



WEEKLY CURRENT AFFAIRS MAGAZINE



January 10 to January 16, 2026

[CLICK HERE](#)

Monthly Current Affairs Magazine

BEED EXPERIMENT IN MAHARASHTRA

Doubling farmers' incomes has remained elusive despite policy emphasis, as conventional approaches focused on input subsidies and MSPs have delivered limited gains.



The Beed experiment in Maharashtra, offers an evidence-based pathway to income enhancement through crop diversification, institutional support, and market integration.

The Krishikul initiative under the Global Vikas Trust demonstrates that **shifting from low-value traditional crops to high-value fruit crops**, combined with scientific farming and assured market linkages, **can significantly raise farm incomes**. Independent evaluation by TISS (2024) shows per-acre incomes rising nearly ten-fold within a short transition period.

Challenges in India's Farm Income Strategy

- **Low-productivity cereal cropping:** Rain-fed paddy-wheat dominance in central and eastern India keeps yields and incomes structurally low.
- **Fragmented landholdings:** Sub-1-hectare holdings limit access to quality seeds, irrigation, and mechanisation.
- **Weak post-harvest systems:** Poor cold chains and processing cause distress sales and high losses in fruits and vegetables.
- **Credit and risk constraints:** Inadequate formal credit pushes farmers to avoid high-value crops due to income risk.
- **Weak market linkage:** Reliance on APMC mandis exposes farmers to price crashes in perishables like tomato and onion.

Why the Beed Model Matters

- **Income Diversification:** Fruit crops like guava, pomegranate, and custard apple generated cumulative returns far higher than soybean or cotton.
- **Human Capital & Trust:** Continuous engagement, training, and confidence-building were central to adoption.
- **Natural Resource Management:** Aquashaft-based groundwater recharge raised water tables by up to 350 feet, ensuring irrigation sustainability.

- **Institutional Synergy:** Integration of NGOs, banks (through FLDG), and research institutions reduced risk and enhanced scalability.
- **Economic Logic:** Higher value realisation, stable demand, and reduced distress migration strengthened rural economies.

Way Forward

- Promote region-specific crop diversification aligned with agro-climatic conditions.
- Scale public-private-NGO partnerships for extension and credit support.
- Invest in aggregation, grading, cold chains, and processing to capture value.
- Shift policy focus from production targets to income and value-chain outcomes.

The Beed experience shows that farmers' income growth is not achieved by price support alone but by restructuring agriculture around value, markets, and institutions. Replicating such integrated models can transform Indian agriculture from subsistence-oriented production to income-driven growth.

SPORTS AUTHORITY OF INDIA (SAI)

The Sports Authority of India (SAI) has launched a four-day Sports Sciences Workshop for combat sports coaches at its Sports Science Division in New Delhi.

About Sports Authority of India (SAI):

- **Nature:** It is a **registered society** fully funded by the Government of India.
- **Nodal ministry:** It is the apex national sports body of India, established by the **Ministry of Youth Affairs and Sports**, Government of India.
- **Establishment:** It was set up **in 1984** to carry forward the legacy of the IXth Asian Games held in New Delhi in 1982 under the Department of Sports.
- **Objective:** SAI has been entrusted with the twin objectives of **promoting sports and achieving sporting excellence** at the national and international level.
- **Focus areas:** SAI's primary efforts include **widespread talent scouting and training of selected individuals** by providing vital inputs like coaching, infrastructure, equipment support, sports kits, competitive exposure, etc.
- **Significance:** SAI has played a significant role in **shaping India's sports development** by providing training to elite athletes and at the same time operating a number of schemes for the identification and development of young talent.
- **Implementation of schemes:** SAI implements the following Sports Promotional Schemes across the country **to identify talented sportspersons in various age groups** and nurture them to excel at the national and international levels:
 - National Centres of Excellence (NCOE)
 - SAI Training Centre (STC)
 - Extension Centre of STC
 - National Sports Talent Contest (NSTC)



- **Other responsibilities:** SAI is also entrusted with the responsibility of **maintaining and utilizing**, on behalf of the Ministry of Youth Affairs & Sports, the following **stadiums in Delhi**, which were constructed/renovated for the IXth Asian Games.
 - Jawaharlal Nehru Sports Stadium
 - Indira Gandhi Sports Complex
 - Major Dhyan Chand National Stadium
 - Dr. Syama Prasad Mookherjee Swimming Pool Complex
 - Dr. Karni Singh Shooting Ranges.

DUST EXPERIMENT

ISRO used the first homegrown cosmic dust detector, the Dust EXperiment, to confirm that a cosmic dust particle hits Earth's atmosphere approx. every thousand seconds.



About Dust EXperiment (DEX):

- **Nature:** It is the first **Indian-made instrument** to hunt for these high speed **Interplanetary Dust Particles (IDPs)**.
- **Development:** It is developed by the **Physical Research Laboratory, Ahmedabad**.
- **Associated mission:** It was flown on **PSLV Orbital Experimental Module (POEM)** of the PSLV-C58 XPoSat Mission on January 1, 2024.
- **Uniqueness:** It is the **first-of-its-kind instrument** designed to detect such high-transient particles. It is a **blueprint of the detector** which can study the cosmic dust particle at any planet having an atmosphere or no atmosphere.

- **Mechanism:** It is a compact instrument tuned to hear impacts, capturing vital data. At the core of the experiment lies a **3-kilogram dust detector** based on the cutting-edge hypervelocity principle designed to capture high-speed space dust impacts **with only 4.5 W power consumption**.
- **Positioning:** It rocketed to an **altitude of 350Km**.
- **Significance:** Its data redefines our **understanding of the universe and charts the path for safe human deep-space missions**.
- Understanding and collecting data on interplanetary dust in Earth's atmosphere will also be valuable for planning **Gaganyaan missions**.
- **About Interplanetary Dust Particles (IDPs):**
 - Interplanetary dust refers to **micrometer-scale particles** originating from the solar system.
 - These are microscopic shrapnel from comets and asteroids that form our **atmosphere's mysterious "meteor layer"**, and show up as "shooting stars" at night.
- These can be analyzed to gain insights into their origins, formation mechanisms, and the processes that occurred in **early solar and presolar environments**.

THANTHAI PERIYAR WILDLIFE SANCTUARY

The first phase of the All-India Tiger Estimation-2026 (AITE-26) commenced in the Thanthai Periyar Wildlife Sanctuary under the Erode Forest Division recently.



About Thanthai Periyar Wildlife Sanctuary:

- **Location:** It is located in the Bargur Hills of the **Erode district in Tamil Nadu**, at the junction of the Eastern Ghats and the Western Ghats.
- **Status:** It was notified by the Tamil Nadu government on January 30, 2024, it became the **state's 18th wildlife sanctuary**. It is also one of the tiger corridors identified by the National Tiger Conservation Authority.
- **Area:** The sanctuary covers an area of **80,114.80 hectares** (approximately 801 sq km).

- **Tiger corridor:** It is a vital tiger corridor identified by the National Tiger Conservation Authority (NTCA), linking the Sathyamangalam Tiger Reserve and the Male Mahadeshwara Hills Tiger Reserve.
- **Connectivity:** The region is part of the Nilgiris Elephant Reserve and provides a crucial habitat for large herbivores, including elephants and the Indian Gaur. It connects the Nilgiris Biosphere Reserve with the Cauvery South Wildlife Sanctuary, facilitating the safe movement of wildlife.
- **River:** The sanctuary is the catchment area for the Palar River, which flows into the Cauvery River and supports agricultural activities in the region.
- **Biodiversity:** The diverse landscape, including hills, valleys, forests, and grasslands, is home to a rich variety of flora and fauna, including tigers, leopards, sloth bears, and various bird species.

MAN PORTABLE ANTI-TANK GUIDED MISSILE

Man Portable Anti-tank Guided Missile (MPATGM) Weapon System, indigenously developed by DRDO has been field evaluated in different flight configurations.



