

NEWS TODAY

Permafrost melting emerges as a new environmental threat in Kashmir Himalayas

A new Study published in **Remote Sensing Applications: Society and Environment** assessed the implications of permafrost degradation-related hazards in the Jammu & Kashmir (J&K) Himalayas.

➤ Permafrost is any ground that remains completely frozen—32°F (0°C) or colder for at least two years straight.

Key Findings of the Study

- Permafrost covers **64.8%** of the total geographic area of J&K and Ladakh.
 - ⊕ Of this **26.7%** is continuous permafrost (most of the soil is frozen), **23.8%** is discontinuous (more than half of the soil is frozen), and **14.3%** is sporadic (intermittent patches of frozen soil).
- Identified **332 proglacial lakes**, of which 65 have differing glacial lake outburst flood (GLOF) risks. E.g., Chamoli (2021) and South Lhonak (2023) disasters linked to permafrost degradation
 - ⊕ **Proglacial Lake** is formed when water from a melting glacier collects in a depression in the landscape or when its flow is dammed.
- **Infrastructure and Security Risks:** Many strategic roads pass through permafrost zones in Ladakh.
- **Hydrological Changes:** Impact on river flow and groundwater availability
- **Reasons for degradation:** Rising surface temperatures are the main driver; **natural events** such as earthquakes triggered permafrost breakdown; **human activities** like deforestation, real estate, dams, roads, etc.

Way Forward

- **Integrated planning:** Incorporate permafrost and cryosphere data into regional infrastructure and land-use planning, risk-sensitive zoning regulations, etc.
- **Enhanced Monitoring:** Utilize satellite-based remote sensing and ground-based LiDAR technology to track permafrost degradation and associated geomorphological changes.
- **Comprehensive Environmental Impact Assessments:** Strengthen EIA frameworks to explicitly assess risks from permafrost thaw, including its role in triggering **Glacial Lake Outburst Floods (GLOFs), landslides, and slope instability.**

Over half of global crop production dependent on just 9 crops: FAO

According to third Report on State of World's Plant Genetic Resources for Food and Agriculture, these Nine crops include **Sugarcane, maize, rice, wheat, potatoes, soybeans, oil palm, sugar beet, and cassava.**

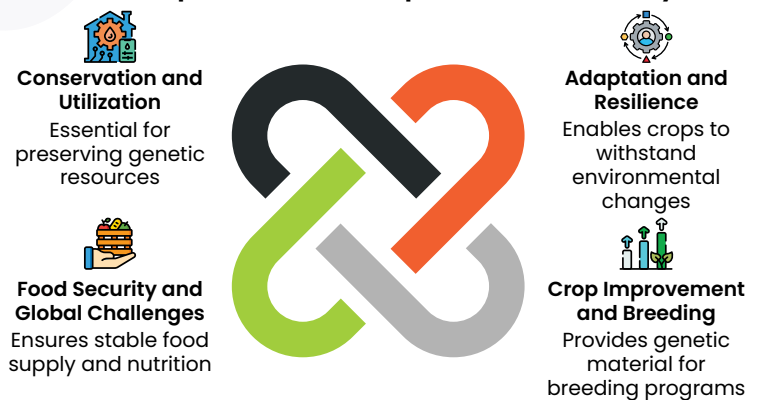
Other Key findings of Report related to crop diversity:

- **Reduce Plant Diversity:** Diversity at both species and variety levels is being replaced by **uniformity in agricultural marketplace.**
 - ⊕ To support commercial production systems, varieties are bred to meet the strict needs of **high-input production, industrial processing and demanding market standards.**
- **Loss of Farmer Varieties & Landraces (FV/LR)**
 - ⊕ **Highest percentage of threatened diversity** was found in southern Africa, followed by Caribbean and Western Asia.
 - ⊕ Southern Asia, Australia & New Zealand had **least genetic erosion.**
- **On-Farm Conservation of Plant Diversity:** Over **50% of FV/LRs across five agro ecological zones** in India are considered **threatened**, requiring urgent conservation measures.
- **Challenge to Ex-Situ Conservation of Plant Genetic diversity:** Sporadic funding, lack of qualified staff & Political support, and poor infrastructure.


