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# DAILY CURRENT AFFAIRS (DCA)

**Time:** 45 Min

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## Table of Content

# NCRB 2023 REPORT HIGHLIGHTS ALARMING TRENDS OF ROAD ACCIDENTS IN INDIA

## Context

- According to the **National Crime Records Bureau (NCRB),** India recorded 4,64,029 road accidents in 2023, leading to 1,73,826 deaths and 4.47 lakh injuries.

## Key Findings

- Nearly **46%** of the victims were two-wheeler riders, reflecting the vulnerability of motorcyclists in India's traffic ecosystem.
- **State-Wise Trends:**
  - **Tamil Nadu** (11,490 deaths) and **Uttar Pradesh** (8,370 deaths) reported the highest **two-wheeler accident** deaths.
  - **Uttar Pradesh recorded the maximum fatalities** on National Highways (7,041 deaths) and also topped deaths from SUVs and trucks. Other high-burden states included **Maharashtra, Karnataka, and Madhya Pradesh.**

## Major Causes of Road Accidents

- **Over-speeding** was the leading cause, responsible for 58.6% of deaths.
- **Dangerous/careless driving** and overtaking accounted for 23.6%.
- **Other causes include** poor weather, driving under influence of alcohol/drugs, and animal crossings, contributing to **2.8% of deaths.**
- **Poor Road Conditions** such as Potholes, unmarked speed breakers, and lack of signage increase accident likelihood, especially in rural areas.
- **Vehicle Defects** like brake failure, tire bursts, and other mechanical issues can trigger loss of control.

## Key measures taken for road safety

- **Global measures:**
  - Road safety, a public health and development priority, is crucial to achieving the **UN Sustainable Development Goals (SDGs).**
  - In September 2020, the UN General Assembly launched the **Decade of Action for Road Safety 2021-2030** which aims to reduce road traffic deaths and injuries by at least **50% by 2030.**
- **Steps taken by India:**
  - Implementation of the **Motor Vehicles (Amendment) Act, 2019.** The Act hike in penalties for traffic violations, electronic monitoring of the same, enhanced penalties for juvenile driving.
  - **Computerization/automation** of vehicle fitness tests, recall of defective vehicles, streamlining the third party insurance and payment of increased compensation for hit and run cases etc.
  - **Bharat New Car Assessment Programme (Bharat NCAP):** It provides safety ratings for passenger cars, empowering consumers to make informed decisions.

## Key Committees & Policy Frameworks

- **The Supreme Court's Committee on Road Safety (SCCoRS)** mandates the constitution of **District Road Safety Committees** in every district to improve road safety, as per The Motor Vehicles Act, 1988.
- **Sundar Committee on Road Safety and Traffic Management (2005);**
  - It recommended the creation of a **National Road Safety Policy**, approved by the Union Cabinet in **2010.**
  - It also proposed the establishment of a **National Road Safety Board** to oversee safety regulations and enforcement.

## Focus areas for better safety

- **Helmet use:** It must be enforced among motorcyclists as well as their pillion passengers. Correct helmet use can lead to a 42% reduction in the risk of fatal injuries.
- **Speeding must be reduced** and also there should be no tolerance for drink-driving.
- **Road infrastructure should be enhanced:** Many roads are not in a safe condition, although government programmes in recent years have led to rapid improvements.
- **Behavioral changes:** Large-scale public awareness campaigns such as the new UN global campaign for road safety **#MakeASafetyStatement**, involving international celebrities, must be undertaken to secure behavioral changes.

**Source: TH**

## VISVESVARAYA, MUTHULAKSHMI AND MAHALANOBIS

### In Context

- Recent national commemorations and public discussions have revisited the enduring legacies and highlighted the continued influence of **Mokshagundam Visvesvaraya, Muthulakshmi Reddy, and Prasanta Chandra Mahalanobis** in 2025.

### Mokshagundam Visvesvaraya

- He was born on September 15, 1861 and is regarded as one of India's greatest engineers whose pioneering work revolutionised infrastructure development.
- He also served as the **Diwan of Mysore** and **president of the All-India Manufacturers' Organisation.**
- He was a key **figure in India's push for industrial modernity** during colonial times.
- He led pioneering projects in **irrigation, flood control, education, infrastructure, and economic planning.**
- He believed in self-reliance, integrity, and national progress through education and development.
- He was conferred with the **Bharat Ratna in 1955** and his legacy extends beyond engineering to economics, governance and nation-building, making him one of the most influential figures in modern India.