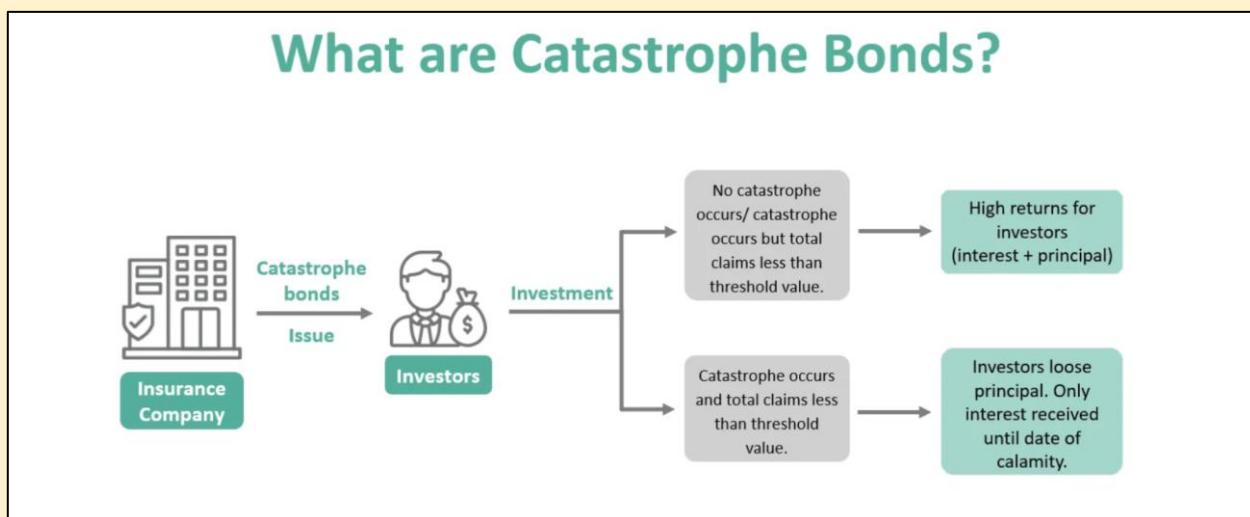
About Man Portable Anti-Tank Guided Missile (MPATGM):

- **Development:** It is indigenously designed and developed by Defence Research & Development Organisation (DRDO).
 - **Partners:** Bharat Dynamics Limited (BDL) and Bharat Electronics Limited (BEL) are the development-cum-production partners (DcPP) for the MPATGM.
- **Composition:** The system consisted of the MPATGM, Launcher, Target Acquisition System, and the Fire Control Unit.
- **Generation:** It is the third-generation “fire and forget” missile.

- **Operational Range:** Its range is **minimum of 200m to a maximum of 4 km** (varies by source, commonly cited as up to 2.5–4 km).
- **Weight:** It is extremely **lightweight (approx. 14.5 kg)** to ensure portability by a single soldier.
- **Launch platforms:** The missile can be launched from a **tripod-mounted system as well as from a military vehicle-based launcher**, enhancing its operational flexibility.
- **Guidance system:** It uses a **Miniaturized Imaging Infrared (IIR) Seeker** for all-weather, day/night operations.
- **Warhead:** It is equipped with a **Tandem High Explosive Anti-Tank (HEAT) warhead**, specifically designed to defeat Explosive Reactive Armour (ERA).

'CATASTROPHE BONDS'

Having battled natural disasters in recent years, Kerala asked the Union government to consider instituting 'catastrophe bonds' as protection against disaster-linked losses.



About Catastrophe Bonds:

- **Nature:** These are **insurance-linked securities** that transfer the financial risks from natural disasters from the bond issuer to the capital market.
- **Significance:** These are a unique hybrid insurance-cum-debt financial product that transforms **insurance cover into a tradable security**.
 - **Risk bearing:** At present, the financial risk is **fully borne by the State or Central governments**. These bonds are sponsored by sovereign governments, who pay premiums.
 - **Special Purpose Vehicle (SPV):** A separate legal entity is **typically created to hold the investor's principal in safe, liquid assets** (like U.S. Treasurys) to ensure the funds are immediately available if a disaster strikes.
 - **Issuing authorities:** These are issued through intermediaries, **such as the World Bank or Asian Development Bank**, to reduce issuance risks.
 - **Purchasing authorities:** These are purchased by **global investors, including pension funds, hedge funds, and family offices**, who are attracted by high returns and the diversification benefits of non-market correlated risks.

- **Coupon rates:** The risk level and frequency of disaster occurrence directly influence coupon rates. For instance, earthquake-related bonds often offer lower premiums (1-2%) compared to those covering cyclones or hurricanes.
- **Global scene:** Mexico and the Philippines have been using CAT bonds to protect themselves against disaster-linked losses.
- **Mechanism:**
 - Investors buy the bond and receive periodic **high-interest payments** (coupons).
 - If no predefined disaster occurs during the bond's **term (usually 1-3 years)**, the investor gets their full principal back.
 - If a trigger event occurs, the principal is forfeited by the investor and **transferred to the sponsor** to fund relief and reconstruction.
- **Relevance for India:**
 - **Fiscal Shock Absorber:** India's high vulnerability to climate-induced disasters makes cat bonds a strategic "fiscal buffer" to protect the national budget from sudden shocks.
 - **Low Insurance Penetration:** With less than 10% of India's disaster-affected population covered by traditional insurance, cat bonds provide a macro-level safety net.
 - **Regional Leadership:** India is exploring a South Asian Cat Bond initiative to pool risks across the subcontinent (e.g., earthquakes in Nepal/Bhutan and cyclones in Bangladesh/Sri Lanka) to lower premium costs for all.

UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS

India is expected to grow by 7.4 per cent in the current financial year, driven by consumption and public investment, the UNDESA said in a report.



About UNDESA:

- **Full form:** It stands for **United Nations Department of Economic and Social Affairs**.
- **Nature:** Rooted in the United Nations Charter and **guided by the transformative 2030 Agenda for Sustainable Development**, the UNDESA upholds the development pillar of the United Nations.
- **Objective:** Its Divisions and Offices work together towards a common goal to promote the **social, economic, and environmental dimensions** of sustainable development.
- **Establishment:** It was originally **founded in 1948** and restructured in 1997.
- **Headquarters:** It is based at UN Headquarters in **New York**, United States.

Mandate:

- UN DESA's work programme can be categorized into three areas: **norm-setting, analysis, and capacity-building.**
 - Its work addresses a range of cross-cutting issues that affect peoples' lives and livelihoods. From **poverty reduction to governance to finance to the environment**, UNDESA's work is about human progress for all, especially the most vulnerable.
- **Focus areas:**
 - To **facilitate the negotiations** of Members States in many intergovernmental bodies to address ongoing or emerging global challenges;
 - To provide substantive **support to intergovernmental processes** on development issues in the General Assembly and the Economic and Social Council;
 - To **advise interested Governments** on the ways and means of translating policy frameworks developed in the UN conferences and summits into programmes at the country level;
 - To **collaborate closely with its partners** at regional and country levels in helping countries to formulate and implement development strategies;
 - To **compile, generate, and analyse a wide range of economic, social, and environmental data** and information on which member states of the United Nations draw.

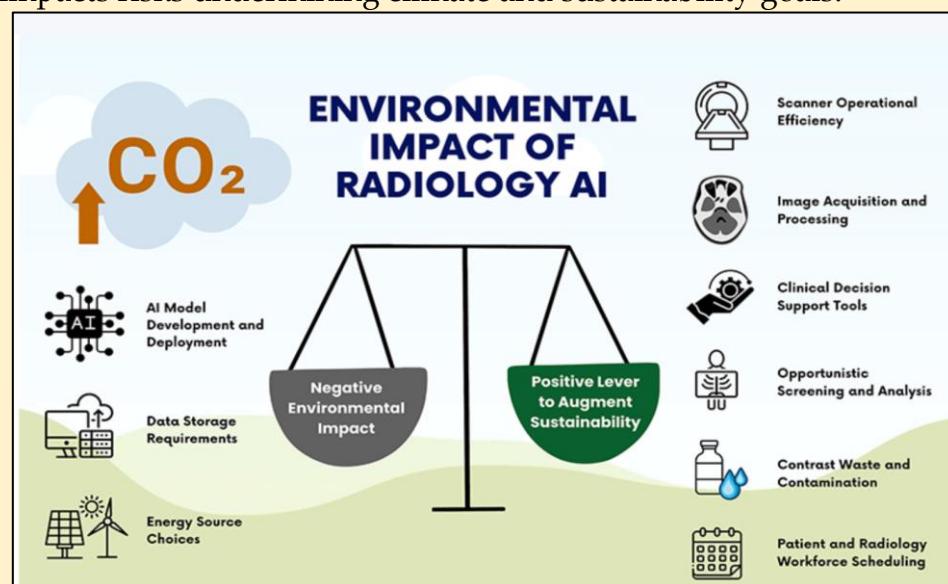
Reports Published:

- **World Economic Situation and Prospects Report**
- **World Social Report**
- **Sustainable Development Goals Report.**

ARTIFICIAL INTELLIGENCE (AI) & ITS ENVIRONMENTAL IMPACT

Artificial Intelligence (AI) is rapidly transforming sectors ranging from healthcare and agriculture to governance and finance.