Recommendations for Enhancing Crop/plant diversity:

- **Seed Policy:** Need to develop national seed policies that support diverse cropping systems.
- **Increased public and private sector funding:** For Plant Genetic Resources for Food and Agriculture.
- **Improve data sharing and standardization:** To enhance research efficiency.
- **Promote modern biotechnologies** for improved crop breeding.

The Importance of Crop Genetic Diversity




Conservation and Utilization
Essential for preserving genetic resources



Adaptation and Resilience
Enables crops to withstand environmental changes

Food Security and Global Challenges
Ensures stable food supply and nutrition



Crop Improvement and Breeding
Provides genetic material for breeding programs

Efforts taken for conserving Crop Diversity

- **Globally**
 - ⊕ **Svalbard Global Seed Vault:** Secure backup facility for world's crop diversity on Norwegian island of Spitsbergen.
 - ⊕ **Leipzig Declaration:** For conservation plant genetic resources (PGR) for food and agriculture
- **India**
 - ⊕ **Seed Bank Scheme:** Certified seeds produced in country will be kept in buffer stock.
 - ⊕ **National Bureau of Plant Genetic Resources (NBPGR):** Nodal organization for management of PGR in India.

Chief Justice of India (CJI) initiated an in-house inquiry into conduct of Delhi High Court (HC) judge

Internal inquiry will be carried out by a 3 member committee consisting of Chief Justice (CJ) of Punjab & Haryana HC, Himachal Pradesh HC & Karnataka HC.

About Judiciary's In-House Enquiry Procedure

- **Origin:** Introduced by SC after noticing a gap in law to tackle judicial misconduct not severe enough for impeachment (under Article 124) but inconsistent with standards of judicial office during *C. Ravichandran Iyer v. Justice A.M. Bhattacharjee (1995) Case*.
 - ⊕ In 2014, a seven-step "in-house procedure" for inquiry was laid down by SC in *Additional District and Sessions Judge 'X' vs Registrar General, Madhya Pradesh HC (2014)*.
- **Procedure**
 - ⊕ **Initiation:** Complaints can be lodged with either CJ of HC, CJI, or President of India (forwarded to CJI).
 - ⊕ **Preliminary Review:** If allegations are found to be credible, the CJI may request a preliminary report from the CJ of the relevant HC.
 - ⊕ **Further Probe:**
 - ◆ If CJ of HC recommends further investigation, CJI may then constitute a three-member inquiry committee (Two HC CJ from other high courts and one HC judge)
 - » Committee can design its own procedure, adhering to natural justice principles (e.g., allowing accused judges to present their case).
 - ⊕ **Outcome:**
 - ◆ The committee submits a report to the CJI and also with the accused judge. If the committee deems allegations to be serious, the CJI will advise the judge to resign or retire.
 - » If refused, the CJI will direct the HC Chief Justice to withhold judicial work from the judge and notify the President and Prime Minister to start removal proceedings.

Removal Proceedings of Judges under Constitution of India

- **Article 124(4):** Provides for impeachment of a judge of a supreme court.
 - ⊕ **Article 217** says the same provisions shall apply to a judge of the High Court as well.
- **Grounds:** Proven misbehaviour and incapacity (Not defined in the Constitution).
- Procedure is regulated by **Judges Enquiry Act (1968)**.

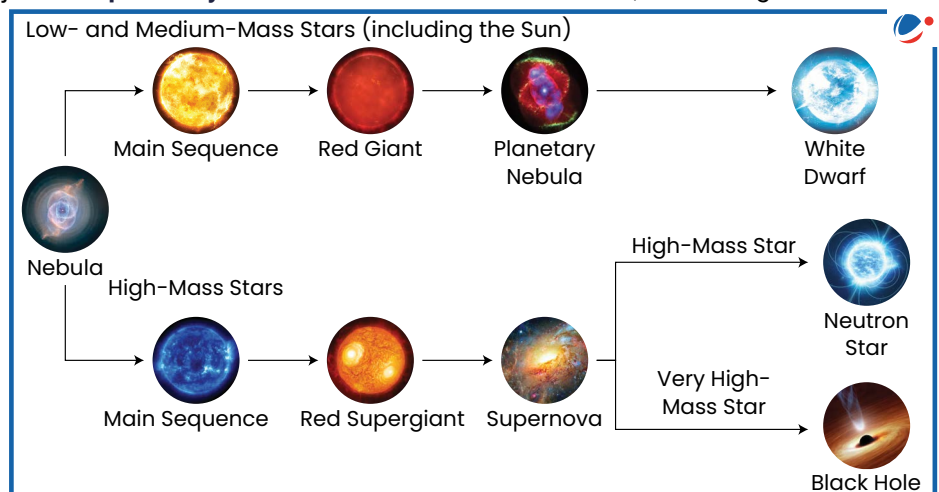
James Webb Space Telescope (JWST) captures a Star in making