### Muthulakshmi Reddy

- Muthulakshmi Reddy, born in Pudukottai, overcame early discrimination to become the **first Indian woman surgeon from Madras Medical College.**
- A pioneer in women's rights, she was also the first woman legislator in Madras, who fought against the **Devadasi system**.
- She founded the Avvai women's shelter, and established the Adyar cancer hospital with a commitment to equal treatment for all patients.
- Her legacy lives on through Tamil Nadu's maternity benefit scheme named after her, and her inspirational impact remains strong in her hometown.

### Prasanta Chandra Mahalanobis

- Prasanta Chandra Mahalanobis, initially a science student in England, became a pioneer in applying statistics for India's economic development.
- He founded the **Indian Statistical Institute in 1932** and the **National Sample Survey in 1950,** which played a key role in shaping India's data-driven planning, especially during the **Second Five Year Plan focused on industrial growth**.
- His surveys provided critical insights into poverty, employment, and consumption across India.
- He believed statistics should serve the purpose of addressing poverty, highlighting his commitment to public service and national progress—values shared by other reformers like Visvesvaraya and Muthulakshmi Reddy.

### How did they shape modern India?

- They made foundational contributions to independent India through public service and institutional development.
- United by their commitment to public service, institutional reform, and social progress, they helped define India's post-independence aspirations and left enduring legacies in engineering, healthcare, and economic governance.

**Source:TH**

## UNION CABINET APPROVES 'NATIONAL PULSES MISSION'

### In News

- The Union Cabinet, chaired by the Prime Minister has approved the **Mission for Aatmanirbharta in Pulses.**

### About 'National Pulses Mission'

- It is a six-year initiative which was announced in the FY 2025-26 Budget and will be implemented from 2025-26 to 2030-31, with a financial outlay of Rs 11,440 crore.
- It is a landmark initiative aimed at boosting domestic production and achieving **self-sufficiency (Aatmanirbharta)** in **pulses**.
- It is supported by Indian Council of Agricultural Research, Krishi Vigyan Kendras, and state agencies.
- It addresses **rising demand through a comprehensive strategy** involving research, seed systems, area expansion, procurement, and price stability.
- It will promote **high-yield, pest-resistant, climate-resilient varieties**, distribute 126 lakh quintals of certified seeds and 88 lakh free seed kits, and expand cultivation by 35 lakh hectares, especially in rice fallow areas.
- It will also develop post-harvest infrastructure, including 1,000 processing units with subsidies, and ensure 100% procurement of Tur, Urad, and Masoor under PM-AASHA.

### Rationale for the Mission

- **Import Dependency:** India imported a record 7.3 million tonnes of pulses worth $5.5 billion in 2024-25 due to stagnant domestic production and climatic factors like El Niño-induced drought.
- **Growing Demand:** India's rising incomes and changing dietary patterns have increased consumption faster than production growth.
- **Self-Reliance Goal:** The mission is crucial to bridge the gap between rising demand and insufficient domestic supply, conserve foreign exchange, improve rural incomes, and enhance food security.

### Challenges Ahead

- Price volatility in global markets.
- Climate shocks (drought, erratic monsoon).
- Post-harvest losses due to poor storage.
- Farmers' dependence on MSP crops like rice/ wheat over pulses.
- The domestic production has not kept pace with demand, leading to a 15–20% increase in pulse imports.

### Way Ahead

- Strengthen Seed–Market–Storage chain.
- Promote intercropping of pulses in rice & wheat belts.
- Enhance irrigation & mechanization support.
- Expand nutri-cereal + pulses combinations in mid-day meals & PDS.
- Use digital platforms & FPOs for better market linkages.

### Conclusion

- Pulses hold special importance in India's cropping systems and diets. India is the world's largest producer and consumer of pulses.
    - Production is regionally concentrated, with **Madhya Pradesh, Maharashtra, and Rajasthan** contributing about **55%**, and the top ten states accounting for over **91% of national output.**
- Therefore 'National Pulses Mission' seeks to achieve the goal of **Atmanirbharta (self-reliance) in pulse**s, reduce import dependency and conserve valuable foreign exchange while boosting farmers' incomes.
- This mission will also accrue significant environmental benefits in the form of climate resilient practices, and improved soil health and making productive use of crop fallow areas.