However, as highlighted in the article, **the environmental costs of developing and deploying AI systems have received far less policy attention.** With India positioning itself as a global AI hub, ignoring these impacts risks undermining climate and sustainability goals.



AI is not environmentally neutral. The development, training, and deployment of large AI models impose significant **energy, water, and carbon costs**, necessitating a policy framework that integrates AI governance with environmental regulation and sustainability metrics.

Environmental Impact of AI

- **Carbon footprint**
 - Training a single **Large Language Model (LLM)** can generate ~3,00,000 kg of CO₂ **emissions**
 - Another study estimates ~6,26,000 pounds of CO₂ for training one large model
 - Comparable to the **lifetime emissions of multiple cars**.
- **Energy consumption**
 - According to **UNEP (2024)**, a single query on **ChatGPT consumes ~10 times more energy** than a Google search
 - Global **ICT sector** contributes **1.8%-2.8% of global GHG emissions** (some estimates up to **3.9%**).
- **Water stress**
 - AI servers may consume **4.2-6.6 billion cubic metres of water by 2027**, aggravating water scarcity
 - Data centres rely heavily on freshwater for cooling.

Global Regulatory Responses

- **UNESCO (2021): Recommendation on the Ethics of Artificial Intelligence** – recognises AI's negative impacts on environment and society
- **European Union:**
 - **AI Environmental Impacts Act, 2024**
 - Harmonised AI rules linking technology governance with sustainability
 - **Corporate Sustainability Reporting Directive (CSRD)** mandates disclosure of emissions from data centres and high-compute activities
- **United States & EU emerging as leaders in AI sustainability regulation.**

India's Policy Gaps and Challenges

- **Data deficit:** No standardised, verifiable data on **AI-specific carbon, energy, and water footprints**.
- **Regulatory blind spot:** Environmental Impact Assessment (EIA) framework focuses on physical infrastructure, not **digital or algorithmic projects**.
- **Narrative imbalance:** Policy discourse emphasises **AI for climate solutions**, but not **climate costs of AI**.
- **Lack of disclosure norms:** AI environmental impacts are not part of **ESG reporting standards** in India.

Way Forward

- Develop **measurement standards** for AI energy, water, and GHG footprints
- Extend **EIA Notification, 2006** to assess large-scale AI model development and data centres
- Mandate **AI-specific environmental disclosures** under ESG norms (SEBI, MCA)
- Incentivise **green AI practices**:
 - Pre-trained models
 - Renewable-powered data centres
 - Efficient algorithms
- Promote **multi-stakeholder governance** involving industry, think tanks, and civil society

As India accelerates AI adoption, **environmental sustainability must become a core pillar of AI governance**. Measuring, regulating, and disclosing AI's ecological footprint is essential to ensure that technological progress does not come at the cost of climate stability and resource security. Responsible AI is not only ethical – it is environmentally imperative.

INDIA-GERMANY PARTNERSHIP AND THE EMERGENCE OF THE INDO-EUROPE STRATEGIC GEOGRAPHY

The global order is witnessing heightened volatility due to renewed **U.S. unilateralism**, an **assertive China**, and prolonged instability in Europe following the **Russia-Ukraine war**.

Against this backdrop, India and Germany are recalibrating their bilateral engagement to shape a broader **Indo-Europe strategic framework**, aimed at enhancing stability, diversification, and resilience in global geopolitics.



The article argues that **India-Germany relations are no longer merely bilateral**, but central to constructing an **Indo-Europe strategic geography** that links India's scale, demography, and market depth with Europe's industrial strength, technological sophistication, and regulatory capacity – thereby hedging against over-dependence on any single great power.

Key Drivers of India-Germany Convergence

- **European strategic rethinking:**
Europe is reassessing long-term dependencies on:
 - **Russian energy**
 - **Chinese supply chains**
 - **American security guarantees**
- **Germany's defence transformation:**
 - Emergence as the **world's third-largest defence spender**
 - Planned defence expenditure of **3.5% of GDP**
 - Annual military spending may reach **\$200 billion by end of the decade**
 - First time since WWII that Germany's military capacity could translate into sustained strategic power
- **India's strategic recalibration:**
 - Hedging against **China's assertiveness**
 - Moving beyond reliance on **Russia and China**
 - Deepening engagement with **Germany and the EU** to stabilise Eurasia

Why the Indo-Europe Idea Matters

- **Complementary strengths:**
 - **India:** Demography, market scale, Indo-Pacific centrality
 - **Europe/Germany:** Industry, technology, capital, regulation.
- **Not an alliance, but a geometry:**
 - Indo-Europe does **not replace NATO or the Quad**
 - Acts as a **supplementary strategic pillar** balancing Eurasian power shifts.
- **Bridging regions:**
Initiatives such as:
 - **India-Middle East-Europe Economic Corridor (IMEC)**
 - Cooperation on **critical minerals**
 - **Green hydrogen**
 - **Maritime awareness in the western Indian Ocean**

Important Historical & Strategic Anchors

- **Deep historical links:**
 - Indo-German interactions during World War I
 - Shared legacy of **seeking strategic autonomy** under great-power dominance
- **Leadership signalling:**
 - Chancellor **Friedrich Merz's India visit**
 - Modi-Merz agreement on **defence industrial cooperation**
 - Revival of momentum after years of relative stagnation.

Challenges Ahead

- **Implementation gap:** Translating agreements into **tangible defence, trade, and technology outcomes**
- **European coherence:** Indo-Europe's success depends on wider EU buy-in, not Germany alone
- **Managing U.S. factor:** Both India and Europe still see the U.S. as indispensable, but seek **greater burden-sharing**.

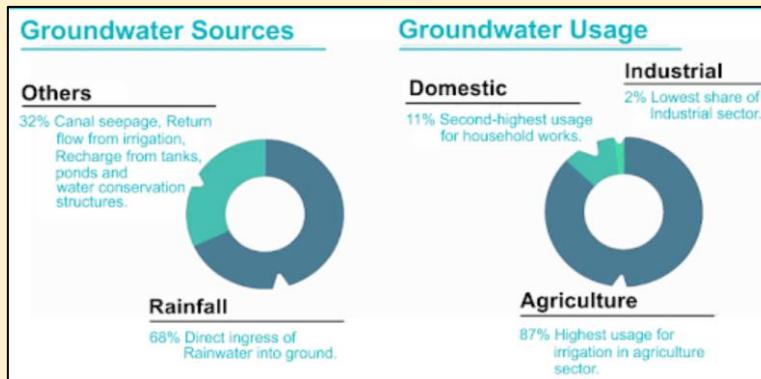
Way Forward

- Accelerate **defence co-development and co-production**
- Institutionalise **India-EU strategic consultations**
- Align Indo-Pacific and European security perspectives
- Leverage economic corridors and clean-energy partnerships
- Ensure Indo-Europe complements, rather than competes with, existing multilateral frameworks.

In an era of geopolitical churn, **India and Germany are moving beyond episodic cooperation toward strategic co-construction**. The Indo-Europe idea reflects a pragmatic response to uncertainty—anchored not in alliances, but in diversification, resilience, and shared responsibility. If effectively implemented, it can become a stabilising pillar in an increasingly fragmented global order.

CENTRAL GROUND WATER BOARD (CGWB)

The Central Ground Water Board (CGWB) has stated that Andhra Pradesh is one of the States facing widespread contamination of groundwater as per the BIS standards.