Released by the NASA and European Space Agency, composite images of plume of gas and dust streaming from a star are from about 625 light-years from Earth in one of the closest star-forming regions of our Milky Way galaxy.

- Considered as successor to the Hubble Space Telescope, JWST is an advanced space-based observatory launched in 2021 to study universe, primarily in the infrared spectrum.

Life Cycle of a Star

- **Nebula (Birth):** A star starts as a nebula, a large cloud of gas (mainly hydrogen and helium) and dust.
 - ⊕ **Protostar:** Gravity collapses nebula into dense, heating, spinning regions that form a protostellar disk.
- **Main Sequence:** It is the star's longest phase, steadily fusing hydrogen into helium in its core.
 - ⊕ Our Sun is about halfway through its main sequence.
- **Red Giant or Supergiant:** When hydrogen in the core is depleted, the star evolves based on its mass.
 - ⊕ **Low to Medium Mass Stars (e.g., the Sun):** Core contracts, outer layers expand, and star becomes a red giant.
 - ⊕ **Massive Stars:** Expand into supergiants, fusing heavier elements (e.g., carbon, oxygen, up to iron) in successive stages.
- **End Stage**
 - ⊕ **Low to Medium Mass Stars:** Outer layers eject as a planetary nebula and core becomes a dense, non-fusing white dwarf.
 - ◆ If its mass stays below the Chandrasekhar Limit (1.4 solar masses), it remains stable.
 - ⊕ **High Mass Stars (10 solar masses or more):** When the core accumulates iron, it collapses under gravity and rebounds in a catastrophic explosion called supernova.
 - ◆ If the core remnant is 1.4–3 solar masses, it becomes an incredibly dense neutron star.
 - ◆ If the remnant exceeds ~3 solar masses, it collapses into a black hole, with gravity so strong that not even light escapes.



Rajya Sabha passes the Disaster Management (Amendment) Bill, 2024

The bill attempts to take the fight against disasters from a reactive approach to a proactive one and also beyond to an innovative and a participatory approach.

Key Highlights of the Bill

- **Preparation of disaster management plans:** National Disaster Management Authority (NDMA) and State Disaster Management Authority (SDMA) will prepare disaster management plans.
- **Functions of NDMA and SDMA:** Adds new functions like periodic review of disaster risks (including extreme climate events), setting guidelines for minimum relief standards, creating national and state disaster databases, etc.
- **Appointments to NDMA:** Empowers NDMA to specify the number and category of officers and employees, with previous approval of the central government.
- **Urban Disaster Management Authorities:** Empowers state governments to constitute a separate authority for state capitals and cities with a municipal corporation.
- **State Disaster Response Force (SDRF):** Allows state governments to establish SDRF, define its functions, and set service terms for its members.
- **Statutory status to existing committees:** Provides statutory status to existing bodies such as the National Crisis Management Committee (NCMC) and the High Level Committee (HLC).
 - ⊕ NCMC will function as the nodal body for dealing with major disasters with serious or national ramifications.
 - ⊕ HLC will provide financial assistance to state governments during disasters.

Disaster Management Act, 2005

- The Act provides for the legal and institutional framework for the effective management of disasters.
- **Institutional Framework:** Establishes NDMA, SDMA, District Disaster Management Authorities (DDMAs) as the bodies responsible for disaster preparedness and risk reduction at respective levels.
- **Financial Mechanism:** Provides for the creation of the National Disaster Response Fund (NDRF) and State Disaster Response Funds (SDRF), National Disaster Mitigation Fund and similar funds at state and district level.