**Source :PIB**

## AMENDMENT IN INTERNATIONAL HEALTH REGULATIONS (IHR)

### Context

- Recently, the amended International Health Regulations (IHR) officially entered into force, marking a historic milestone in global health governance.

### About International Health Regulations (IHR)

- **Historical Background:**
    - **International Sanitary Conference (Paris, 1851):** to address cholera spreading along European trade routes; focused on **quarantine rules** and **information exchange;**
    - **International Sanitary Regulations (1951):** The establishment of the **World Health Organization (WHO) in 1948** eventually consolidated the fragmented conventions and treaties related to **maritime health** and **aerial navigation**.
- **International Health Regulations (IHR), 1969:** It narrowed its scope to **three diseases**: cholera, plague, and yellow fever.
    - Vaccination certificates and quarantine rules remained central.
    - **IHR** is a **legally binding framework** for 196 States Parties, including **all 194 WHO Member States.**
- **IHR, 2005:** The **SARS outbreak of 2003** exposed gaps in the older framework.
    - In response, the **2005 revision** expanded coverage to any public health emergency of international concern (PHEIC)**.** Key features included:
        - 24-hour notification of events to WHO;
        - Development of national 'core capacities';
        - Establishment of 24/7 communication channels;
- The latest amendments—**adopted by consensus** at the **77th World Health Assembly in 2024** that reflects lessons learned from COVID-19 and decades of evolving public health policy.
    - **The World Health Organisation (WHO)** acts as the **Secretariat of the IHR**, facilitating coordination but not enforcing compliance. It provides technical guidance, alerts, and support during health emergencies.

**Amendment Process**

- **Article 55:** It allows proposals from States Parties or the WHO Director-General.
  - Adoption requires a **majority decision** in the **World Health Assembly (WHA)**.
  - Countries **may reject or reserve provisions** under **Articles 61–62.**
- **Institutional Mechanisms:**
  - **Emergency Committee (Article 48):** It advises the WHO Director-General on whether an event qualifies as a PHEIC or a *Pandemic Emergency*, guiding temporary recommendations.
  - **Review Committee (Article 50):** It evaluates amendments, standing recommendations, and other technical questions.

### Key Highlights in Recent Amendments

- **Introduction of 'Pandemic Emergency' Classification: Pandemic Emergency** applies when a communicable disease spreads widely across multiple States, **overwhelms health systems**, and causes **major social and economic disruption** requiring **rapid, coordinated international action**.
  - It goes beyond the existing **Public Health Emergency of International Concern (PHEIC)**. The new classification enables:
    - Earlier international alerts;
    - Stronger coordination among countries;
    - Enhanced access to medical countermeasures;
- **Establishment of National IHR Authorities:** The amendments mandate the creation of **National IHR Authorities in each member country,** to streamline implementation**.**
  - It aims to coordinate across ministries — including **health, transport, trade, and security, u**nlike the Focal Point (a communication hub)**,** to implement the IHR.
  - **For India:** It means a **formal designation by the Union Ministry of Health and Family Welfare**, supported by updated legislation, expanded disease surveillance, stronger laboratories, and safeguards for personal data during emergencies.
- **Equity and Solidarity at the Core:** The revised IHR emphasizes equity and solidarity, particularly in access to vaccines, diagnostics, and treatments. Provisions have been added to:
  - Strengthen financing mechanisms;
  - Promote fair distribution of medical products;
  - Support low- and middle-income countries during global health crises;
- **Monitoring and Evaluation:** Compliance relies on **Joint External Evaluations (JEE)**, where international experts collaborate with national authorities to assess readiness in **surveillance, labs, workforce, and communication**.
  - These reviews help countries identify weaknesses and investment priorities.

Source: TH

## LIGHTNING STRIKES TOOK OVER 2,500 LIVES IN 2023: NCRB DATA

### Context

- As per the National Crime Records Bureau (NCRB) report **Accidental Deaths and Suicides in India**, lightning was responsible for the highest number of deaths in 2023, accounting for 39.7% of the 6,444 deaths attributed to 'forces of nature'.