About Central Ground Water Board:

- **Nature:** It is the **National Apex Agency** entrusted with the responsibilities of providing scientific inputs for management, exploration, monitoring, assessment, augmentation, and **regulation of groundwater resources** of the country.
- **Establishment:** It was established **in 1970** by **renaming the Exploratory Tube wells Organization** under the Ministry of Agriculture, Government of India. It was merged with the Ground Water Wing of the Geological Survey of India during 1972.
- **Nodal ministry:** It is a multidisciplinary scientific organization of the Department of Water Resources, River Development and Ganga Rejuvenation, **Ministry of Jal Shakti**, Government of India.
- **Mandate:** It aims to develop and disseminate technologies and **monitor and implement national policies** for the scientific and sustainable development and **management of India's groundwater resources**.
- **Organization Setup:** It is headed by the **Chairman and has five members**. It operates via 18 regional offices and 17 divisional offices across India.
- **Composition:** It is a multidisciplinary scientific organization consisting of **Hydrogeologists, Geophysicists, Chemists, Hydrologists, Hydrometeorologists, and Engineers**.
- **Wings:** It has **four main wings**, namely
 - Sustainable Management & Liaison (SML)
 - Survey, Assessment & Monitoring (SAM)
 - Exploratory Drilling & Materials Management (ED&MM)
 - Water Quality & Training and Technology Transfer (WQ&TT).
- **Headquarters:** Its headquarters is located in Bhujal Bhawan, **Faridabad**, Haryana.
- **Regulation:** The regulation and control of groundwater development is managed by Central Ground Water Authority (CGWA) in coordination with State Government Organizations.
- **Focus areas:**
 - Groundwater explorations to **delineate groundwater-worthy areas** and potential aquifers.
 - **Geophysical surveys** to delineate groundwater bearing zones, etc.
 - Periodic assessment of the country's groundwater resources.
 - Monitoring of groundwater levels and quality through groundwater observation wells.
 - Dissemination of **Ground Water Data** and knowledge.

HATTI TRIBE

Boda Tyohar", the biggest annual festival of the Hatti tribe in Himachal Pradesh's Sirmour commenced recently with traditional fervour.



About Hatti Tribe:

- **Nomenclature:** The Hattis are a close-knit community who take their name from their age-old professional **practice of selling their homegrown crops at small markets called 'Haat'** in nearby cities.
- **Location:** These tribal people reside in the **Himachal-Uttarakhand border** in the basin of the Giri and Tons rivers, both tributaries of the Yamuna.
- **Social Structure:** The community maintains a rigid caste system, primarily divided into **upper castes (Bhat and Khash) and lower castes (Badhois).**
 - **Clans:** There are two main Hatti clans: **one in the Trans-Giri area** of the Sirmaur district in Himachal Pradesh and the **other in Jaunsar Bawar of Uttarakhand**. The two Hatti clans have similar traditions, and intermarriages are common.
 - **Marriage:** **Jodidara** is a traditional form of polyandrous marriage practised among the Hatti tribe in Himachal Pradesh, where a woman marries two or more brothers. **Polyandry is legally recognised** in Himachal Pradesh under revenue laws.
 - **Attire:** Hatti men traditionally don **distinctive white headgear** on ceremonial occasions.
 - **Governance:** Harris is governed by a **traditional council called 'khumbli'** which decides community matters.

- **Economy:** The Hatti population relies on agriculture for livelihood and bare subsistence since their climate is ideal for growing “Cash Crops.”
 - **Festival:** Boda Tyohar, also called Magho ko Tyohar, is the biggest annual festival of the Hatti tribe.
 - **Population:** According to the 2011 census, members of the community numbered around 2.5 lakh, but at present the population of the Hattis is estimated at around 3 lakhs.
- **ST Status:** In 2023, the Indian government granted Scheduled Tribe (ST) status to the **Hatti community in Himachal Pradesh.**

INTERNATIONAL RENEWABLE ENERGY AGENCY (IRENA)

Union Minister for New and Renewable Energy recently delivered India's national statement at the 16th Assembly of the IRENA in Abu Dhabi, United Arab Emirates.



About International Renewable Energy Agency (IRENA):

- **Establishment:** It is an intergovernmental organisation that was **founded in 2009** to support countries in their transition to a sustainable energy future.
- **Objective:** It serves as the principal platform for international cooperation, a centre of excellence, and a **repository of policy, technology, resource and financial knowledge on renewable energy.**
- **Member countries:** It has **170 Members and the European Union**. India is also one of the founder members of IRENA.
- **Association with UN:** It is an **official United Nations observer.**
- **Secretariat:** It comprises the **Director-General and his staff**, provides administrative and technical support to the Assembly, the Council and their subsidiary bodies.
- **Headquarters:** Its headquarters is **in Abu Dhabi, United Arab Emirates.**
- **Governance:** **Assembly is IRENA's ultimate decision-making authority**, made up of one representative from each Member.
- **Council:** It is composed of **21 Member States elected for a two-year term** and is accountable to the Assembly. Council members serve on a rotating basis to ensure the effective participation of both developing and developed countries and a fair and equitable geographical distribution.

INDIAN GIANT SQUIRREL

During the ongoing All India Tiger Estimation 2026 survey, the Indian giant squirrel, was sighted in the Atwan region of the Pune forest division.



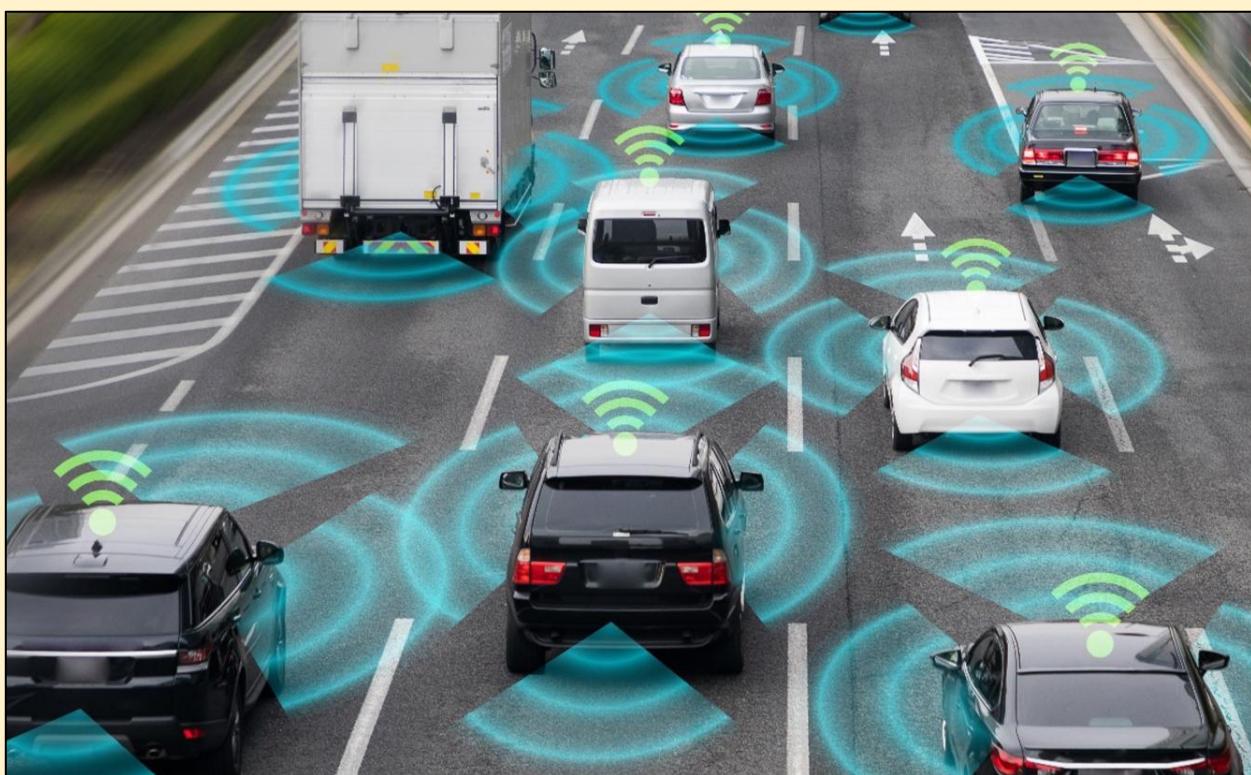
About Indian Giant Squirrel:

- **Scientific Name:** The scientific name of Indian Giant Squirrel is **Ratufa indica**.
- **Nature:** The Indian Giant Squirrel is a **large rodent species native to India**. More specifically, it is a type of tree squirrel. It is **one of the largest squirrels in the world**.
- **Other names:** It is also known as the **Malabar Giant Squirrel**.
 - **Distribution:** It is found primarily in the **Western Ghats, Eastern Ghats, and Satpura Range**. Their ranges include many states, including Karnataka, Andhra Pradesh, Madhya Pradesh, Gujarat, Chhattisgarh, Jharkhand, Maharashtra, Kerala, and Tamil Nadu.
 - **Significance:** It is **Maharashtra's state animal** and locally known as Shekru.
 - **Habitat:** It is **arboreal**, spending most of its time in trees. It makes its **shelter within holes in trees**. They can propel impressive distances of 20 feet.
 - **Structure:** Its total body **length varies from 254 to 457 mm**. The tail is typically longer than the length of its body. These squirrels **weigh approximately 1.5 to 2 kg**. They have short, round ears, a broadened hand with an expanded inner paw for gripping, and large, powerful claws used for gripping tree bark and branches.
 - **Difference between males and females:** Females are usually larger in size than their male counterparts by about three centimeters and have mammae for nursing their young.

