

Current Affairs - 15 January 2025

DRAFT ISRAEL-HAMAS CEASEFIRE DEAL

Why in news?

Hamas has agreed to a draft ceasefire agreement in the Gaza conflict, with final approval pending from the Israeli Cabinet.

Background: Israel-Hamas Conflict

- **Hamas suddenly attacked Israel**
 - On October 7, 2023, Hamas launched a large-scale attack on Israel, firing thousands of rockets and infiltrating Israeli territory.
 - The assault resulted in over 1,200 deaths, including civilians, and the abduction of numerous hostages.
 - Some 100 Israelis are still captive inside Gaza, and the military believes at least a third of them are dead.
- **Offensive by Israel**
 - In response, Israel initiated a massive military offensive in Gaza, targeting Hamas and its infrastructure.
 - The offensive caused widespread destruction and civilian casualties, with over 64,000 deaths reported in Gaza as per The Lancet.
- **Ceasefire attempts**
 - The conflict drew global condemnation, highlighting humanitarian concerns.
 - The offensive has reduced large areas of the territory to rubble and displaced around 90% of Gaza's population of 2.3 million.
 - Hundreds of thousands are packed into tent camps along the coast where hunger is widespread.
 - Multiple ceasefire attempts followed, with negotiations involving the US, Egypt, and Qatar, but a long-term resolution remained elusive due to deep-rooted political tensions.

Current Affairs - 15 January 2025

Three-Phase Ceasefire Plan Overview

- **Basis:** The plan is based on a framework proposed by President Joe Biden in June 2024, though unresolved details and lack of guarantees for a sustained ceasefire present challenge.
- **Three-Phase Ceasefire Plan Overview**
 - **Phase 1: Ceasefire and Hostage Exchange**
 - A six-week ceasefire will commence, requiring a full Israeli military withdrawal from all populated areas in Gaza.
 - Hamas will release 33 Israeli hostages, including women, the elderly, and the wounded, in exchange for hundreds of Palestinian prisoners.
 - All civilian captives — living or dead — will be released by the end of this phase.
 - Humanitarian aid will be sent into Gaza, with 600 trucks entering daily.
 - Palestinians will return to their homes, although widespread destruction poses challenges.
 - **Phase 2: Further Hostage Release and Israeli Withdrawal**
 - Hamas will release remaining captives, mainly male soldiers, in exchange for additional Palestinian prisoners.
 - Israel will execute a “complete withdrawal” of its forces from Gaza.
 - The ceasefire's continuation during this phase is not guaranteed, leaving room for potential resumption of military action.
 - **Phase 3: Gaza Reconstruction**
 - A large-scale reconstruction plan for Gaza will begin.
 - Any remains of deceased hostages will be returned to their families.

Challenges to Ceasefire Implementation

- **Hamas' Conditions**
 - Hamas insists on a complete Israeli military withdrawal and an end to the war before releasing remaining hostages.

Current Affairs - 15 January 2025

NATIONAL TURMERIC BOARD



- It will **provide leadership on turmeric related matters**, augment the efforts, and facilitate greater coordination with Spices Board and other Government agencies in development and growth of the turmeric sector.

Composition of Board:

- A **Chairperson** to be appointed by the Central Government.
- A **Secretary** to be appointed by the Department of Commerce.
- Members from the Ministry of AYUSH, Departments of Pharmaceuticals, Agriculture & Farmers Welfare, Commerce & Industry of the Union Government.
- Representatives from the top two turmeric growing states of **Maharashtra and Telangana** and from the state of Meghalaya. States will be represented on the **Board by rotation**.
- Select national/state institutions involved in research, representatives of turmeric farmers and exporters.

Mandate:

- The Board will focus on key areas such as **research and development, value addition to turmeric products**, and promoting awareness of the spice's medicinal and essential properties.
- **Headquarter:** Nizamabad, Telangana

Status of Turmeric in India:

- Turmeric is often referred to as the **“Golden Spice,”** holds immense economic potential for Indian farmers.
- **India is responsible for over 70% of the world's turmeric production**, with 30 varieties of turmeric being grown in the country.
- The **largest producing states** of Turmeric are Maharashtra, Telangana, Karnataka and Tamil Nadu.

