

Current affairs summary for prelims

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eShram - One Stop Solution' for Unorganised Workers

Context: Recently, Dr. Mansukh Mandaviya, Union Minister of Labour & Employment and Youth Affairs & Sports, unveiled the 'eShram - One Stop Solution' in New Delhi. It is revamped version of eShram portal. This innovative initiative aims to streamline access to various social security schemes for unorganised workers, facilitating their registration and enabling them to benefit from government welfare programs.

Key Features of eShram - One Stop Solution:

- Simplified Registration: The new system offers a streamlined registration process, making it easier for unorganised workers to sign up and access benefits.
- Seamless Access: The platform provides straightforward access to a range of social security schemes, ensuring workers can easily find and apply for relevant benefits.
- Integrated Data: By consolidating data from various central ministries and departments into a single repository, the solution enhances efficiency and transparency.
- Last Mile Connectivity: Integration with state government portals aims to improve connectivity and ensure that benefits reach the intended recipients effectively.

Integrated Welfare Schemes:

- The 'One Stop Solution' encompasses several key welfare programs, including:
 - One Nation One Ration Card
 - Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)
 - National Social Assistance Programme (NSAP)
 - National Career Service (NCS)
 - Pradhan Mantri Shram Yogi Maandhan

About e-Shram portal:

- The e-Shram portal, launched by the Ministry of Labour and Employment in August 2021, is a significant initiative aimed at providing social security benefits to workers in the unorganised sector.
- The portal seeks to create a comprehensive national database of unorganised workers, facilitating easier access

to various government schemes.

Key Features of the e-Shram Portal:

- Registration: Workers can easily register on the portal through a self-declaration process, providing essential details such as their Aadhaar number, mobile number, and bank account information.
- Benefits: Registered workers gain access to a range of benefits, including pensions, death insurance, and financial aid in cases of incapacity, thereby enhancing their financial security.

e-Shram One Stop Solution

A Single window for **Unorganized workers**

Ensuring the availability of all key Social Security & Welfare Schemes



Eligibility Criteria

- To register on the e-Shram portal, workers must meet the following criteria:
 - Be aged between 16 and 59 years.
 - Have a valid mobile number linked to their Aadhaar
 - Not be income taxpayers.

Innovative Study Reveals Diamond Dust as a Promising Solar Radiation Management Material

Context: A recent study published in Geophysical Research Letters has highlighted diamond dust as a potentially effective material for solar radiation management (SRM).











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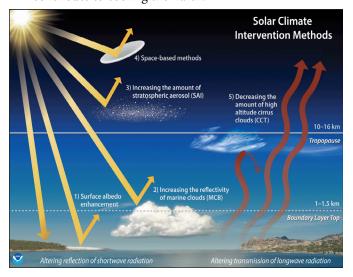
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The research compared seven different compounds and concluded that diamonds are the most efficient for reflecting solar radiation.

The authors propose an ambitious plan to spray five million tonnes of diamond dust annually into the upper atmosphere, which could lead to a temperature reduction of approximately 1.6 degrees Celsius.

About Diamond Dust:

In the realm of geoengineering, diamond dust refers to tiny, micron-sized diamond particles proposed for spraying into the upper atmosphere, specifically the stratosphere. This innovative approach aims to reflect sunlight and contribute to cooling the Earth.



Key Properties of Diamond Dust:

- High Albedo (Reflectivity): Diamonds possess a remarkable ability to reflect sunlight, making them highly effective for solar radiation management (SRM).
- **Durability:** The robust nature of diamond particles allows them to withstand various atmospheric conditions, ensuring their longevity and effectiveness once deployed.
- **Non-toxic:** Being chemically inert, diamonds minimize environmental risks, presenting a safer alternative to other materials traditionally considered for SRM.

Understanding Geoengineering:

Geoengineering refers to large-scale interventions designed to alter the Earth's climate system, primarily

aimed at counteracting the effects of global warming. It encompasses two main strategies:

- Solar Radiation Management (SRM): This strategy focuses on reflecting solar radiation away from the Earth to lower global temperatures.
- Carbon Dioxide Removal (CDR): This approach seeks to remove carbon dioxide from the atmosphere to mitigate climate change.