- **Mating pattern:** They are typically solitary animals, being seen only rarely in pairs during the breeding season.
- **Distinguishing features:** They are distinguishable by their striking, multi-colored hues.
- **Colour patterns:** The colours vary between individual squirrels. There is a common pattern of two to three shades, including white or cream, brown, black, red, maroon, and sometimes dark Fuschia. The deep shades are primarily seen along the body, while the lighter colors occur on the underside and the long, bushy tail.
- **Conservation Status:** It is classified as Least Concern under the IUCN Red List.

VEHICLE-TO-VEHICLE (V2V) COMMUNICATION TECHNOLOGY

The Government of India is preparing to roll out Vehicle-to-Vehicle (V2V) communication technology by end of 2026.



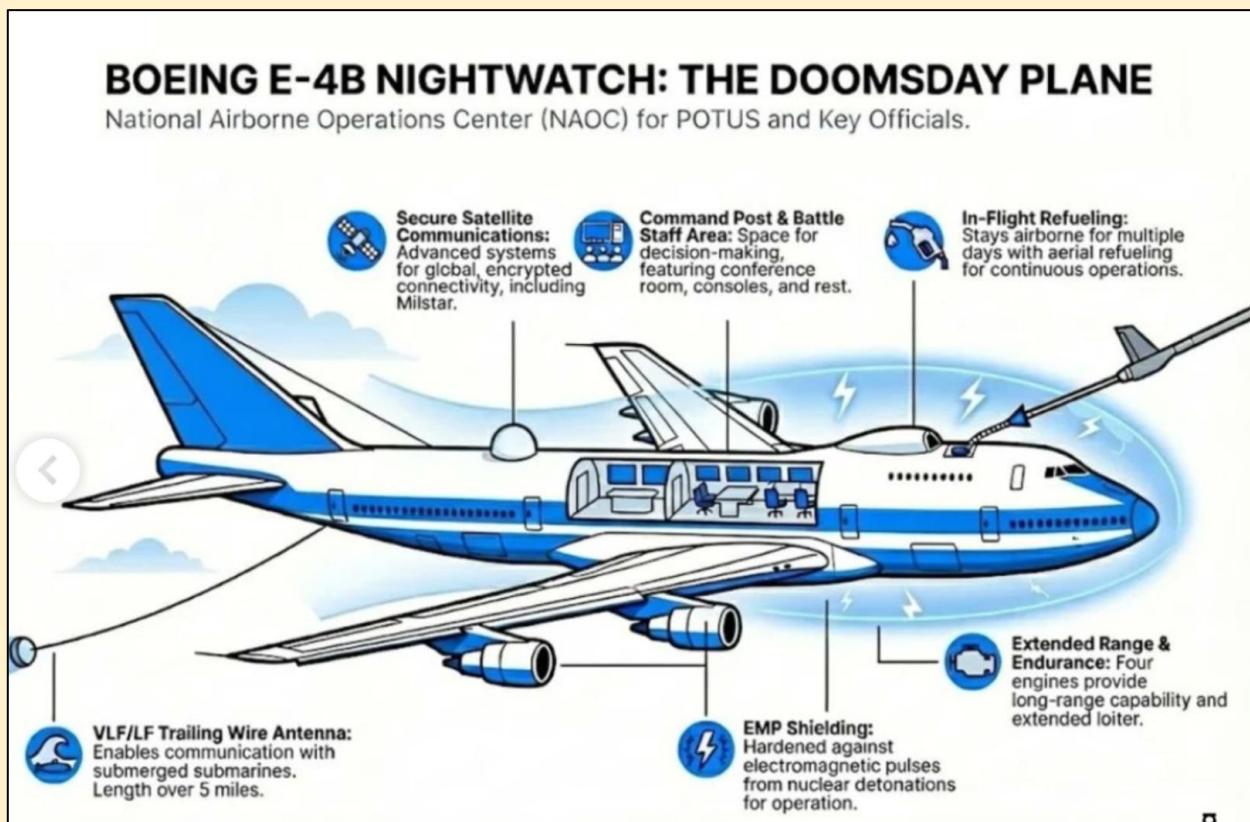
About Vehicle-to-Vehicle (V2V) Communication Technology:

- **Definition:** It is defined as a direct communication method that allows vehicles to exchange information with one another.
- **Objective:** The initiative aims to strengthen road safety and reduce accidents across the country.
- **Significance:** It enhances driver awareness of their surroundings through wireless technologies and allows vehicles to communicate directly with each other without the need for a network.
- **Functioning:** The system will function through a device similar to a SIM card, which will be installed in vehicles. The technology will provide alerts related to safe vehicle distance and will also warn drivers about nearby roadside or stationary vehicles.
- **Mechanism:** Vehicles will receive real-time alerts when another vehicle comes too close from any direction. Each vehicle equipped with V2V technology continuously broadcasts and receives data such as speed, location, direction, acceleration and braking status.

- **Network Independence:** It operates on a **dedicated radio frequency (the 5.9 GHz band)** authorized by the Department of Telecommunications and does not require mobile networks or internet connectivity.
- **360-Degree Awareness:** The system provides **signals from the front, rear, and sides**, alerting drivers to hazards even when they are beyond the line of sight (e.g., hidden by sharp curves or other vehicles).
- **Low Latency:** Communication happens nearly instantly (**less than 20 milliseconds**), which is critical for preventing high-speed collisions.
- **Advantage:** This feature will be extremely useful during **foggy conditions** when visibility between vehicles drops to almost zero.

BOEING E-4B NIGHTWATCH

Boeing E-4B Nightwatch, known as the 'Doomsday plane', has been sighted in Washington, days after the US captured Nicolas Maduro and his wife.



About Boeing E-4B Nightwatch:

- **Other names:** The Boeing E-4B Nightwatch is widely known as the "**Doomsday Plane**".
- **Mandate:** Its mission is to ensure the **US government can continue to function even if "doomsday" arrives**.
 - **Uniqueness:** It is the **most secretive aircraft in the US military's arsenal**. It serves as the National Airborne Operations Center and functions as a flying command post.
 - **Significance:** It is designed to keep the US government operational during **extreme scenarios such as nuclear war, catastrophic attacks on US soil**, or the destruction of ground-based command centres.
 - **Part of NC3:** It is a core component of the military's **Nuclear Command, Control, and Communications system**, often referred to as NC3, which enables senior leaders to authorize and manage nuclear forces under all conditions.

- **Operational planes:** There are **currently four E-4Bs** in service. At least one aircraft is kept on continuous alert at all times.
- **Previous uses:** The E-4B has been activated in a real emergency **only once, in the aftermath of the September 11, 2001 attacks**, when it was used to ensure continuity of government.
- **Modification:** It is built on a heavily modified **Boeing 747-200 airframe**.
- **Carrying capacity:** Each E-4B has a maximum takeoff weight of **around 360,000 kilograms**, an unrefuelled endurance of roughly 12 hours, and an operating ceiling above 30,000 feet (about 9,091 metres). It can carry **up to 111 personnel**, including senior command staff, intelligence teams, and communications specialists.
- **Structure:** The main deck is divided into **six functional areas**, including command workspaces, conference and briefing rooms, an operations floor, communications hubs, and rest areas. The aircraft is hardened against electromagnetic pulse effects, **shielded against nuclear and thermal radiation**, and equipped with multiple layers of secure communications.

PANKHUDI PORTAL

The Ministry of Women and Child Development recently launched PANKHUDI portal aimed at strengthening initiatives for women and child development.

PANKHUDI Digital Portal

Transforming CSR Contributions for
Women and Child Development in India



About PANKHUDI Portal:

- **Nature:** It is an **integrated Corporate Social Responsibility (CSR)** and partnership facilitation digital portal.
- **Nodal ministry:** It is launched by the **Ministry of Women and Child Development**.
- **Objective:** It is aimed at **strengthening** coordination, transparency, and structured stakeholder participation in **initiatives for women and child development**.
 - **Single-window digital platform:** It works as a single-window digital platform, Non-Resident Indians (NRIs), Non-Governmental Organisations (NGOs), Corporate Social Responsibility (CSR) contributors, corporate entities, and government agencies.
 - **Key Thematic Areas:** Nutrition, health, Early Childhood Care and Education (ECCE), child welfare, protection and rehabilitation, and women's safety and empowerment.

