

NEWS TODAY

District-Level Climate Risk Assessment Report for India: Mapping Flood and Drought Risks Using IPCC Framework

The report was released by **Indian Institute of Technology (IIT) Guwahati**, in collaboration with **IIT Mandi** and the **Centre for Study of Science, Technology, and Policy (CSTEP)**, Bengaluru.

- It uses the **Intergovernmental Panel on Climate Change (IPCC) framework**, and identifies the dual challenges posed by **floods and droughts** and highlights their **disproportionate impact on vulnerable populations**.

Key findings of the report

- Flood risk assessment:** **Fifty-one** districts fall into the **'Very High'** flood risk category, and **another 118** districts fall into the **'High'** flood risk category.
 - These are primarily in **Assam, Bihar, Uttar Pradesh, West Bengal, Gujarat, Odisha, and Jammu and Kashmir**.
- Drought Risk Assessment:** **Ninety-one** districts fall in the **'Very High'** drought risk category and another **188** districts in the **'High'** drought risk category.
 - These are primarily in **Bihar, Assam, Jharkhand, Odisha, and Maharashtra**.
- Dual Risk of Flood and Drought:** **11** districts are at **'Very High'** risk of both **flood and drought**.

Definition of Drought and Flood according to India Meteorological Department (IMD)

- Drought:** It is defined for any area when the rainfall deficiency in that area is **≥26% of its long term normal**.
 - It is further classified into **moderate and severe drought** depending upon whether the deficiency is between **26 to 50%** and **more than 50%** respectively.
- Flood:** It is defined as an **overflow of water that submerges normally dry land**.
 - It occurs due to **heavy rainfall, cyclonic events, or when rivers or other water bodies exceed their capacity**.

Way forward

- Multi-Scale and Sectoral Approach:** to assess risks for various sectors and at various levels.
- Risk Assessment under Climate Change Scenarios:** Incorporate future climate scenarios in risk assessment.
- Capacity Building:** Continuously improve the skills of state and district administrators.
- Emerging Risks:** Update frameworks to include new threats like **landslides, heat stress, and compound events**.

IndiaAI seeks Proposal for Ethical use of AI

Proposal has been sought under IndiaAI Mission, the **Safe & Trusted AI** pillar, recognizing the need for adequate guardrails to advance the responsible adoption of AI and enable the development of indigenous tools and frameworks.

- IndiaAI**, an Independent Business Division (IBD) under the **Union Ministry of Electronics and IT (MeitY)**, is the **implementation agency of the IndiaAI Mission**.
- Need for ethical AI framework includes prevention of biasness and discrimination in AI Systems, promotion of transparency and accountability in AI decision-making, encouraging societal awareness, among others.

Themes identified for Safe and Trusted AI

- Watermarking & Labelling:** Develop tools to authenticate AI-generated content, ensuring it's traceable, secure, and free of harmful materials.
- Ethical AI Frameworks:** Establish AI frameworks that align with global standards, ensuring AI respects human values and promotes fairness.
- AI Risk Assessment & Management:** Create risk management tools and frameworks to enhance the safe deployment of AI in public services.
- Stress Testing Tools:** Create stress-testing tools to evaluate how AI models perform under extreme scenarios, detect vulnerabilities, and build trust in AI for critical applications.
- Deepfake Detection Tools:** Create Deepfake Detection Tools to enable real-time identification and mitigation of deepfakes, preventing misinformation and harm for a secure and trustworthy digital ecosystem.

Other Initiatives for promotion of Ethical AI Global

- OECD Principles on AI:** A set of guidelines emphasizing fairness, transparency, and accountability in AI.
- UNESCO 'Recommendation on the Ethics of Artificial Intelligence'** adopted in 2021.

Indian

- National Strategy for AI (NITI Aayog):** A framework for fostering responsible AI development in India, focusing on inclusivity and fairness.
- Responsible AI #AIForAll by NITI Aayog:** Guidelines focusing on transparency, bias mitigation, and privacy-respecting AI systems.

Banking Regulation Act, 1949 completes 75 Years

The Act aimed at **regulation and supervision of the banking sector** to maintain operational integrity of banking system and protect depositor's interests in India.