The **leading export markets** for Indian Turmeric are Bangladesh, UAE, USA and Malaysia

Current Affairs - 15 January 2025

TELECOM TECHNOLOGY DEVELOPMENT FUND



Recently, the Centre for Development of Telematics (C-DOT) has signed an agreement with the Indian Institute of Technology Delhi (IIT Delhi) for the development of "Building Blocks for THz Communication Front Ends" for 6G under the Telecom Technology Development Fund (TTDF).

Telecom Technology Development Fund has been setup under **Universal Services Obligation Fund (USOF)** of Department of Telecom (DOT), Government of India.

○ USOF is now called **Digital Bharat Nidhi**.

- It aims to promote the ecosystem for **research, design, prototyping, proof of concept testing**, IPR creation, field testing, security, certification and manufacturing of products etc. in **telecommunication field**.

Aims:

- To fund **R&D in rural-specific communication technology** applications and form synergies among academia, start-ups, research institutes, and the industry to build and develop the telecom ecosystem.
- To **promote technology ownership** and indigenous manufacturing, create a culture of technology co-innovation, reduce imports, boost export opportunities and creation of Intellectual Property.
- The following Indian entities are **only eligible for support from this fund**:
- Domestic Company(ies) with focus on telecom R&D, Use case development
- Startups / MSMEs, Academic institutions
- R&D institutions, Section 8 companies / Societies, Central & State government entities / PSUs / Autonomous Bodies/SPVs / Limited liability partnerships- with a focus on telecom research and development.

Current Affairs - 15 January 2025

THE NATIONAL BUREAU OF FISH GENETIC RESOURCES (NBFGR)?



- It was established in December 1983 in Allahabad under the aegis of Indian Council of Agricultural Research (ICAR) to undertake research related to the conservation of fish germplasm resources of the country.
- The Bureau's permanent infrastructure was developed at Lucknow, Uttar Pradesh in 1999.
- The Institute's vision is assessment and conservation of fish genetic resources for intellectual property protection, sustainable utilization and posterity.
- They work to identify, document, and conserve the genetic diversity of fish species, which is important for maintaining healthy and sustainable fish populations.
- The Bureau has developed modern facilities, multidimensional strategies and technological capabilities to achieve its mandate related to database development, genotyping, registration of aquatic germplasm, gene banking and evaluation of endangered and exotic fish species.

What is Aquaculture?

- It is the propagation and husbandry of aquatic plants, animals, and other organisms for commercial, recreational, and scientific purposes.
- Aquaculture has been in existence since at least 500 BC. However, only since the mid-20th century has it assumed commercial importance.
- There are two main types of aquacultures—marine and freshwater.
- Aquaculture can happen all over the world: in coastal ocean waters, fresh water ponds and rivers, and even on land in tanks.
- It is one of the fastest-growing forms of food production in the world.

Current Affairs - 15 January 2025

- Globally, **aquaculture** already **supplies more than half of all seafood consumed by humans.**

Major Producers:

- China** is firmly at the top of the global aquaculture production, **producing nearly 60% of farmed seafood.**
- Other leaders include **Indonesia, India, and Vietnam.**

WHAT IS BHARGAVA STRA?



- It is **India's first indigenous micro-missile system** designed to take on the threat of swarm drones.
- It was developed by the **Economic Explosives Ltd.**
- It can quickly deploy on a **mobile platform** and **hit targets over 2.5 km.**
- It is capable of **detecting even small incoming flying machines at over 6 km** and can **take them down using micro munitions** that can be guided towards the threat.
- The system can **simultaneously fire more than 64 micro missiles.**
- It is designed to **operate in all terrains**, including high-altitude areas, to meet specific requirements of the armed forces.
- Designed to meet the requirements of the Army Air Defence, this is the **first counter-drone system that uses micro missiles.**

What are Swarm Drones?

- SWARM stands for "**Smart War-Fighting Array of Reconfigured Modules.**"
- Drone swarm technologies coordinate at least three and **up to thousands of drones to perform missions cooperatively** with **limited need for human attention and control.**
- For example, an aerial drone swarm could potentially assist with controlling a wildfire, assessing damages, finding access points, and suppressing the fire by raining firefighting liquids on it—all with minimal human direction.

