

NEWS TODAY

RESEARCHERS PROPOSE RADICAL NEW WAY TO SETTLE UNIVERSE EXPANSION DISPUTE

- **Universe began** nearly **13.7 billion years ago** - in an event that astronomers **called big bang**- as just a single point, then **expanded and stretched** to grow as large as it is right now—and **it is still stretching**.
 - In 1929, **Edwin Hubble provided first mathematical description** of **universe's expansion**.
 - However finding precise rate of universe's expansion, called the Hubble constant, remains a challenge.
- **Hubble constant is calculated by:**
 - Comparing observed **brightness of a supernova**, the largest explosion of a star that takes place in space
 - Analysing changes to **cosmic microwave background (CMB)**, radiation leftover from Big Bang event.
 - Using **gravitational waves**, ripples in spacetime produced when massive astronomical objects – like neutron stars or black holes – collide with each other.
- However, there is a **discrepancy in measuring Hubble constant** as all **three methods estimate** Hubble constant **based on information from different stages of the universe**.
 - **CMB is based on a much younger universe** while **other two** are based on **an older universe**.
- **Now researchers** including from India **proposed to study collection of Gravitational Lensing and their time delays to determine Hubble constant**.

ABOUT GRAVITATIONAL LENSING

- Gravitational lensing **occurs when massive objects distort and magnify light from objects behind them** (such as a galaxy or a quasar), acting as cosmic telescopes and making distant galaxies appear brighter.

FINANCE MINISTER PITCHED FOR FRAMEWORK TO HANDLE CHALLENGES OF CRYPTO ASSETS

- **Crypto asset** is a **type of digital asset** that uses cryptographic encryption algorithms as a means of creating an alternative form of payment **using distributed ledger technology (DLT)** or other similar technologies.
- Two **main classes** of crypto assets have emerged viz.
 - **Backed assets:** value **depends on reserve assets**. Hence, often referred to as stablecoins.
 - **Unbacked Assets:** not linked to any asset e.g., Bitcoin.
- **Challenges of crypto assets**
 - **Domestic stability**
 - Threatens the effectiveness of **monetary policy transmission and sovereignty**.
 - Undermines **tax revenue collection and compliance**.
 - **External stability**
 - higher gross **foreign capital positions**, and more **volatile capital flows**.
 - requires **changes to central banks' reserve holdings**.
 - Risk of **fragmenting global payments** due to the **use of closed-loop networks**.
 - **Others**
 - Can be used in **organized and transnational crime** owing to limited enforcement.
 - **Environmental sustainability** due to the high cost of operation of DLT networks.
- **Regulation in India**
 - There is **currently no regulation or ban on cryptocurrencies in India**.
 - **Under Union budget 2022-23**, a **30% tax** was imposed on any income from the transfer of **Virtual digital assets**.

MEASURES FOR CRYPTO ASSETS

- **Adopt measures against excessive capital flow volatility**
- **Analyse and disclose fiscal risks** and adopt **unambiguous tax treatment** of crypto assets
- Establish **legal certainty of crypto assets**
- Strengthen **global cooperation to develop digital infrastructures and alternative solutions for cross-border payments and finance**