- **Supports Flagship Missions:** It supports and strengthens the implementation of flagship missions, such as **Mission Saksham Anganwadi & Poshan 2.0**, Mission Vatsalya, and Mission Shakti.
- **Transparency:** Contributors register on the portal, identify initiatives, submit proposals, and **track the status of their contributions** through clearly defined approval workflows.
- **Non- Cash Financial Transactions:** All contributions through the portal are accepted **only through non-cash modes**.
- **Significance:** It marks a significant step towards leveraging digital solutions for inclusive, collaborative, and **outcome-oriented development of women and children** across India.

WEIMAR TRIANGLE

EAM S Jaishankar recently participated in India's first-ever engagement in the Weimar Triangle, with French and Polish counterparts along with German representatives.



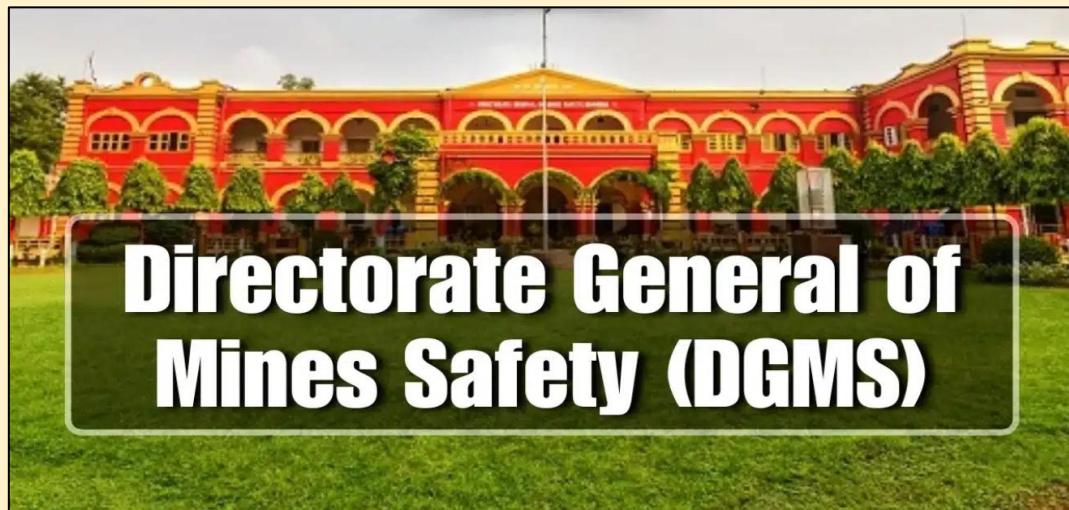
About Weimar Triangle:

- **Countries involved:** It is a regional **political grouping** of France, Germany, and Poland.
- **Formation:** It was formed on **29 August 1991** by a joint declaration issued in Weimar, Germany, by the Foreign Ministers of the three countries.
- **Nomenclature:** The group takes its name from the city of Weimar, Germany, where the initial meeting took place. The Triangle was initially the key forum for supporting German-Polish reconciliation after World War II.
- **Structure:** It has **no formal institutional headquarters** or permanent secretariat; it operates through regular summit meetings of heads of state and foreign ministers.

- **Utility:** Although the Weimar Triangle still has no institutional structure, it remains a **framework of reference at the political level**.
- **Objectives:** It had **three objectives**:
 - To involve France in German-Polish reconciliation by building on the Franco-German experience;
 - To strengthen dialogue and political cooperation between the three countries,
 - To support Poland in its process of integration into NATO and the European Union (EU).
- **Significance:** Regular meetings at levels including heads of government, foreign ministers, and European affairs ministers have enabled **coordination on EU policies**, with notable outcomes including **Poland's accession to NATO in 1999 and the European Union in 2004**.
- **Role beyond diplomacy:** Beyond diplomacy, it encompasses civil society efforts like **youth exchanges, academic collaborations, and business networks** to promote intercultural dialogue and mobility.

DIRECTORATE GENERAL OF MINES SAFETY (DGMS)

The Directorate General of Mines Safety (DGMS), celebrated its 125th Foundation Day today at its Headquarters in Dhanbad, Jharkhand.



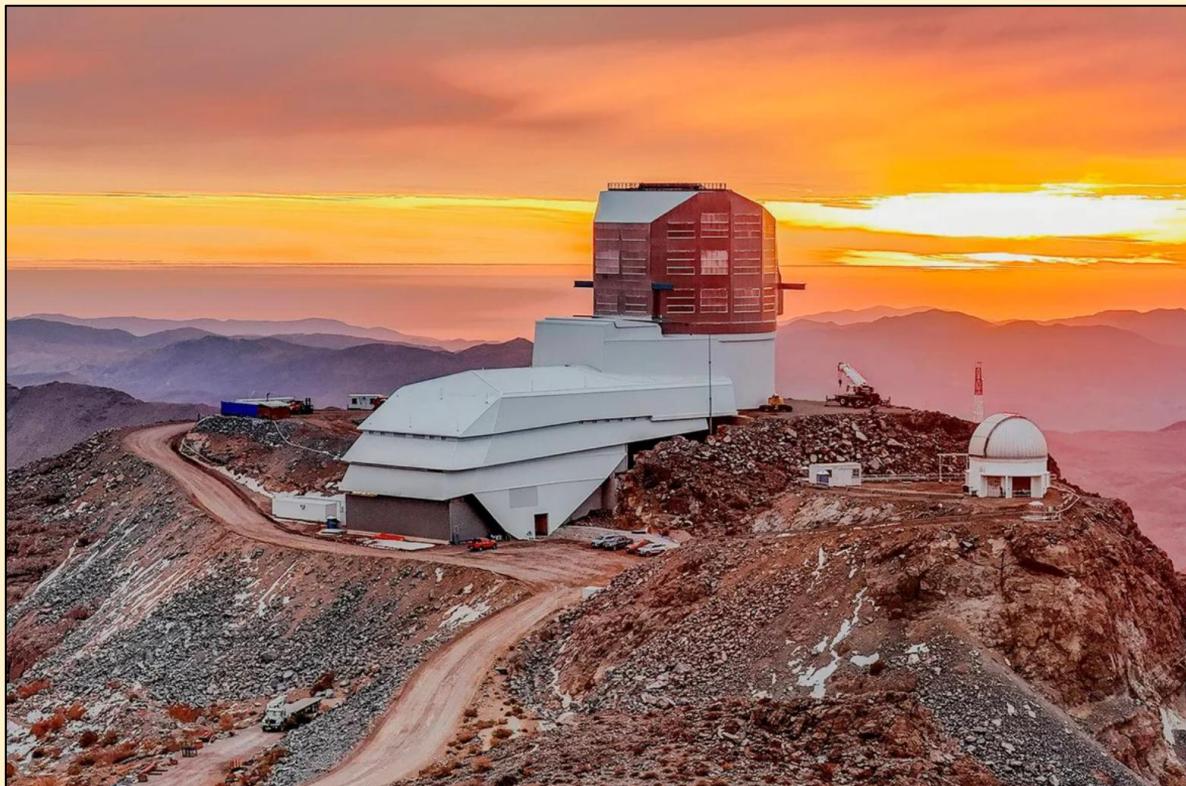
About Directorate General of Mines Safety (DGMS):

- **Nodal ministry:** It is the regulatory agency under the **Ministry of Labour & Employment**, Government of India.
- **Objective:** It dealt with matters pertaining to occupational safety, health, and **welfare of persons employed in mines**.
 - **Regulation:** The objective is regulated by the **Mines Act, 1952**, and the Rules and Regulations framed thereunder.
 - **Headquarters:** It has its headquarters at **Dhanbad (Jharkhand)** and is headed by the Director-General of Mines Safety.
- **Constitutional provision:** Under the Constitution of India, the safety, welfare, and health of workers employed in mines are the concern of the Central Government (**Entry 55-Union List-Article 246**).