### About

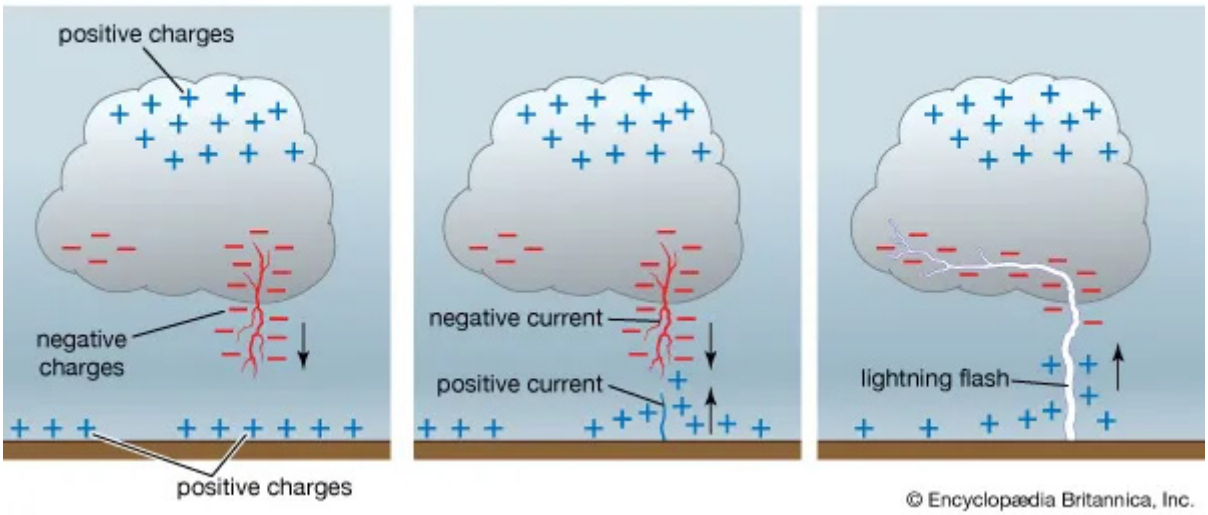
- In the last few years, lightning has emerged as a new climate challenge for India, which has seen a **400 per cent rise** in lightning strikes from 2019-20 to 2024-25.
- Under lightning strikes, **Madhya Pradesh (397), Bihar (345), Odisha (294), Uttar Pradesh (287), and Jharkhand (194)** were the biggest victim states/Union Territories (UTs).
- **Disaster Management Act, 2005** defines "disaster" broadly but does not specifically list lightning as a centrally notified disaster.
  - The union government has resisted demands to classify it as a disaster, arguing that most deaths could be prevented through public awareness and safety measures.

**State/UT wise deaths due to forces of nature during 2023**

### What is lightning?

- Lightning is an **electrical discharge between charged particles** in a cloud and the ground.
- Although air normally acts as an electrical insulator, when the voltage reaches about **3 million volts per meter (V/m)**, the air's insulating properties break down, allowing a powerful electric current to pass through.
- This results in a sudden release of energy, creating a bright flash and an associated sound wave (thunder).

**How lightning develops**




### Factors Responsible for Increased Incidents of Lightning in India

- **Geographic and Climatic Conditions:** Regions with high humidity, such as the eastern states and coastal areas, are more prone to thunderstorms and lightning.
  - The topography, including the Himalayas and the Western Ghats, also influences the frequency of lightning.
- **Monsoon Dynamics:** The monsoon season, with its intense rainfall and convective activity, is a major driver of lightning in India.
  - The convergence of moist air masses and the rising of warm, moist air during the monsoon season often lead to the formation of thunderstorms and lightning.
- **Urbanization and Industrialization:** Rapid urbanization and industrialization increase the number of artificial heat sources and aerosols in the atmosphere.
  - These enhance convection and contribute to more frequent thunderstorms, thus increasing lightning incidents.
  - Studies suggest that with every **1°C rise** in temperature, there is an **8-10 percent rise** in lightning strikes.
- **Climate Change:** Changes in global climate patterns are influencing local weather phenomena.
  - Increased temperatures and changes in humidity levels alter storm dynamics, potentially leading to more frequent and intense lightning events.
- **Agricultural Practices:** The burning of agricultural residues and deforestation can contribute to the accumulation of particulates in the atmosphere.
  - These particulates affect cloud formation and increase the likelihood of thunderstorms and lightning.