The Science Behind Solar Radiation Management

SRM has garnered significant interest as a potential solution to climate change. It involves the deployment of reflective materials either in the atmosphere or space to deflect sunlight. The concept is inspired by natural phenomena, such as volcanic eruptions. For instance, the 1991 eruption of Mount Pinatubo released sulphur dioxide, forming particles that reflected sunlight and temporarily reduced global temperatures by 0.5 degrees Celsius.

Diamond Dust vs. Other SRM Materials

Historically, various materials have been considered for SRM applications, including sulphur, calcium, and sodium chloride. While each material has its benefits and limitations, diamonds stand out due to their unique reflective properties. The recent study suggests that diamond dust could provide a more effective and sustainable option for managing solar radiation.

Carbon Dioxide Removal Technologies:

- In parallel, CDR technologies aim to remove carbon dioxide from the atmosphere through various methods:
 - Carbon Capture and Sequestration (CCS): Captures CO2 emissions from industrial sources and stores them underground.
 - Carbon Capture and Utilization (CCU): Utilizes captured CO2 in industrial processes.
 - Direct Air Capture (DAC): Extracts CO2 directly from the ambient air.
- While these technologies can play a role in reducing atmospheric CO2 levels, they face challenges regarding scalability and cost-effectiveness.

Challenges with Carbon Capture Technologies:

Relying heavily on CCS to achieve climate goals may prove impractical and expensive. Estimates suggest that the cost











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of meeting climate targets primarily through CCS could exceed US\$30 trillion, making renewable energy a more feasible focus. Furthermore, the search for safe storage sites for captured CO2 continues to present challenges.

Cyber Fraud in India

Context: As cyber fraud continues to escalate, alarming projections from the Indian Cyber Crime Coordination Centre (I4C) suggest that Indians may incur losses exceeding 1.2 lakh crore over the next year.

 This figure highlights the increasing vulnerability of the nation to cybercriminal activities, which are poised to siphon off approximately 0.7% of India's GDP.

Scam Compounds on the Rise:

The rise of "scam compounds" in Southeast Asia, which resemble call centers, has become a hub for investment scams. Fraudsters operating from these locations often use Indian mobile numbers to deceive unsuspecting victims across the country.

Key Contributors to Cyber Fraud:

A significant factor in these financial crimes is the proliferation of mule bank accounts, which are often used to facilitate illegal transactions and money laundering. A majority of the funds lost to cyber fraud are believed to be transferred out of India, with many scams traced back to entities in China, Cambodia, and Myanmar.

Alarming Scam Statistics:

• Investigative agencies are identifying about 4,000 mule bank accounts daily. In just the first half of this year, cybercrime complaints registered through the Ministry of Home Affairs' cybercrime portal and helpline have reported total losses amounting to 11,269 crore. This underscores the urgency of addressing the burgeoning issue of cyber fraud.

ATM and Global Fraud:

• Additionally, 18 ATM hotspots have been identified across the country where fraudulent withdrawals have occurred. There have also been reports of cash being withdrawn from overseas ATMs in locations such as Dubai, Hong Kong, Bangkok, and Russia, further complicating the efforts to combat cybercrime.

India's initiative to curb cyber fraud:

India is making a significant move to combat cyber fraud by disconnecting approximately 2.17 crore mobile connections and blocking 2.26 lakh mobile handsets. These connections were obtained through forged documents or have been misused for cybercrime. This initiative, spearheaded by the Union Ministry of Telecommunications, aims to address the alarming rise in cyber complaints, with over 1 lakh cases reported since January 2023.