INTERGOVERNMENTAL NEGOTIATING COMMITTEE (INC) RELEASED ZERO DRAFT OF GLOBAL TREATY TO END PLASTIC POLLUTION

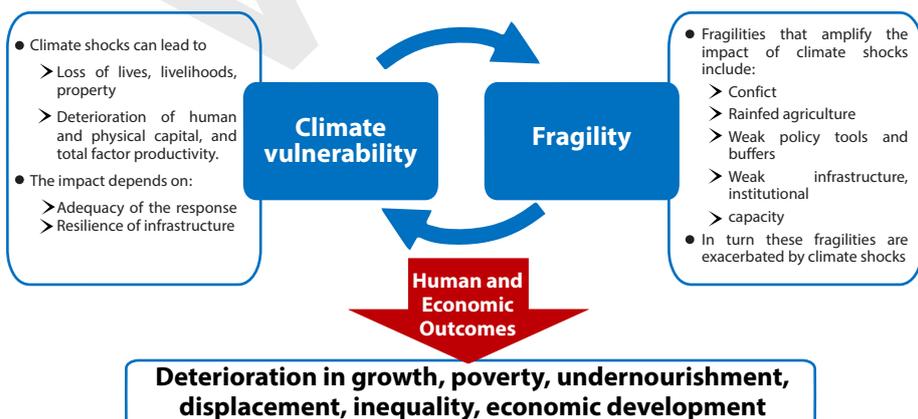
- **Formed by UNEP**, INC is tasked with **developing an international legally binding instrument on plastic pollution**, including in marine environments, which could include **both binding and voluntary approaches**.
 - Earlier, in **June 2023 in Paris**, INC-2 ended with a **mandate to prepare a zero draft of global treaty** on plastic pollution, **ahead of next session in Nairobi** (Kenya) in November 2023.
 - Aim is to **complete negotiations by the end of 2024** and create a **global, legally binding plastics treaty**.
- As per UNEP, about **400 million tonnes of plastic waste is produced globally** every year and it is forecasted to reach **1100 million tonnes by 2050**.
 - As per CPCB data, **4.1 million tonnes of plastic waste was generated** in India in 2020-21.
- **Key highlights of zero draft**
 - **Global bans on the highest-risk plastics**. Items may **not need to be single-use** to be banned, draft mentions **'short-lived' plastics**, too.
 - Each nation should **develop and implement a national plan** for its **contribution to the Treaty** (similar to Paris Agreement on climate change).

INITIATIVES TAKEN BY INDIA

- **Ban on identified Single Use Plastic (SUP) Items** from 1st July 2022
- Guidelines for **Extended Producer Responsibility** through **Plastic Waste Management Amendment Rules, 2021**.
- **Promotion of eco-alternatives** (sea-weed, bagasse, rice and wheat bran, banana and areca leaves, jute and cloth etc.) **to banned SUP items**, in line with **Lifestyle for Environment (LiFE) mission**.

CLIMATE CHALLENGES IN FRAGILE AND CONFLICT-AFFECTED STATES REPORT RELEASED BY IMF

- **Fragile and Conflict-Affected States (FCS)** are countries or territories that are **categorized by the World Bank Fragile, Conflict, and Violence group** according to their financial and security status,
- **Key Findings**
 - **Climate vulnerability** along with **fragility** will have a disastrous impact (**refer to image**).
 - FCS will **disproportionately suffer from climate change**, because of huge **dependence on agriculture**.
 - **GDP losses due to climate shocks are more severe** and persistent in FCS than in other countries.
 - **Climate Disaster-induced displacements** occur more in FCS than in other countries.
- **Recommendations**
 - Build **fiscal buffers** to facilitate **robust emergency responses**.
 - Strengthen the **social safety net** to **protect the most vulnerable**.
 - Develop **climate-smart agriculture** to build **resilience in agriculture production** and reduce food insecurity.
 - Implementation of **IMF's Resilience and Sustainability Facility (RSF)** to provide finance.
 - RSF (launched in 2022) is a loan **fund to help countries tackle longer-term challenges** such as climate change.



MINISTRY OF FINANCE NOTIFIED CHANGES IN THE PREVENTION OF MONEY LAUNDERING (MAINTENANCE OF RECORDS) RULES, 2005

- Amendments aim to **enlarge type and nature of individuals** who can come under **Prevention of Money Laundering Act (PMLA) ambit**.
- **Key amendments**
 - **Ownership rules**
 - A person having **ownership of more than 10%** (earlier limit 15%) of **capital or profits of a partnership** will be considered as a **beneficial owner**.
 - A **person who exercises control over partnership through other means**, will be treated as a **beneficial owner**.
 - **Definition of principal officer of a reporting entity** (banking company, financial institution, intermediaries etc)
 - Only an **officer at management level can be appointed as 'Principal Officer'**. Earlier, **reporting entity had discretion** to appoint any officer as 'Principal Officer'.
 - Reporting entity shall ensure that **in case of a Trust, trustees shall disclose their status or position** they occupy in the Trust.
 - **Reporting entities to keep client records for five years** after business relationship with client had ended or account has been closed, whichever is later
- PMLA was enacted in **2002 to prevent money laundering** and to provide for **confiscation of property derived from**, or involved in, money-laundering.
 - **Enforcement Directorate (ED)**, under Department of Revenue, **enforces PMLA**.

