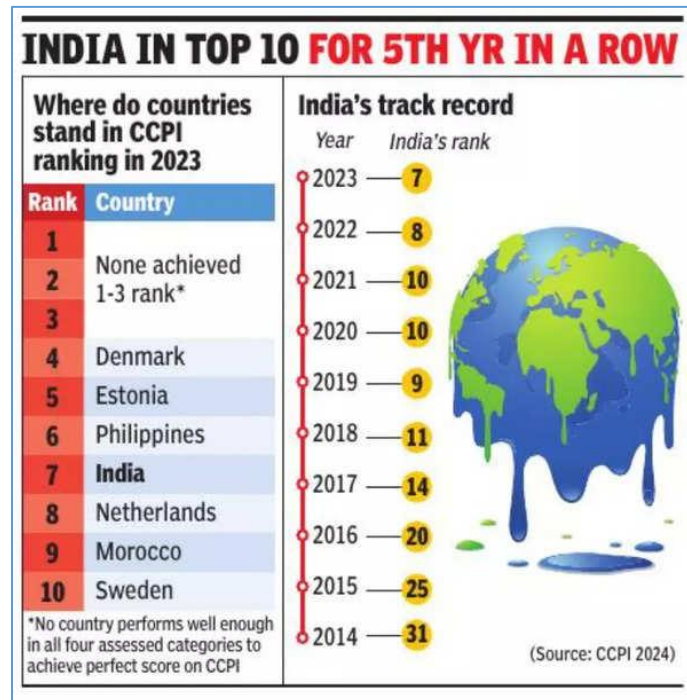
- ❖ Scientists in China have created a First-of-its-Kind, chimera (mixed) monkey with distinctive features like green eyes and glowing fingertips.

- ❖ It was the world's first live birth of a chimeric - or mixed - monkey with stem cells.
- ❖ The lab-born monkey survived for 10 days after which it was euthanised.
- ❖ Chimeric mice were first created in the 1960s and have been commonly used in biomedical research.



REPORTS AND INDICES

Climate Change Performance Index (CCPI) 2024



- ❖ India has been ranked seventh in climate performance during 2022.

- ❖ But the country is effectively fourth as no one has occupied the first three ranks in the 'very high' performance category.
- ❖ Denmark retained the top spot (4th) with a score of 75.59 per cent.
- ❖ Estonia and the Philippines occupied the second and third ranks respectively, with 72.07 and 70.70.
- ❖ India followed closely with 70.25 per cent.
- ❖ Saudi Arabia was at the bottom — 67th — in the performance list.
- ❖ The COP 28 host country, United Arab Emirates occupied the 65th position.

STATES

Chhattisgarh's New Chief Minister



- ❖ Vishnu Deo Sai (59) was chosen as the new Chief Minister of Chhattisgarh Assembly.
- ❖ He is a four-time MP, three-time MLA, and had been the State BJP president twice.
- ❖ His party (BJP) won 54 seats in the 90-member Assembly in the recently held assembly election.

4E Wave movement

- ❖ 4E Wave, a Jammu student-led National Movement for Energy Conservation, was launched recently.
- ❖ The movement strives to promote sustainable practices and instil a sense of responsibility in individuals and communities to save energy.

- ❖ 4E Wave encapsulates four key elements:
 - Eco-friendliness: Promoting energy-saving practices that are environmentally friendly
 - Economy: Emphasizing energy-saving solutions that lead to economic benefits for individuals and communities
 - Education: Focusing on educating the public about energy-saving methods and their importance
 - Empowerment: Empowering individuals and communities to take active roles in conserving energy



MISCELLANEOUS

DRESS Syndrome



- ❖ The Indian Pharmacopoeia Commission (IPC) issued a safety alert regarding Mefal, a commonly sold painkiller.



- ❖ The drug's potential to cause a reaction known as Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) syndrome.
- ❖ DRESS syndrome (Drug Rash with Eosinophilia and Systemic Symptoms) is an adverse reaction term that is currently used to describe a hypersensitivity reaction.
- ❖ Experts classify DRESS syndrome as a type 4 hypersensitivity reaction.
- ❖ It is a serious drug reaction affecting the skin and other organs, with a mortality rate of up to 10%.

