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## **Current Affairs - 22 October 2024**

### WHAT IS THE INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)?



The 2024 edition of the IAEA's Climate Change and Nuclear Power report has been released, highlighting the need for a significant increase in investment to achieve goals for expanding nuclear power.

- It is the world's foremost **intergovernmental forum for** scientific and technical **cooperation in the nuclear field**.
- It is widely known as the world's "Atoms for Peace and Development" organization within the United Nations family.
- It works for the safe, secure, and peaceful uses of nuclear science and technology.
   History: Though established as an autonomous organisation, independently of the United Nations through its own international treaty, the IAEA Statute, the IAEA reports to both the United Nations General Assembly and Security Council.
   Headquarters: Vienna, Austria.
- Currently, it has 178 member states.

#### **Structure**:

- o The **General Conference**, consisting of **all members**, meets annually to approve the budget and programs and to debate the IAEA's general policies.
- The Board of Governors, which consists of 35 members who meet about five times per year, is charged with carrying out the agency's statutory functions, approving safeguards agreements, and appointing the director general.
- The day-to-day affairs of the IAEA are run by the Secretariat, which is headed by the director general.

#### **Functions** of IAEA:

The Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.





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- It applies nuclear safeguards— consisting of monitoring, inspection, information analysis, and other activities to verify that nuclear activities remain peaceful and detect and deter their diversion, including to weapons-related purposes.
- o In particular, the IAEA implements comprehensive safeguards agreements mandated by the Nuclear Non-Proliferation Treaty (NPT), which serve as a first line of defense against nuclear weapons proliferation.
- IAEA enhances national, regional, and international capacities to respond to nuclear and radiological incidents, which is essential to minimizing their impact.

### DEALING WITH FAKE BOMB THREATS IN AVIATION

Over the past week, nearly 100 fake bomb threats, mostly from anonymous social media accounts, have raised significant concerns about aviation safety in India. Although all the threats turned out to be hoaxes, they caused widespread disruptions for airlines.

#### **Bomb Threat Response Protocol:**

- Mid-air bomb threat:
  - Outpoint of the threat during a flight, the Bomb Threat Assessment Committee (BTAC) convenes to evaluate the credibility of the threat.
  - o Pilots coordinate with Air Traffic Control (ATC) to determine whether to return to the departure airport, continue to the destination, or divert to the nearest airport.
- **Pre-departure bomb threat:** If the threat occurs before take-off, the aircraft is moved to a secluded bay for thorough checks in coordination with the BTAC.
- International flights: In cases where bomb threats target international flights outside Indian airspace, Indian agencies work with international ATC and security agencies to divert the flight to the nearest airport.





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### Response to Recent Spate of Fake Bomb Threats Targeting Indian Airlines:

- Swift response from airlines: Airlines immediately activated anti-terror protocols and contacted the MoCA for assistance. Despite strict security measures, each threat was treated with caution.
- **Inter-Ministerial coordination:** The MoCA, Ministry of Home Affairs (MHA), and agencies such as the Bureau of Civil Aviation Security (BCAS) are coordinating closely to address the spate of threats.

### • Enhanced security:

o In response to the threats, security has been tightened at airports with an increase in security checks by 10%. CCTV coverage has also been expanded to ensure that no suspicious items are carried on board.

### • Deterrence and investigation efforts:

 While ensuring passenger safety, the committees aim to minimise disruptions by refining the assessment process.

#### • Tracking culprits:

- The government is actively working to trace those responsible for the fake threats, but the use of VPNs and anonymous social media accounts has made tracking difficult.
- Efforts are underway to collaborate with social media platforms and VPN providers to identify the perpetrators.
- **Legislative changes:** The Indian government is planning legislative changes to deal with fake bomb threats targeting airlines, aiming to impose harsher punishments and strengthen deterrence.

### **Legislative Action to Curb Fake Bomb Threats:**

• Current arrangement: Currently, such hoax bomb threats are dealt with in accordance with the country's criminal laws, as there are no legal provisions dealing specifically with bomb threats to aircraft.