### Government Initiatives

- **CROPC (Climate Resilient Observing Systems Promotion Council)** has developed India's first Lightning Early Warning System, aimed at predicting lightning strikes and issuing alerts.
- The mobile app **SACHET** was launched to alert the public about imminent lightning hazards.
- In **2020**, **Damini** Lightning apps were developed by **Indian Institute of Tropical Meteorology (IITM)-Pune.**

### Way Ahead

- **Strengthening communication systems** to ensure warnings reach vulnerable populations effectively.
- **Training local authorities** to act swiftly upon early warnings.

- **Increasing public awareness** about lightning safety measures, especially during pre-monsoon and monsoon seasons.
- **Improving ground-level implementation** of NDMA protocols to minimize fatalities.

**Source: DTE**

## POLAR GEOENGINEERING

### Context

- A new study led by University of Exeter's Martin Siegert critically assesses five major geoengineering methods aimed at protecting Earth's polar regions and finds them ineffective, costly, and environmentally risky.

**What is geoengineering?**

- Geoengineering encompasses a wide range of ideas for deliberate large-scale attempts to modify Earth's climate.
- The two broadest classes involve removing carbon dioxide from the atmosphere and increasing the amount of sunlight reflected back into space (known as "solar radiation modification").
- Five most developed concepts For the polar regions.
  - **Stratospheric Aerosol Injection (SAI)** is a solar radiation modification technique that involves releasing fine particles like sulphur dioxide or titanium dioxide into the stratosphere to reflect sunlight and cool the Earth, specifically targeting polar regions.
  - **Sea Curtains** are large, flexible, buoyant structures anchored 700–1,000 meters deep on the seafloor and rising 150–500 meters.
    - Their goal is to block warm ocean water from reaching and melting ice shelves and grounding lines, thereby slowing the flow of ice from Greenland and Antarctica into the ocean.
  - **Sea ice management** involves using glass microbeads to increase ice reflectivity and pumping seawater to thicken ice or create snow, aiming to preserve Arctic sea ice.
  - **Basal water** removal aims to slow ice flow in Antarctic and Greenland ice sheets by extracting water from beneath ice streams to increase friction.
  - **Ocean fertilisation proposes** adding nutrients like iron to polar oceans to boost phytoplankton growth, enhancing carbon dioxide absorption and storage in the deep ocean.

### Key Findings of recent study

- **Stratospheric aerosol injection (SAI) :** Limited effectiveness due to polar darkness, risks of sudden temperature spikes if stopped, high ongoing costs, and potential global climate disruptions.
- **Sea curtains:** Huge technical and logistical challenges, high costs (over $1 billion per km), and harmful impacts on marine life and ocean circulation.
- **Sea ice management:** Ecotoxicity risks from microbeads, impractical scale and energy demands for pumping seawater, and questionable effectiveness coupled with very high costs.
- **Basal water removal:** Energy-intensive, emissions-heavy, and requires constant monitoring.
- **Ocean fertilisation:** Uncontrolled effects on marine ecosystems and impractical large-scale deployment.
  - The study concludes that these geoengineering methods fail to meet responsible climate intervention standards and may cause severe environmental harm.

### Suggestions

- The study advocates for "climate-resilient development," emphasizing decarbonisation and better ecosystem management as more effective, though challenging, solutions.
- Despite obstacles like fossil fuel dependency, high renewable infrastructure costs, political resistance, and global equity issues, reducing greenhouse gas emissions directly addresses the root cause of climate change and offers broader environmental benefits—making it the most promising path forward.