- **History:** For administering the provisions of the **Indian Mines Act, 1901**, the Government of India set up a “**Bureau of Mines Inspection**” on the 7th January 1902 with headquarters at Calcutta.
- **Change in name:** The name of the organization was changed to **the Department of Mines** in 1904, and its headquarters shifted to Dhanbad in 1908. On 01.01.1960, the organization was renamed as “**Office of the Chief Inspector of Mines**”. Since 01.05.1967, the office has been redesignated as the DGMS.
- **Focus areas:** The mission of the DGMS is to continually improve **safety and health standards**, practices, and performance **in the mining industry and upstream petroleum industry** by implementing:
 - proactive safety and health strategies;
 - continuous improvement of processes;
 - effective use of resources;
 - commitment and professional behaviour in its personnel.

VERA C. RUBIN OBSERVATORY

Scientists analyzing the first images from the Vera C. Rubin Observatory have discovered the fastest-spinning asteroid in its size class yet.



About Vera C. Rubin Observatory:

- **Location:** It is located 8,684 feet above sea level atop the **Cerro Pachón mountain in the Chilean Andes**, where dry air and dark skies provide one of the world's best observing locations.
- **Nomenclature:** It is named after **American astronomer Vera C. Rubin**, who provided evidence about dark matter for the first time in the 1970s.
- **Funding:** It is jointly funded by the **U.S. National Science Foundation and the U.S. Department of Energy's Office of Science**.

- **Goals:** The observatory has **four main scientific goals:**
 - Understand the nature of dark matter and dark energy.
 - Create an inventory of the asteroids, comets, and other objects in the solar system.
 - Map the Milky Way and help reconstruct its history.
 - Explore objects — like exploding stars and black holes — that change position or brightness over time.
- **Centrepiece:** The centrepiece of the observatory is the **Simonyi Survey Telescope**.
 - **Uniqueness:** The 8.4-meter telescope has the **world's largest digital camera**, which is the size of a small car, weighs 2,800 kg, and boasts a staggering resolution of 3,200 megapixels. It can capture about 45 times the area of the full moon in the sky with each exposure.
 - **Fastest-slewing telescope:** It is the fastest-slewing telescope in the world and takes **just five seconds to move and settle from one target to another**. This speed is due to the telescope's compact structure (owing to the three-mirror design) and its mount, which floats on a film of oil.
 - **Significance:** This observatory will provide comprehensive images of the night sky unlike anything astronomers have seen before. It will **constantly scan the sky of the southern hemisphere for 10 years**, creating an ultra-wide, ultra-high-definition time-lapse record of the universe.
- **Huge data:** It will produce approximately **20 terabytes of data every night**. The amount of data gathered by Rubin Observatory in its first year alone will be **greater than that collected by all other optical observatories combined**.

M-STRIPES

Forest staff who are to be involved in census of tigers and other wild animals will be using the advanced M-Stripes app at Anamalai Tiger Reserve.

About M-STRIPES:

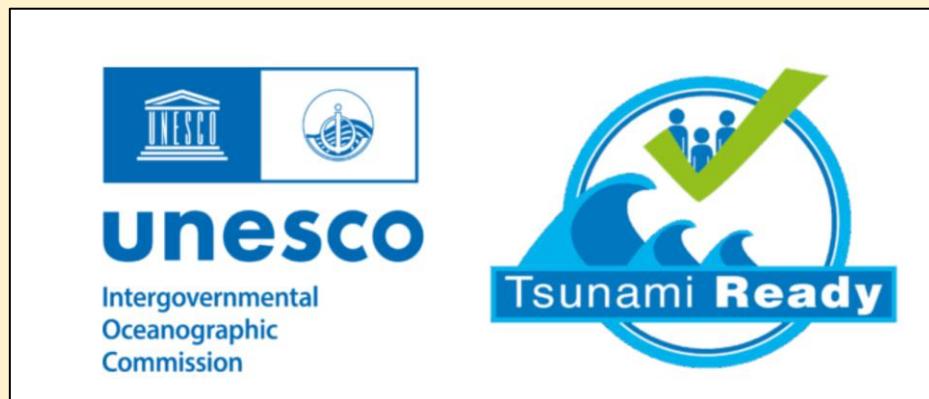
- **Full Form:** MSTRIPES stands for **Monitoring System for Tigers: Intensive Protection and Ecological Status**.
 - **Nature:** It is a **software-based monitoring system** created to assist patrol and protect tiger habitats.
 - **Launch:** It was launched by the **National Tiger Conservation Authority (NTCA)** along with the Wildlife Institute of India in 2010.
- **Objective:** It is designed to assist wildlife protection, **monitoring, and management of Protected Areas**.
 - **Technologies used:** It uses **Global Positioning System (GPS), General Packet Radio Services (GPRS), and remote sensing**.
 - **Role of forest guards:** Under MSTRIPES protocols, forest guards are expected to **patrol their beats and record their tracks using a GPS**, in addition to recording observations in site-specific data sheets.



- **Composition:** The programme consists of **two parts**:
 - an analytical engine with a central desktop software and
 - an online analysis tool, and an Android-based mobile application that records field observations and tracks using real-time GPS.
- **Focus areas:** It aims to
 - collect **information** from the field
 - create a **database** using modern Information Technology (IT)-based tools
- analyze the information using **GIS and statistical tools**
 - provide inferences that allow **tiger reserve managers** to better manage their wildlife resources.

INDIA TO HAVE 100 VILLAGES TO BE TSUNAMI-READY

Currently 24 coastal villages in Odisha have been recognized as Tsunami Ready **under Tsunami Ready Recognition Programme (TRRP)** by UNESCO based on verification by the National Tsunami Ready Recognition Board (NTRB).



- **Tsunami-ready village** is certified to the ones that **have high awareness about tsunami, hazard preparedness** and mapping, public display of evacuation maps, 24-hour warning systems, participation in mock drills etc.

About UNESCO-IOC Tsunami Ready Recognition Programme (TRRP)

- **About TRRP:** It is an **international voluntary community-based effort** by UNESCO-IOC to bolster risk prevention and mitigation across global coastal zones.
- **Methodology:** It has 12 preparedness indicators for a consistent evaluation, and recognition is renewable every four years.
- **Implementing agency in India:** NTRB established by the ministry of earth sciences, under the chairmanship of Director, INCOIS and members from Indian National Centre for Ocean Information Services (INCOIS), NDMA, MHA etc. implements TRRP.

India's other efforts to tackle tsunami

- **Tsunami Risk Management Guidelines:** NDMA **guidelines** recommend awareness generation, capacity building, education, training and R&D for better tsunami risk management.
- **Indian Tsunami Early Warning Centre (ITEWC):** Provides Tsunami advisories to Indian Ocean countries for last-mile connectivity.
- **Use of technology:** e.g. use of Bottom Pressure Recorders (BPRs) buoys, satellite communication for tsunami warning

About UNESCO's Intergovernmental Oceanographic Commission (IOC)

- **Established in:** 1960
- **Secretariat:** Paris, France
- **Aim:** Promotes international cooperation in marine sciences to improve management of the ocean, coasts, and marine resources.
- **Members:** 152 Member States (India is member).
- It is in charge of coordinating the **UN Decade of Ocean Science for Sustainable Development 2021-2030 (The Ocean Decade)**.

RIGHT TO FAIR COMPENSATION AND TRANSPARENCY IN LAND ACQUISITION, REHABILITATION AND RESETTLEMENT ACT, 2013

This Report of the Standing Committee on Rural Development and Panchayati Raj evaluates implementation and effectiveness of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCLARR Act, 2013).

 Issue / Observation	 Committee Recommendations
Faulty Implementation in Scheduled Areas: Violations occur despite statutory safeguards, including land undervaluation, superficial Gram Sabha consultations, and exclusion of vulnerable groups.	Strengthening Role of Gram Sabha: Make Gram Sabha consent mandatory for all land acquisitions and empower it to veto proposals which are contrary to local development plans or community interests.
Non-Compliance with PESA Rules: Provisions of the PESA Act regarding consultation are not being followed strictly in Scheduled Areas.	Codified Consent: Align the LARR Act with PESA to codify mandatory Gram Sabha consent for acquisitions in Scheduled Areas.
Violation of Forest Rights Act (FRA): Forest land is acquired without settling rights.	Integration of LARR and FRA: Loss of customary forest rights must be treated as economic displacement requiring full rehabilitation.
Superficial Assessments (SIA/EIA): Social and Environmental Impact Assessments are sometimes carried out as formalities with reports pre-designed to favor acquisition.	Strict Guideline Adherence: The Department of Land Resources must ensure both EIA and SIA are strictly followed to effectively mitigate adverse environmental and social impacts.
Failure of National Monitoring Committee (NMC): The NMC has failed to quell discontent in large projects like Ken-Betwa and Polavaram.	Basin-Wide Assessment: Projects must start with a single integrated "basin-to-basin" Social Impact Assessment. The NMC must be structurally strengthened to actively intervene, set timelines, and host a centralized grievance portal.
Land Classification Manipulation: Rural or "Greenfield" land is arbitrarily reclassified as urban or "Brownfield" (e.g., in Bharatmala) to reduce compensation liabilities.	Central Monitoring of Classification: Establish a dedicated Central Monitoring and Grievance Redressal Mechanism to oversee land classification processes. Mandate detailed disclosures for boundary changes and penalize officials involved in unauthorized manipulation to lower compensation.
Failure on Part of states and UTs to establish "Land Acquisition, Rehabilitation & Resettlement Authority" mandated under RFCLARR Act, 2013.	Ministry of Rural Development to proactively coordinate with State Governments to ensure the timely notification and operationalization of these authorities.