India plans to eliminate the 6% equalization levy on online advertising services

As per the new amendments proposed in Finance Act 2016, Equalization levy or digital tax on online advertisements will not apply on or after April 1, 2025.

Equalization Levy

- It is a direct tax introduced by Finance Act, 2016, taxing digital transactions i.e. income accruing to foreign e-commerce companies from India.
 - ⊕ This covers income from advertising also which is aimed at taxing business to business transactions.
- Finance Act 2020 has extended scope of this levy to e-commerce supply and services.

Reasons for its Imposition

- **Fair Competition:** It aimed to level the playing field for domestic and international companies.
- **Bridging Tax Gaps:** Prevents companies from avoiding taxation due to a lack of physical presence in India.
- **Taxing Foreign Digital Companies:** Ensures that foreign e-commerce giants contribute to India's tax system.
- **Revenue Collection Opportunity:** Recognizes the boom in digital transactions, further accelerated by COVID-19.

Associated Concerns

- **Trade friction with the US:** Foreign trade barrier report mentions Equalization levy as barrier to overseas trade.
- **Risk of Retaliatory Tariffs:** Other nations may impose countermeasures, affecting Indian companies operating overseas.
- **Double Taxation & Compliance Burden:** Foreign companies may face dual taxation, increasing their costs.

Transactions subjected to equalisation levy

- **Online Advertisement Services:** Rate 6% on consideration paid to non-residents.
 - ⊕ Applies to Digital advertising space, Online advertisement and related facilities and services.
- **E-commerce supply of goods or services (abolished on August 1, 2024):** Rate 2% on revenue received by non-resident e-commerce operators.
- **Condition:** As levy was not introduced as part of Income Tax Act, global firms that pay Equalisation levy in India cannot claim a tax credit in their home country under double taxation avoidance agreements.

Also In News



Vikramshila University

A decade after Nalanda University came up in the foothills of Rajgir, work is on to revive another ancient centre of learning in Bihar i.e. Vikramshila.

About Vikramshila University

- **Founded:** By Pala king Dharmapala (8th-9th Century AD), it thrived alongside Nalanda.
 - ⊕ He also founded Somapur Mahavihara in modern Bangladesh.
- Known for Vajrayana/Tantrayana Buddhism, occult studies, and theological disciplines.
- Scholars from Tibet came to study here. Many manuscripts were written in Sanskrit and also translated into Tibetan.
- Atisha Dipankar (980-1054), a Buddhist in the Pala kingdom was an adhyaksha (head of the university) here.
- Destroyed in late 12th century by Bakhtiyar Khalji, a military commander of Qutubuddin Aibak.



Regional Rural Bank (RRB)

RRBs achieved a record Rs.7,571 crore profit in FY 2023-24; key financial indicators like CRAR, deposits, NPAs, CD Ratio also showed steady improvement.

About RRB

- **Genesis:** Formed in 1975 under the RRB Act, 1976.
- **Ownership:** Jointly owned by Government of India (GOI), Sponsor Bank and concerned State Government and with share proportion of 50%, 35% & 15% respectively.
- **Regulation:** Regulated by Reserve Bank of India (RBI) and supervised by NABARD.
- **Aim:** Development of agriculture, trade, commerce, industry and other productive activities in the rural areas.
- **Priority Sector Lending:** Revised to 75% in 2016 of total lending within the sub-targets set by RBI.



Safe Harbour Rule

Recently, Central Board of Direct Taxes (CBDT) notified amendments to Income-tax Rules to increase the threshold for availing safe harbour from Rs 200 crore to Rs 300 crore.

About Safe Harbour Rule

- **Critical component of India's transfer pricing framework**, Aims to reduce litigation by allowing eligible taxpayers to adopt predefined prices for specified international transactions.
- Safe harbour rules are **defined under Section 92CB of the Income-tax Act, 1961** for the determination of **arm's length price**.
- **Safe harbour** means circumstances in which the income-tax authorities **accept the transfer price as declared by the assessee**.
 - ⊕ Transfer Price is **actual price charged in a transaction** between related entities which are part of same multi national enterprise group.
 - ⊕ An arm's length price is price that would be agreed upon in a transaction between two independent, unrelated parties, **under open market conditions**.



Gold Monetisation Scheme

Medium Term and Long Term Government Deposit (MLTGD) components of Gold Monetisation Scheme (GMS) discontinued with effect from March 26, 2025.