- Before independence, regulation of banks was done through the **Companies Act (1850) and Reserve Bank of India Act, 1934.**

Achievements of the Banking Regulation Act, 1949

- **Inclusion and Outreach:** Through initiatives like the 'Priority Sector Lending' under the Act has been a tool to direct credit towards agriculture and small industries.
- **Stabilization:** Played a crucial role in maintaining banking sector stability during various economic cycles.
 - ⊕ e.g., Regulatory measures under the Act, like capital adequacy requirements and liquidity coverage ratio, insulated Indian banks from the effects of the **global financial crisis (2008).**
- **Trust Building:** Increased public confidence in banks due to regulatory oversight and depositor protection.
 - ⊕ **Prompt Corrective Action (PCA) Framework:** Introduced by RBI under the Act helps in identifying financial distress early and mandates corrective measures.
- **Adaptation:** Adjusted to meet new challenges like digital banking, financial inclusion, and global financial standards.
 - ⊕ e.g., Introduction of **Payment Banks in 2014 and Small Finance Banks in 2016.**

Key Provisions of the Banking Regulation Act, 1949

- **Licensing and Operations:** Banks must obtain RBI's license to operate; rules on branch openings and closures.
- **Management Oversight:** RBI's control over board composition, appointment of directors, management practices, etc.
- **Financial Stability:** Requirements for cash reserves, liquid assets, and restrictions on dividends.
- **Public Disclosure:** To promote transparency in banking operations through mandatory audits and public disclosure of financial statements.

"Agritech for Women Farmers: A Business Case for Inclusive Growth" Report released by WEF

Report by World Economic Forum (WEF) presents a global overview of gender-inclusive AgriTech and highlights how gender inclusive AgriTech can help women farmers achieve their full potential.

Need of Gender inclusive AgriTech for Women Farmers (as highlighted in the Report)

- **Feminization of agriculture:** In India, women's participation is notably higher, **nearly 50% across commercial value chains** such as cotton, sugarcane, tea, coffee and cashews.
 - ⊕ Despite their substantial participation, **women earn up to 60% less than men** and face limited access to finance, training and technology.
- **Efficiency:** By transitioning to data driven planning of production, AgriTech can reduce both food loss and food waste and enable businesses to make their supply chains more efficient and resilient.
- **Business imperative:** Position gender-inclusive AgriTech as a strategic business imperative for the private sector.

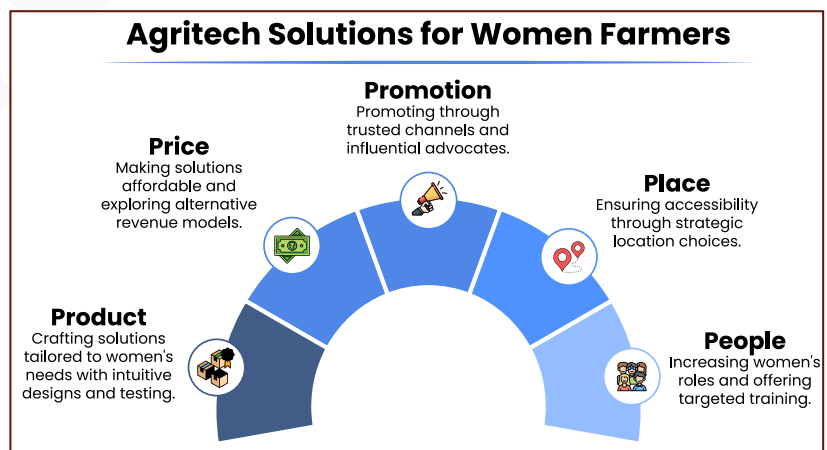
Challenges for Women Farmers in adapting AgriTech

Demand side

- **Sociocultural barriers:** Perceptions about gender roles and biases, restrictions on mobility, and safety and security concerns.
- **Limited access to resources:** Limited land ownership hinders access to formal credit and other farm extension services.
- **Literacy barriers:** low education and digital literacy restricts awareness.

Supply-side

- **Access to gender-disaggregated data:** Lack of comprehensive data to differentiate between experiences of male and female farmers in accessing and using AgriTech services.
- **Support system gaps:** Limited mentorship and peer learning, weak coordination between agricultural research and extension services, etc.