Source :TH

# NEWS IN SHORT

## AMAZON'S 'FLYING RIVERS'

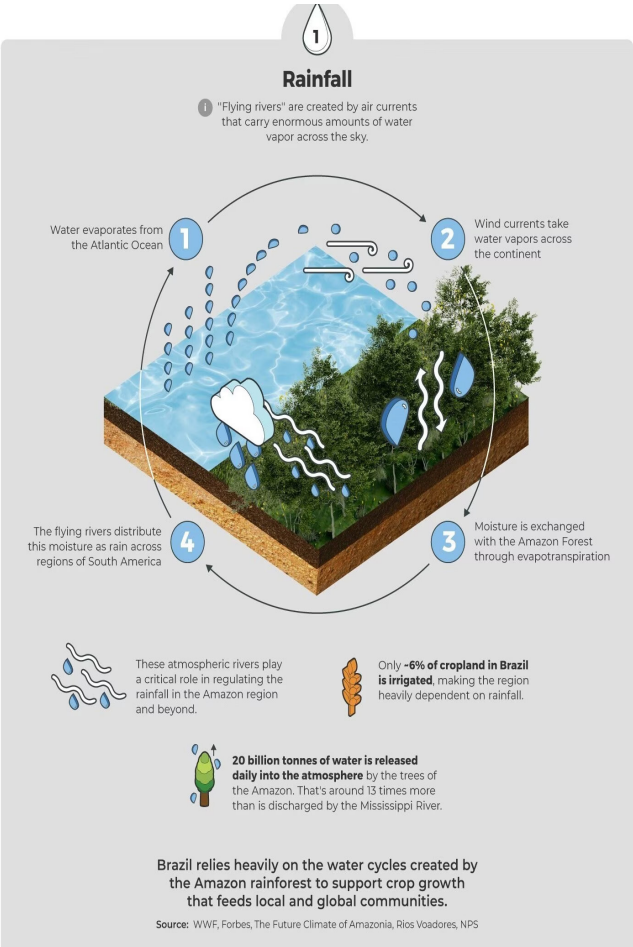
### In News

- The Amazon rainforest plays a critical role in **South America's water cycle** through the phenomenon **called "flying rivers".**

### About Flying Rivers

- "Flying rivers" are massive streams of water vapour carried in the atmosphere, invisible to the eye.

- **Process:**




- Moisture originates from the Atlantic Ocean.
- Trade winds push moist air westward across the equator.
- Amazon trees act as a **"biological pump"** – absorb water from soil → **transpire it back into the ai**r → release huge **amounts of water vapour.**
- This **recycled water forms clouds and rainfall further inland,** supplying regions as far as the **Andes and southern South America.**

**Source: IE**

## SIR CREEK

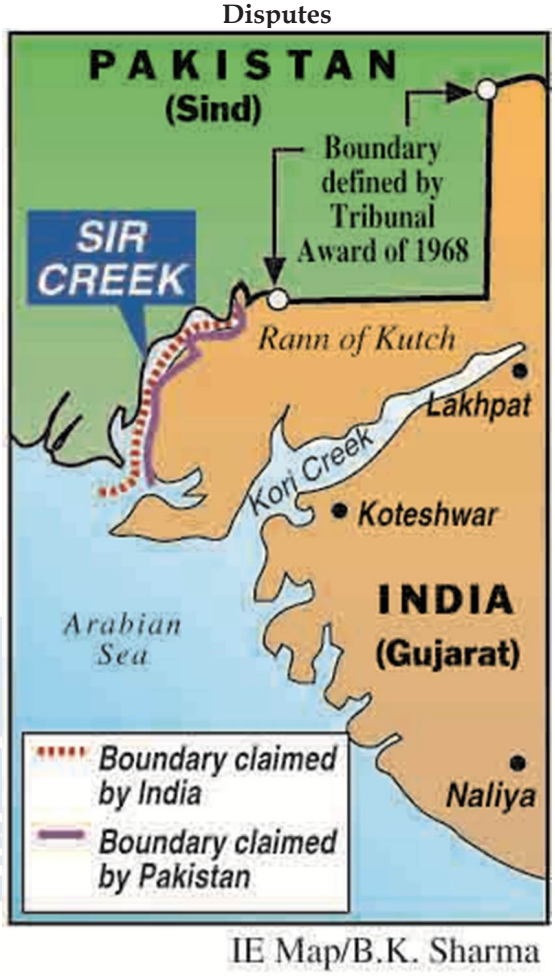
### In News

- Defence Minister Rajnath Singh warned Pakistan that any aggression in the disputed Sir Creek area will be met with a strong response.

### What is Sir Creek region?

- Sir Creek is a **96-km-long tidal estuary** or a "fluctuating tidal channel" between **Gujarat's Rann of Kutch and Pakistan.**
  - The Rann lies on the border between Gujarat and the Pakistani province of Sind.
- It is considered a disputed region due to varying interpretations of maritime boundary lines by both sides.
- Sir Creek is a strategic and sensitive zone along the Gujarat coastline

**Disputes**




IE Map/B.K. Sharma

- The Sir Creek dispute between India and Pakistan revolves around the interpretation of the maritime boundary in the marshy estuarine region between Gujarat and Sindh.
- Originating from a pre-independence disagreement between the princely states of Kutch and Sind over territorial claims, the issue was addressed in a 1914 resolution invoking the **thalweg principle**—setting boundaries along the **mid-channel of navigable waters.**

### Stand of both countries

- India supports this principle, citing navigability during high tide and historical maps, while Pakistan argues that Sir Creek is a tidal estuary and not navigable, thus rejecting the thalweg's applicability.
- The dispute gained prominence post-1965 and was partially resolved by the 1968 Indo-Pakistani Western Boundary Case Tribunal, which upheld most of India's claims over the Rann of Kutch.