Current Affairs - 15 January 2025

PURULIA OBSERVATORY



- It is located on the Panchet Hill, Purulia District, **West Bengal**.
- It is equipped with a **14-inch diameter telescope** for scientific observations.
- The observatory is at a height of 600 meters above ground level and at longitude of approximately 86° E.
- It will be a major observatory not only in eastern India, but also in the world.
- There are very few observatories along the 86° East longitude, which stretches from the Arctic Ocean to Antarctica. This new observatory will help fill this gap.
- It will help in scientific observations of **astronomical objects**, **training students** in handling telescopes and recording data.
- **Other Observatories in India:** ARIES Observatory, Nainital, (Uttarakhand), Vainu Bappu Observatory, Kavalur (Tamil Nadu) and Indian Astronomical Observatory (IAO), Hanle, Ladakh etc.

INDIA METEOROLOGICAL DEPARTMENT'S (IMD) 150TH ANNIVERSARY

Origin and Significance of the IMD:

- **The IMD was established in 1875**, following a series of catastrophic events (including a devastating tropical cyclone that struck Calcutta in 1864) that underscored the need for **centralized meteorological services**.



- It comes under the **Ministry of Earth Sciences**, Government of India.
- Since its inception, the department has played a crucial role in **advancing meteorology** as a modern physical science.

Current Affairs - 15 January 2025

Achievements and Acknowledgements of the IMD:

- **Make in India initiative**
 - IMD has been the front runner of the development of Indigenous technology, commencing with **indigenous RADAR in 1958, and Indian Satellite products** in collaboration with ISRO since 1983.
 - **Other initiatives:**
 - Automatic Weather Station since 2000,
 - Doppler Weather Radar since 2010,
 - Common Alerting Protocol since 2019,
 - Impact based Forecast since 2019,
 - Dynamic composite risk atlas since 2022, etc.
 - **Technological and strategic advancements:**
 - **Mission Mausam:** Launched to revolutionize weather surveillance through:
 - High-resolution atmospheric observations.
 - Next-generation radars and satellites.
 - High-performance computing systems.
 - **IMD's role in global and regional meteorology:**
 - Secretary General of the World Meteorological Organization (WMO), **acknowledged India's six-decade representation at the WMO**, the longest in the Asia-Pacific.
 - **WMO also highlighted India's critical role in supporting neighboring countries**, including Nepal, Bhutan, Bangladesh, and Sri Lanka, with weather forecasts.
 - **For example**, India's Flash Flood Guidance system provides vital data to neighboring nations.
 - **Improved forecasting accuracy:** IMD's forecast accuracy has improved by 50%, enabling better disaster preparedness.
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Current Affairs - 15 January 2025

BORDER FENCING ROW WITH BANGLADESH

India – Bangladesh Border (IBB)

- The India-Bangladesh border is India's longest border measuring 4096.7 km.
- It passes through **West Bengal** (2216.7 km), **Assam** (263 km), **Meghalaya** (443 km), **Tripura** (856 km) and **Mizoram** (318 km).
- The entire border consists of varied geographical features like plains, hills, riverine stretches, and forests with hardly any natural obstacles.
- The India-Bangladesh border is highly porous and a hotspot of illegal immigration, cattle smuggling, human trafficking and other illegal cross border activities.

Reasons for the Dispute

- **Violation of the 1975 Agreement**
 - Bangladesh opposes fencing within 150 yards of the international border, citing the 1975 India-Bangladesh guidelines.
 - They argue that even **single-row fencing (SRF)** breaches this agreement.
- **Impact on Border Residents**
 - Fencing causes inconvenience to residents living along the border, restricting their movement and activities.
- **Indian Perspective on SRF**
 - SRF is intended to control animal movement and curb trans-border crimes, not as a defence structure.
 - Unlike concrete walls, bunkers, or ditch cum bandh (DCB), SRF has no defence potential.
- **Objection to Smart Fencing**
 - Bangladesh objects to smart fencing, which includes CCTV and electronic surveillance, claiming it enables India to monitor their territory.