Key Issues / Observations

Faulty Implementation in Scheduled Areas

- Violations occur in **Scheduled Areas** despite statutory safeguards.
 - **Scheduled Areas** are regions with a significant tribal population requiring special protections under the Constitution.
- Issues include **undervaluation of land**.
- **Gram Sabha consultations** are often superficial.
- Vulnerable groups are frequently **excluded** from the consultation process.

Non-Compliance with PESA Rules

- The **Provisions of the PESA Act** regarding consultation are not strictly followed in Scheduled Areas.
- **PESA** refers to the **Panchayats (Extension to Scheduled Areas) Act, 1996**, which mandates local self-governance and consultation for development projects.

Violation of Forest Rights Act (FRA)

- Forest land is acquired without **settling customary forest rights**.
- The **Forest Rights Act (FRA), 2006** recognizes the rights of forest-dwelling communities over land and resources.

Superficial Assessments (SIA/EIA)

- **Social Impact Assessments (SIA)** and **Environmental Impact Assessments (EIA)** are sometimes carried out merely as formalities.
- Reports are often **pre-designed to favor land acquisition**.
- **SIA** evaluates the social consequences of a project, while **EIA** assesses environmental effects.

Failure of National Monitoring Committee (NMC)

- The **National Monitoring Committee (NMC)** has failed to quell discontent in large projects.
 - Examples include the **Ken-Betwa** and **Polavaram** projects.
- **NMC** is responsible for monitoring compliance with RFCLARR provisions.

Land Classification Manipulation

- Rural or **Greenfield land** is sometimes reclassified as **urban or Brownfield**.
- **Greenfield land** refers to undeveloped land, while **Brownfield land** refers to previously developed or urbanized land.
- Such reclassification reduces compensation liabilities for project developers.

Failure to Establish Authorities

- Many states and union territories have failed to establish the **Land Acquisition, Rehabilitation & Resettlement Authority** mandated under the RFCLARR Act, 2013.
- These authorities are meant to adjudicate disputes and oversee rehabilitation processes.

Committee Recommendations

Strengthening Role of Gram Sabha

- **Gram Sabha consent** should be made mandatory for all land acquisitions.
- Gram Sabha should have the power to **veto proposals** contrary to local development plans or community interests.
- This empowers local communities to influence land acquisition decisions.

Codified Consent in Scheduled Areas

- The **LARR Act** should be aligned with **PESA** to codify mandatory Gram Sabha consent in Scheduled Areas.
- This ensures statutory protection for tribal and vulnerable communities.

Integration of LARR and FRA

- Loss of customary forest rights must be treated as **economic displacement** requiring full rehabilitation.
- Economic displacement refers to the loss of livelihood or productive resources due to development projects.

Strict Guideline Adherence

- The **Department of Land Resources** must ensure both **EIA and SIA** are strictly followed.
- This is necessary to effectively mitigate adverse environmental and social impacts.

Basin-Wide Assessment

- Projects should begin with a **single integrated “basin-to-basin” SIA**.
- The NMC must be structurally strengthened to **actively intervene, set timelines, and host a centralized grievance portal**.

Central Monitoring of Land Classification

- A dedicated **Central Monitoring and Grievance Redressal Mechanism** should oversee land classification processes.
- Detailed disclosures must be mandated for **boundary changes**.
- Officials involved in unauthorized land classification manipulations should be penalized.

Proactive State Coordination

- The **Ministry of Rural Development** should coordinate proactively with state governments.
- This ensures **timely notification and operationalization** of Land Acquisition, Rehabilitation & Resettlement authorities.

LVM 3 LAUNCH VEHICLE

LVM3-M6 is the **Sixth Operational Flight** of LVM3 and the **third dedicated commercial mission** to launch the **BlueBird Block-2 satellite** of AST SpaceMobile, USA.



- Launched from **Satish Dhawan Space Centre, Sriharikota**, the mission is a part of commercial agreement between **NewSpace India Limited (NSIL)** and **AST**, a US based Company.
 - Incorporated in 2019, as a **wholly owned Government Company** under **Department of Space**, NSIL serves as the **commercial arm of ISRO**.

About Blue Bird Block -2

- **Part of a global LEO constellation:** Provides **direct-to-mobile connectivity** through satellite; Enable 4G and 5G voice and video calls, texts, streaming, and data, etc.
 - LEO is an orbit **relatively close to Earth's surface** with an altitude around 160-1000 km, useful for **satellite imaging** and is the site of **International Space Station (ISS)**.
- **Key Features:** 223m² phased array, making it **largest commercial communications satellite** ever deployed into LEO.
 - It is also the **heaviest payload (6,100 kg)** to be launched by LVM3.

About ISRO's LVM3 Launch Vehicle

- **Three Stages:** Comprising two solid strap-on motors (S200), a liquid core stage (L110), and a cryogenic upper stage (C25).
- **Key Features:** Lift-off mass of 640 tonnes, payload capability of 4,200 kg to **Geosynchronous Transfer Orbit (GTO)**.
 - GTO is an **elliptical orbit** with an altitude **around 37,000 km**, for transferring spacecraft to **geosynchronous (and also geostationary) Earth orbits**.
- **Previous Missions:** Chandrayaan-2, Chandrayaan-3, and two OneWeb missions carrying 72 satellites.

CLICK HERE

[Monthly Current Affairs Magazine](#)

Click our Channels





NURTURING YOUNG MINDS TOWARDS TOMORROW'S CIVIL SERVICE

COURSES

➤ Prelims Cum Mains Regular Batch

Course Fee: ₹ 49,200 (₹ 40,000 + 18% GST ₹ 7,200 + Caution Deposit ₹ 2,000)

➤ Prelims Cum Mains Weekend Batch

For the Working Professionals & students who are doing their UG/PG

- ◆ Course Fee: Ongoing Degree/PG students: ₹ 41,300 (₹ 35,000 + 18% GST ₹ 6,300)
- ◆ Course Fee: Working Professionals : ₹ 49,200 (₹ 40,000 + 18% GST ₹ 7,200 + Caution Deposit ₹ 2,000)

➤ Civil Service Foundation Course

For Higher Secondary School Students

Course Fee: ₹ 5,900 (₹ 5,000 + GST ₹ 900)

➤ Talent Development Course

For High School Students

Course Fee: ₹ 4720 (₹ 4,000 + 18% GST ₹ 720)

➤ REHEARSE- Prelims Test Series

38 Test papers including 3 exclusive current affairs tests and 5 CSAT papers

➤ RESILIENCE- Mains Test Series

17 Tests including compulsory papers

➤ REKINDLE- PCM REPEATERS BATCH

Mentorship, Weekly Current Affairs classes, Bi Weekly CSAT classes, Prelims Test Series, Revision classes, Extensive Answer Writing class / Practices

➤ REPHRASE- Mains Answer Writing Programme

This answer writing exercise will cover Essay, General Studies - I, General Studies - II, General Studies - III & General Studies - IV papers



KEY HIGHLIGHTS

- Prelims & Mains test series with All Kerala rank list.
- Expert faculties.
- Library facility across the centres.
- Instalment facility for fee payment available to BPL category students.

Optional Subjects

Geography, History, Malayalam, Political Science & International Relations, Public Administration and Sociology

Course Fees : Rs. 11,800/- (Fees Rs 10,000/- + GST Rs.1,800/-).

KERALA STATE CIVIL SERVICE ACADEMY

Charachira, Kowdiar P.O. Thiruvananthapuram - 695003. Phone: 0471-2313065, 2311654.
Email: directorcccek@gmail.com, info.ccek@gmail.com Web : <https://kscsa.org>

LOG ON



For more details contact:
82810 98864