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## • Amendments to Aircraft Security Rules:

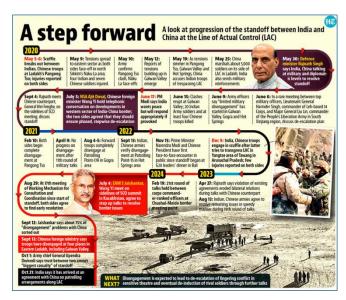
- The government plans to modify the Aircraft Security Rules (governed by the Aircraft Act 1934) to include culprits of hoax bomb threats in the no-fly list, effectively banning them from boarding flights.
- This is currently limited to unruly passengers on board but would be expanded to those sending threats via social media or other external means.

### • Changes to SUASCA Act, 1982:

- Amendments to the Suppression of Unlawful Acts against Safety of Civil Aviation (SUASCA) Act are proposed.
- Currently, the Act applies to in-flight incidents, but the government seeks to broaden its scope to cover bomb threats even when the aircraft is grounded, making such offences cognizable under the law.
- o This would also include heavy fines and possible jail time.

### INDIA AND CHINA ARRIVED AT A PATROLLING AGREEMENT ALONG THE LAC

In a major diplomatic breakthrough, India and China have agreed to resume patrolling at key friction points along the Line of Actual Control (LAC) in eastern Ladakh. This agreement



follows years of military standoffs since the 2020 Galwan Valley clash, which had left both nations in a deadlock.

#### Galwan attack and situation thereafter

#### Galwan Clash

 In May 2020, Indian and Chinese troops clashed at various points along the Line of Actual Control (LAC).

These points included: Pangong Tso, Galwan Nalah and





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Demchok in Ladakh and at Naku La (a mountain pass at an altitude of over 5000 metres) in Sikkim.

- Later, a violent clash at Galwan Valley started between Indian troops and soldiers
   of the People's Liberation Army (PLA) on the night of June 15, 2020.
- After this incident, both sides deployed a large number of troops in the area along with heavy weaponry.

### • Friction points

- There are seven friction points in eastern Ladakh where Indian and Chinese troops have had confrontations since May 2020.
- These include PP 14 (Galwan), PP 15 (Hot Springs), PP 17A (Gogra), north and south banks of Pangong Tso, Depsang Plains (the Chinese had cut off Indian access to the PPs there) and Charding Nullah.

### Key highlights of the recent patrolling agreement along the LAC



## • Restoration of Patrolling Rights in Depsang Plains and Demchok

- o India and China have agreed to restore patrolling rights in the Depsang Plains and Demchok regions of eastern Ladakh, addressing long-standing "legacy issues" that predate the 2020 Chinese incursions.
- Indian troops will now be able to patrol up to Patrolling Points (PP) 10 to 13 in
   Depsang and Charding Nullah in Demchok.

## • Agreement on Patrolling Protocols

- Both sides will patrol up to the old points along the Line of Actual Control (LAC), with Indian patrols occurring twice a month.
- o The strength of each patrol will consist of 14-15 troops to avoid clashes.
- Patrol programmes will be coordinated, with any clashing dates being mutually modified to prevent misunderstandings.





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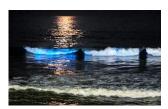
#### • Eastern Theatre and Other Friction Points

- While agreements have been reached on Depsang and Demchok, friction points like Galwan Valley and Pangong Tso remain unchanged.
- Discussions regarding the eastern sectors, particularly sensitive areas in Arunachal Pradesh, are still ongoing.

### • Confidence-Building Measures

- The pact aims to restore trust between the two countries through monthly commander-level meetings and case-specific talks.
- Both sides aim to reduce the overall deployment of troops along the LAC, a process already planned for winter.

#### **BIOLUMINESCENCE**



Recently, Chennai recently experienced a captivating natural spectacle as bioluminescent waves illuminated its coastline, drawing the attention of both residents and tourists.

- It is a natural phenomenon produced by certain **marine organisms**, primarily microscopic **plankton called dinoflagellates**.
- These planktons emit light on the ocean surface at night.
- Bioluminescence is widespread among deep sea animals in general.
- Many marine creatures like sponges, jellyfish, worms, species of fish, arthropods, echinoderms and unicellular alga exhibit bioluminescence to either evade predators, attract prey or during mating.
- This occurs when the **luciferase enzyme reacts with luciferin** compound in the presence of oxygen to produce a cold light.
- This is widespread in lagoons and sometimes breakwaters and is particularly visible during warm weather conditions.