- However, the boundary from the mouth to the top of Sir Creek and eastward to the Western Terminus remains contested.

Source :TH

## DIGILOCKER

### Context

- The Union Public Service Commission (UPSC) has announced that candidates' documents, including caste, income, and disability certificates, will now be verified through DigiLocker.

### About DigiLocker

- DigiLocker is a flagship initiative of the **Ministry of Electronics & IT (MeitY)** under Digital India programme.
- DigiLocker aims at 'Digital Empowerment' of citizens by providing **access to authentic digital documents** to citizen's digital document wallet.
- The issued documents in DigiLocker system are deemed to be at par with original physical documents as per **Rule 9A of the Information Technology (Preservation and Retention of Information by Intermediaries providing Digital Locker facilities) Rules, 2016.**

### Benefits to Agencies

- **It reduces the administrative overhead** by minimizing the use of paper and curtailing the verification process.
- **Digital Transformation:** Issued Documents available via DigiLocker are fetched in real-time directly from the issuing agency.
- **Secure Document Gateway:** Acts as a secure document exchange platform like payment gateway between trusted issuer and trusted Requester/Verifier with the consent of the citizen.

**Source: IE**

## HIKE IN WHEAT MSP

### Context

- The Union Cabinet, approved a **6.59%** increase in the Minimum Support Price (MSP) for wheat to **Rs 2,585** per quintal for 2026-27 marketing year.

### What is MSP?

- **Minimum Support Price (MSP)** is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices.MSP protects the producer-farmers against distress sale during bumper production years.
- **MSPs have no statutory backing** — a farmer cannot demand MSP as a matter of right.

### Crops Covered

- The Centre announces the **MSP for 22** mandated crops.These include:
  - **14 kharif crops** (paddy, jowar, bajra, maize, ragi, tur/arhar, moong, urad, groundnut, soyabean, sunflower, sesamum, niger seed, cotton),
  - **6 rabi crops** (wheat, barley, gram, masur/ lentil, rapeseed and mustard,and safflower) and
  - **2 commercial crops** (jute and copra).
- In addition, **MSP for Toria and de-husked coconut** is also fixed on the basis of MSPs of rapeseed & mustard and copra respectively.

#### Fair and Remunerative Price (FRP)

- FRP is the minimum price at which the sugar mills purchase sugarcane from farmers.
- The Cabinet Committee of Economic Affairs announces the FRP on the recommendations of CACP.

### Who decides what the MSP would be and how?

- The Cabinet Committee of Economic Affairs announces the MSP at the start of each sowing season, taking into account the recommendations of the Commission for Agricultural Costs and Prices (CACP).
- While recommending MSPs, the CACP looks at following factors:
  - the demand and supply of a commodity;
  - its cost of production;
  - the market price trends (both domestic and international);
  - inter-crop price parity;
  - the terms of trade between agriculture and non-agriculture (that is, the ratio of prices of farm inputs and farm outputs);
  - a minimum of 50 per cent as the margin over the cost of production; and
  - the likely implications of an MSP on consumers of that product.

#### Condition for Wheat Cultivation

- **Climate: Temperature:** Requires **10-15°C** during sowing (germination) and **21-26°C** during ripening and harvesting.
  - **Rainfall:** Optimal rainfall is **50-100 cm.** Excess rainfall can damage the crop.
  - **Sunlight:** Requires bright sunshine during the ripening period.
  - **Frost & Hailstorm:** Sensitive to frost at the flowering stage and susceptible to damage from hailstorms.
- **Soil: Type:** Grows best in well-drained loamy and clayey soil.
  - **pH Level:** Prefers slightly alkaline to neutral **soil (6-8 pH).**

**Source: TH**

## BIOMEDICAL RESEARCH CAREER PROGRAMME

### In News

- The Union Cabinet has approved **Phase-III (2025-26 to 2030-31) of the Biomedical Research Career Programme (BRCP)** to significantly **boost India's biomedical research ecosystem** and global impact.