About Gold Monetization Scheme

- **Launched in:** 2015.
- **Aim:** To reduce gold imports and mobilize household & institutional gold for productive use.
- **Implemented by:** All Scheduled Commercial Banks excluding Regional Rural Banks (RRBs).
- **Categories under the scheme**
 - ⊕ **Short-Term Bank Deposit (STBD):** 1-3 years (Managed by banks).
 - ⊕ **Medium-Term Government Deposit (MTGD):** 5-7 years.
 - ⊕ **Long-Term Government Deposit (LTGD):** 12-15 years.
- **Existing deposits under Medium Term and Long Term Government Deposit will continue till maturity** as per existing RBI guidelines.



Control of Pollution Scheme

Department-related standing committee on science and technology, environment, forests and climate change raised concerns over **inadequate expenditure under the Control of Pollution Scheme in the FY 2024-25**.

About the Control of Pollution Scheme

- **Administered by:** Ministry of Environment, Forest & Climate Change
- **Type:** Central Sector Scheme.
- **Operational:** Since 2018.
- **Objective:** To monitor air quality across the country and take appropriate air pollution mitigation measures, besides monitoring water quality and noise levels in the country.
- **Components:**
 - ⊕ Assistance for Abatement of Pollution to weaker State Pollution Control Boards/ Pollution Control Committees and CPCB.
 - ⊕ National Clean Air Programme (NCAP).
 - ⊕ Environmental Monitoring Network Programm
 - ⊕ Research and Outreach Programmes



BHIM 3.0

National Payments Corporation of India (NPCI) has recently launched the **BHIM (BHarat Interface for Money) 3.0**.

Salient Features of BHIM 3.0

- **Expanded language support:** Now available in 15+ Indian languages.
- **Allows to track, manage, and split expenses** with ease.
- **Optimised for low internet areas:** Ensures uninterrupted transactions even in regions with weak or unstable network connectivity.
- **Built-in task assistant:** To remind users of pending bills, UPI Lite activation, and low balance alerts.
- **BHIM Vega:** A seamless in-app payment solution that integrates directly with online merchant platforms, allowing interoperability with third-party applications.



Finance Bill

Recently, Lok Sabha passed the Finance Bill 2025.

About Finance Bill

- The Constitution divides financial legislation into **two categories viz., Money Bills (Article 110) and Financial Bills (Article 117)**.
- **Two Categories:**
 - ⊕ **Article 117(1):** which make provision for any of the matters which **come within the definition of a Money Bill but do not consist solely of these matters;**
 - ◆ can be **introduced only in Lok Sabha** and it **requires the recommendation of the President** for its introduction.
 - ⊕ **Article 117(3):** those which, if enacted, and brought into operation, would **involve expenditure from the Consolidated Fund of India**.
 - ◆ **may be introduced in either House** and it **does not require the recommendation of the President** for its introduction.
 - ◆ **It cannot, however, be passed by either House unless the President has recommended** to that House the consideration thereof.
- **Rajya Sabha** can reject or amend these Bills **like ordinary Bills**.

Places in News



Türkiye (Capital: Ankara)

Protesters erupted in Turkey over the arrest of President Erdogan's political rival.

Political Features

- **Location:** It lies **partly in Asia and partly in Europe**.
- **Borders:** **Georgia and Armenia** (northeast), **Greece and Bulgaria** (northwest), **Azerbaijan and Iran** (east), and **Iraq and Syria** (southeast).
- Surrounded by **Black Sea** (north), **Mediterranean Sea and Aegean Sea** (Southwest, West).

Geographical Features

- **Major Rivers:** Euphrates, Tigris and **Kizilirmak**.
- **Highest Point:** Mount Ararat
- **Important Straits:** Bosphorus strait and Dardanallaise strait
 - ⊕ **Sea of Marmara:** An inland sea, **connects the Black Sea and Aegean Sea** via the Bosphorus and Dardanelles strait.



AHMEDABAD



BENGALURU



BHOPAL



CHANDIGARH



DELHI



GUWAHATI



HYDERABAD



JAIPUR



JODHPUR



LUCKNOW



PRAYAGRAJ



PUNE



RANCHI