UPI QR CODE-CENTRAL BANK DIGITAL CURRENCY (CBDC) INTEROPERABILITY

- In order to strengthen the **CBDC retail digital rupee (e₹-R)**, few banks e.g., State Bank of India, Bank of Baroda, Yes Bank, etc. have introduced **UPI interoperability on their digital rupee application**.
- **Interoperability of UPI** with the **digital rupee** means **all UPI QR codes** are compatible with CBDC apps.
 - It will **ensure seamless transactions between a customer and merchant** without **having the need to switch** between **multiple digital platforms**.
- It will allow a **digital rupee user to make payments** for their **daily needs**, such as **groceries and medicines**, by **scanning** any UPI QR codes at any merchant outlet.
- **Even merchants** are not required to keep a separate QR code to accept the digital rupee payments.
 - They can accept CBDC payments on their **existing QR code**.
- **CBDC** is the **legal tender issued by a central bank in digital form**. It is of types i.e.,
 - **CBDC-Retail (e₹-R)**: used by **all private sector, non-financial consumers**, and businesses.
 - **CBDC-Wholesale (e₹-W)**: designed for **restricted access** by the **financial institution**.
- **UPI powers multiple bank accounts** into a **single mobile application** (of any participating bank), merging several banking features e.g., **Person-to-Person (P2P)**, **Person-to-Merchant (P2M)** payments, transfer of funds, etc.

ABOUT QR CODE

- **QR code** stands for **“Quick Response”** code, is a two-dimensional version of the barcode, in the form of black and white pixel patterns, containing data for a locator, an identifier, and web tracking.

ALSO IN NEWS



Minister without portfolio

- **Government of India (Allocation of Business) Rules, 1961** allows **President on advice of PM** to entrust responsibilities of **specified business to a union minister without portfolio**.
 - Several leaders such as **Lal Bahadur Shastri, V.K. Krishna Menon** (at Centre) and **J.Jayalithaa** (in Tamil Nadu) were **inducted as minister without portfolio**.
- A minister without a portfolio means **s/he will not have a department to handle or an office to attend**. But **s/he is entitled to all perquisites and privileges** of a minister.
- Such a minister **does not draw salary and emoluments in the capacity of a minister** but only as a member of legislative assembly.



UPI-ATM

- Hitachi Payment Services has unveiled **India's first ever' United Payments Interface (UPI) -ATM**.
- Set-up as a **White Label ATM (WLA)** in association with **National Payments Corporation of India (NPCI)**.
 - **WLA is owned and operated by non-banks** entities.
- **UPI-ATM** will provide **customers** with unified and secure card-less cash withdrawals.
- Allows users to **withdraw cash from multiple accounts** using the UPI app.



Justice Amitava Roy Committee

- Supreme Court sought views of the center and states on the **Justice Amitava Roy Committee** report on prison reforms.
- **Key observations**
 - Correctional justice system is **"evidently gender exclusionary"**.
 - **Increase in population of female prisoners** by 11.7% between 2014-19.
 - **Only 18%** of women prisoners are allotted **exclusive women's prison facilities**.
 - **All categories** (undertrials and convicted) of female prisoners are **lodged in the same wards**.
 - **Poor access to basic facilities** e.g, medical care, legal aid, etc.
- **Recommendations:** Telemedicine consultation, vocational training, sensitization training of **prison staff, counseling of women prisoners with psychosomatic disorders** or victims of sexual abuse, etc.