### About

- The programme aims to strengthen research systems, reduce regional disparities in scientific capabilities, and establish world-class biomedical research capacity with a strong global presence and impact.
- BRCP is implemented through a partnership between the Department of Biotechnology (DBT), Government of India; the Wellcome Trust (WT), United Kingdom; and the India Alliance—a Special Purpose Vehicle (SPV) created for this initiative.

**Source: PIB**

## CENTRE WITHDRAWS APPROVAL FOR ANIMAL PROTEIN-BASED BIOSTIMULANTS

### In News

- The Centre has withdrawn approval for 11 animal protein-based biostimulants in India due to religious and dietary concerns.

### About Biostimulants

- A biostimulant is a substance, microorganism, or mixture that promotes plant growth by:
  - Stimulating natural physiological processes
  - Improving nutrient uptake and efficiency
  - Enhancing tolerance to abiotic stresses such as drought or heat
  - Common examples include humic acids, seaweed extracts, composted liquid manure, and beneficial bacteria and fungi.
- Biostimulants are officially categorized as distinct from fertilizers and insecticides—they neither supply nutrients directly like fertilizers nor control pests like pesticides.
- The Fertilizer (Inorganic, Organic or Mixed) (Control) Order, 1985 regulates biostimulants separately from fertilizers and pesticides, with stricter norms introduced post-2021.

**Source: TH**

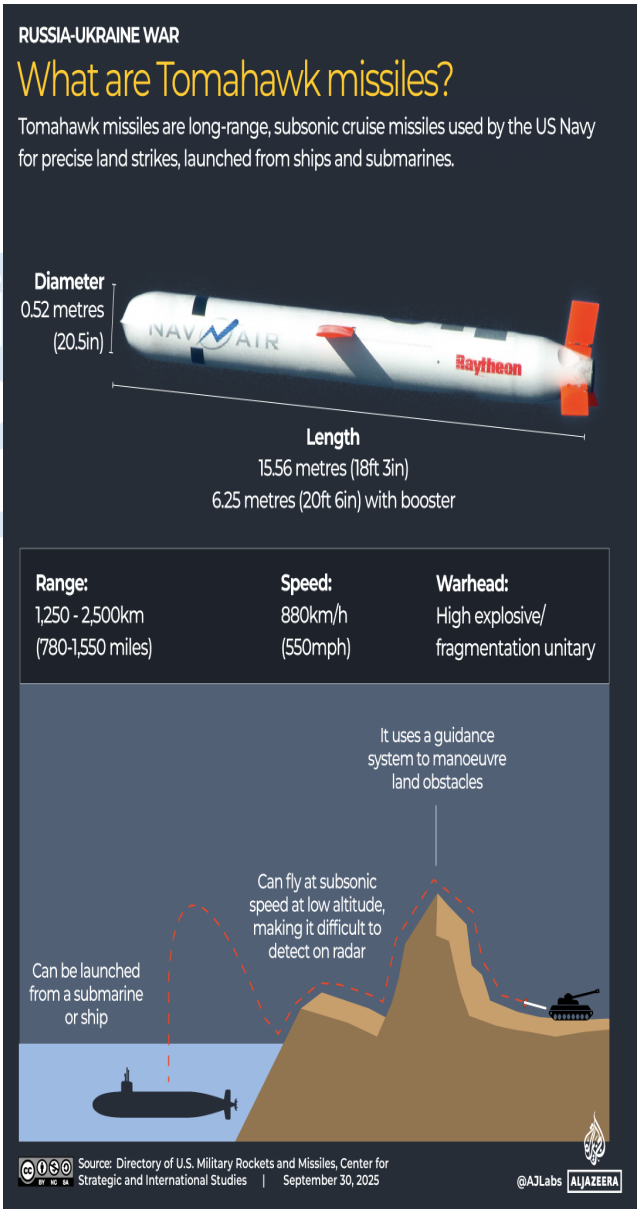
## US TOMAHAWK MISSILES

### Context

- Ukraine has requested long-range Tomahawk cruise missiles from the United States.

### What are Tomahawk missiles?

- Tomahawks are long-range subsonic cruise missiles that can be launched from ships, submarines or ground launchers.
- They have long-range, deep-strike capabilities, and can hit targets **1,250km-2,500km away.**
- They carry high-explosive warheads designed to penetrate hardened targets like military bunkers.
- They **avoid radar detection** by flying at **high subsonic speeds** while maintaining low altitudes.




**Source: ET**