Key Measures Implemented:

- KYC Protocols for SIM Cards: The Department of Telecommunications (DoT) has introduced measures to enforce strict Know Your Customer (KYC) protocols for SIM card procurement to prevent misuse.
- Blocking Spoofed Calls: The DoT has mandated the blocking of incoming international spoofed calls that display Indian mobile numbers. Currently, 35% of such calls are already being blocked, with full implementation expected by December 31, 2024.
- Weekly Reporting: Telecom service providers will be required to report weekly on Indian mobile numbers roaming in Southeast Asian countries, including Hong Kong, Cambodia, Laos, the Philippines, and Myanmar.
- Legal Action against Agents: State and Union Territory
 police are tasked with taking legal action against point-ofsale agents who sell SIM cards that are subsequently used
 in scam operations across Southeast Asia.
- International Cooperation: The initiative includes efforts to collaborate with Southeast Asian countries to strengthen joint efforts in combating cybercrimes.

Future plans:

Ministry of Home Affairs (MHA) plans to convene a meeting with the Union Finance Ministry and the Reserve Bank of India (RBI) to develop mechanisms to curb the operations of mule accounts. Banks are being urged to closely monitor unusual transactions, especially in accounts with low balances or those belonging to salaried individuals.











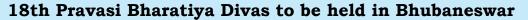
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Power Packed News

Brown Dwarfs

- Researchers have discovered that a brown dwarf found in 1995 is actually two brown dwarfs orbiting each other. The findings were published in the Astrophysical Journal Letters and Nature.
- These two brown dwarfs, named Gliese 229Ba and Gliese 229Bb, are part of a binary system, meaning they are gravitationally locked together. They orbit a small star and are located 19 light-years away in the constellation Lepus.
- Brown dwarfs are objects that are larger than planets but smaller than stars.
 They do not have enough mass to start nuclear fusion like stars but are more massive than planets.
- Gliese 229Ba has 38 times the mass of Jupiter, and Gliese 229Bb has 34 times Jupiter's mass. These two brown dwarfs orbit each other closely, completing a full orbit every 12 days.
- This discovery is important because brown dwarfs are rare, and finding them in this type of system adds to our understanding of how these objects form.



- The 18th Pravasi Bharatiya Divas will be held in Bhubaneswar from January 8 to 10, 2025 in Odisha.
- Chief Minister Mohan Charan Manjhi has approved this proposal received from the Ministry of External Affairs.
- Pravasi Bharatiya Divas is celebrated to commemorate the return of Mahatma Gandhi to India from South Africa on January 9, 1915.
- India has been celebrating this day since 2003 to honour the contribution of the overseas Indian community. The last Pravasi Bharatiya Divas was held in Indore, Madhya Pradesh.



Israel membership in Asian Development Bank (ADB)

- Recently, Israel has officially joined the Asian Development Bank (ADB) as its 69th member and 20th nonregional member. The country submitted its application for ADB membership in January 2022. The ADB Board of Governors approved Israel's membership on April 14, 2022, through Resolution no. 414, which encompassed both Israel's membership and an increase in authorized capital stock.
- As a new member, Israel will gain access to financing and expertise for its development projects, along with opportunities to engage in regional initiatives and collaborate with other member countries.
- The Asian Development Bank is dedicated to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, with a strong focus on eradicating extreme poverty. Established in 1966, the ADB currently comprises 69 members, of which 49 are from the Asia-Pacific region. Its headquartered in Mandaluyong, Philippines.











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Luong Cuong Elected as President of Vietnam

On October 21, Luong Cuong was elected President of Vietnam for a term lasting until 2026 during the ongoing 8th session of the 15th National Assembly (NA). Cuong, who is a member of the Political Bureau of the Communist Party of Vietnam (CPV) Central Committee and a permanent member of its Secretariat, received unanimous support from all 440 delegates present at the session, representing 91.67% of

the total delegates.

He succeeds Toh Lam, who was appointed General Secretary of the ruling Communist Party in August. The position of General Secretary holds significant power in Vietnam, while the presidency is largely ceremonial, focusing on engagements with foreign dignitaries. Pham Minh Chinh currently serves as the Prime Minister. Vietnam's capital is Hanoi, and its currency is the Vietnamese Dong.