Malaviya Mission - Teachers Training Programme (MM-TTP)

- **University Grants Commission's MM-TTP** was launched.
 - About MM-TTP**
 - It is proposed by **restructuring of existing schemes of capacity building of teachers** under Department of Higher Education.
 - It envisages **capacity-building training for the faculty and staff across higher educational institutions (HEIs)**, in the light of **National Education Policy (NEP) 2020** within **two years through multiple training centres**.
 - **Human Resource Development Centres (HRDCs)** will also be **renamed as Madan Mohan Malaviya Teachers' Training Centre**.

 <p>Jal Jeevan Mission (JJM)</p>	<ul style="list-style-type: none"> JJM has achieved a total of 13 Crore Rural Households Tap Connections. It is a Centrally Sponsored Scheme (launched in 2019) by the Ministry of Jal Shakti. Aims: Provide functional Household Tap Connection (FHTC) to every rural household i.e., Har Ghar Nal Se Jal (HGNSJ) by 2024. Significance of JJM: Access to safe and clean drinking water, Improvement in ease of living, Empowers women etc.
 <p>Ecocide</p>	<ul style="list-style-type: none"> Ecocide refers to unlawful or wanton acts committed with knowledge that there is a substantial likelihood of widespread or long term damage to environment being caused by those acts. <ul style="list-style-type: none"> ➤ Arthur Galston, in 1970, was first to link environmental destruction with genocide when referring to use of Agent Orange (a herbicide) by US during Vietnam War. Ecocide is currently recognised as a crime in several countries. <ul style="list-style-type: none"> ➤ Though used in certain cases as references by Courts, India is yet to make it an offence.
 <p>United Nations World Tourism Organization (UNWTO)</p>	<div style="border: 1px solid blue; padding: 10px;"> <div style="display: flex; justify-content: space-between; align-items: center;">  <h2 style="margin: 0;">UNWTO</h2> <div style="text-align: right;">  <p>HQ: Madrid (Spain)</p> </div> </div> <div style="margin-top: 10px;"> <p>About: UN agency responsible for promotion of responsible, sustainable and universally accessible tourism.</p> <p>Objectives:</p> <ul style="list-style-type: none"> ➤ Mainstreaming tourism in the global agenda ➤ Promoting sustainable tourism development ➤ Fostering knowledge, education and capacity building ➤ Improving tourism competitiveness <p>Organisational Structure:</p> <ul style="list-style-type: none"> ➤ General Assembly acts as a supreme body and ➤ Executive Council takes all measures, in consultation with Secretary-General <p>Members: Has 159 Member States and over 500 Affiliate Members.  Member</p> </div> </div>
 <p>Dancing Girl Sculpture</p>	<ul style="list-style-type: none"> Dancing Girl Sculpture belongs to the Mohenjodaro, an Indus Valley Civilization (IVC) site, dated to circa 2500 BCE. It is made up of bronze. Sculpture is named as Dancing Girl owing to her posture, with her right hand on the back of her hip and the left hand resting on her left thigh. She is adorned by a necklace alongside some bangles. Sculpture was made using the 'Lost Wax' method wherein molten wax is poured into a mould to create a model.
 <p>Places in News</p>	<ul style="list-style-type: none"> Cuba (Capita: Havana) Cuban Foreign Ministry stated that it uncovered a human trafficking ring aimed at recruiting Cubans to fight for Russia in its war in Ukraine. Political Boundaries <ul style="list-style-type: none"> ➤ Neighbouring country includes Haiti; Jamaica; Bahamas archipelago; and US (north across Straits of Florida). Geographical features <ul style="list-style-type: none"> ➤ Cuba is the largest island in the Caribbean Sea. ➤ Forms an important segment of the Antilles (West Indies) island chain. ➤ Situated just south of Tropic of Cancer at intersection of Atlantic Ocean, Gulf of Mexico, and Caribbean Sea. ➤ Major River: Cauto. ➤ Highest Peak: Turquino Peak. 