Supreme Court (SC) Took Exception of Long Term Temporary Employment In Public Institution

In **Jaggo & Ors. vs. Union of India & Ors.**, SC criticized misuse of temporary contracts in public institutions, stating it erodes public trust and undermines justice.

Case Highlights

- **Context:** Four housekeeping staff of Central Water Commission were employed on ad hoc terms for over 20 years before abrupt termination in 2018.
- **Ruling:** SC quashed their termination, ordered reinstatement, and directed their regularization.

Issues Highlighted by the SC

- **Rise in Systemic Exploitation of workers In Gig Economy:** The private sector's gig economy growth has increased precarious work arrangements, leaving workers without essential benefits, job security, and fair treatment.
- **Outsourcing in Public Sector:** Public institutions are avoiding regular employment obligations by repeatedly outsourcing temporary positions, creating a cycle of worker exploitation.
- **Rule Violations and Moral Impact:** Long-term use of temporary workers for essential roles violates international labor standards, risking legal challenges for organization and undermining employee morale.

Other cases related to Employment in Public Sector

- **State of Karnataka vs. Uma Devi:** Long-term irregular employees performing essential duties should be considered for regularization.
- **Vinod Kumar and Ors. Etc. Vs. Union of India & Ors:** Procedural technicalities cannot prevent regularization when "temporary" workers have performed regular employee duties for extended periods.

About GIG Economy in India

- Gig workforce is expected to expand from 7.7 million in 2020-21 to **23.5 million by 2029-30 (NITI Aayog report)**.
- **Code on Social Security, 2020:** Defines Gig worker and provides for extension of social security benefits to gig workers as well.
- **Occupational Safety, Health and Working Conditions Code, 2020:** To promote safe and healthy work environment and it also regulates contract labour.

'Standing Committee on Railways' Releases Report Focusing On Railway Modernization And Financial Sustainability

Key issues highlighted

- **Financial:** Most of the earnings of Indian Railways comes from its freight services.
 - ⊕ In 2023-24, Indian Railways earned revenue of Rs 1,68,293 from freight and Rs 70,693.33 from passenger services
- **Operational:** Average freight train speed remains stagnant at 25 km/hr over past 11 years.
- **Safety:** Slow Implementation of KAVACH system with only 1,465 route km in South Central Railway and 80 route km in North Central Railway.
 - ⊕ Kavach aids the Loco Pilot in running of train within specified speed limits by automatic application of brakes in case Loco Pilot fails to do so and also helps the trains to run safely during inclement weather.
- **R&D Budget:** Only Rs 72.01 crore (including PPP projects) was allocated for Railway Research in 2024-25.

Key Recommendations

- **Revenue Enhancement:** Review AC class fares by aligning it with costs incurred while keeping general class affordable.
 - ⊕ Boost non-fare revenue to 20% by 2030 through advertising and commercial development
- **Infrastructure Development:** Streamline land acquisition process, improve state government coordination, complete Dedicated Freight Corridors, etc.
- **Safety and Modernization:** Eliminate unmanned crossings, accelerate track renewal, expedite Kavach system deployment, etc.



Also In News



Adjournment Sine Die

The winter session, 2024 of Parliament (both Houses) was **adjourned sine die** recently.

About Adjournment sine die

- Adjournment sine die means **terminating a sitting of Parliament for an indefinite period**.
- Here, the House is adjourned **without naming a day for reassembly**.
- **The power of adjournment sine die lies with the Presiding Officer of the House.**
- **Presiding Officer** can also **call a sitting of the House any time** after the House has been adjourned sine die.



Variable Rate Repo

Recently, RBI has conducted a Variable Rate Repo (VRR) auction.

About VRR Auction

- It is a **monetary tool** used by RBI for **liquidity injection**.
- Under this, **RBI allows Banks to borrow at rate decided by market**, generally **lower than Repo Rate** for duration more than one day.

⊕ **Repo Rate** (Repurchase rate) is the interest rate at which the **central bank lends money to commercial banks** when there is a shortage of funds.