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- The dinoflagellates follow a circadian cycle (24-hour cycle) and as a result this phenomenon occurs during the night which is visible in low light conditions.
- This unique phenomenon has been visible in some other beaches in India including Havelock Island in the Andamans, Thiruvanmiyur beach in Chennai, Mattu beach in Karnataka and Bangaram Island in Lakshadweep.

### WHAT IS THE NATURE RESTORATION LAW (NRL)?



- It is a **European Union (EU)** law to tackle the triple crises of **climate change**, **biodiversity loss**, and **environmental degradation**.
  - It is the first continent-wide, comprehensive law of its kind.
- It is a key element of the EU Biodiversity Strategy, which sets binding targets to restore degraded ecosystems, in particular those with the most potential to capture and store carbon and to prevent and reduce the impact of natural disasters.
  - Under the NRL, Member States will have to restore at least 20% of the EU's land and sea by 2030, including terrestrial, coastal, and freshwater, forest, agricultural, and urban areas.
  - By 2050, the measures should extend to all ecosystems "requiring restoration".
  - The EU NRL also targets an obligation to improve urban green spaces, contribute to free-flowing rivers by removing artificial barriers, increase pollinator populations, and contribute to the target of 3 billion additional trees throughout the EU.
  - Member States must adopt "restoration plans" detailing how they intend to achieve these targets and ensure that the restored areas do not significantly deteriorate.
  - While drafting these Nature Restoration Plans, Member States also need to consider socio-economic impacts and benefits and estimate the financial needs for its implementation.





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### **eSHRAM - ONE STOP SOLUTION**



- It will provide seamless access of different **Social Security Schemes** to the **unorganised workers** registered on **eShram portal.**
- **Purpose:** The primary purpose of the eShram One Stop Solution is **to simplify the registration process for unorganised workers** and facilitate their access to government welfare schemes.
- This platform will act as a bridge, connecting the workers to the numerous benefits
  offered by the government and making the registration process easier and more
  transparent,"
- It entails consolidating and integrating data from various Central Ministries/Departments into a single repository.
- Key welfare schemes such as One Nation One Ration Card, Mahatma Gandhi National Rural Employment Guarantee Act, National Social Assistance Programme, National Career Service, Pradhan Mantri Shram Yogi Maandhan etc. have been integrated with eShram.

#### What is eShram Portal?

- It was launched by the Ministry of Labour and Employment in 2021 for registration and creation of a comprehensive National Database of Unorganized Workers.
- The registration in the portal is fully Aadhaar verified and Aadhaar seeded. Any unorganised worker can register himself or herself on the portal on a selfdeclaration basis.
- o It allows an unorganised worker to register himself or herself on the portal on self-declaration basis, under 400 occupations in 30 broad occupation sectors.





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#### **MALARIA**



Recently, Egypt was officially declared 'malaria-free' by the World Health Organization (WHO).

- It is an **acute febrile illness** caused by **Plasmodium parasites**, which are spread to people through the bites of **infected female Anopheles mosquitoes.**
- It is a life-threatening disease primarily **found in tropical countries.**

#### • Transmission

- It is **not contagious** and cannot spread from one person to another; the disease is transmitted through the bites of female Anopheles mosquitoes.
- Five species of parasites can cause malaria in humans and 2 of these species –
   Plasmodium falciparum and Plasmodium vivax pose the greatest threat.

### • Symptoms

- The first symptoms of malaria usually begin within 10–15 days after the bite from an infected mosquito.
- Fever, headache and chills are typically experienced, though these symptoms may be mild and difficult to recognize as malaria.
- o In malaria endemic areas, people who have developed partial immunity may become infected but experience no symptoms.

#### • Prevention:

 Vector control interventions: Vector control is the main approach to prevent malaria and reduce transmission.

#### • Treatment:

- o It is preventable and curable.
- Early diagnosis and treatment of malaria reduces disease and prevents deaths, and also contributes to reducing transmission.