TReDS

Bills financed through **TReDS (Trade Receivables Electronic Discounting System)** has seen significant growth in 2024.

About TReDS

- It is an **electronic platform for online discounting of bills of MSMEs** for supplies to large Corporates.
 - ⊕ It facilitates the **discounting of both invoices** as well as **bills of exchange**.
- It **enables MSMEs secure financial assistance digitally at competitive terms** and without any collateral security, based on the invoices/ bills for supplies to large corporates.
- **3 Operations TReDS platforms - Receivables Exchange of India Ltd (RXIL), M1xchange, and Invoicemart.**



Minimum Support Price (MSP)

Cabinet hikes Copra MSP by up to Rs 420 to Rs 12,100 per quintal for 2025.

About MSP

- MSP is the **minimum price at which the government buys crops from farmers to ensure fair income.**
- **Commission for Agricultural Costs and Prices** makes recommendation while final decision is made by **Cabinet Committee on Economic Affairs**, chaired by Prime Minister.
- Annually, **Centre** announces **MSPs for 22 major agricultural commodities**, including **Kharif crops, Rabi crops, and commercial crops**.
 - ⊕ In addition, **MSP for Toria and de-husked coconut** is also fixed based on MSPs of rapeseed & mustard, and copra, respectively.



Aerogels

Researchers of **IISER Pune** created a new aerogel that can extract gold from e-waste.

- This could help **reduce both electronic waste and harmful mining practices.**

About Aerogels

- **Genesis:** Invented in the 1930s.
- **Formation:** Created by **combining a polymer with a solvent** to form a gel, and then **removing the liquid from the gel** and replacing it with air.
- **Features:** They are the **lightest solid materials**, translucent, **extremely porous and very low in density**.
 - ⊕ They are one of the **finest insulation materials available.**



Squirrels

A study in **Springer Nature Journal** reveals California ground squirrels as opportunistic omnivores, exhibiting hunting and stealth behavior.

- More than **200 squirrel species** live all over the world, with the **notable exception of Australia.**

About Indian palm squirrel or three-striped palm squirrel:

- **Diet:** Omnivore, mostly based on fruit and nuts, but it also consumes eggs, small birds, larvae and insects.
- **Habitat:** **Build nests** in the **treetops** using the grass and branches.
- Aggressively protect their food stashes, **which they store in treetops.**



SMILE Program

India and Asian Development Bank (ADB) recently signed a **\$350 million policy-based loan** under the second subprogram of **SMILE (Strengthening Multimodal and Integrated Logistics Ecosystem)** program.

About SMILE Program

- It is a **programmatic policy-based loan (PBL)** by ADB to support the government of India to undertake wide ranging reforms in the **logistics sector**.
- **Objective**
 - ⊕ To **strengthen the institutional and policy framework** for inter-ministerial coordination and planning for **incentivizing private sector participation** in multimodal logistics projects (MMLPs)
 - ⊕ To improve **efficiencies in external trade logistics** and encourage the **use of smart and automated systems** for improved service delivery.



Sahitya Akademi

Naga writer Easterine Kire's **"Spirit Nights"** wins Sahitya Akademi Award 2024.

About Sahitya Akademi

- **Genesis:** Formally inaugurated in **1954** and Registered under the **Societies Registration Act, 1860.**
- **Ministry:** An autonomous body under **Ministry of Culture.**
- Role: Undertakes **literary activities in 24 languages** (22 scheduled languages and **English and Rajasthani**).
- Honoured as **'India's National academy of letters'**.
- **Its major awards:** Sahitya Akademi Award, **Bhasha Samman**



World Meditation Day

UN General Assembly has declared **December 21 as World Meditation Day** to raise awareness about meditation's benefits, emphasizing the right to physical and mental health.

About World Meditation Day

- Supported by countries like Liechtenstein, India, Sri Lanka, Nepal, Mexico, and Andorra, the **resolution was adopted unanimously by the 193-member UN General Assembly** on December 06, 2024.
- 2024 Theme: **"Meditation for Global Peace and Harmony"**
- **Significance:** Establishment of this day serves as a reminder of the importance of nurturing human consciousness and addressing global challenges such as conflicts, climate crises, and technological advancements through inner peace and compassion.



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