

**DAILY
CURRENT
AFFAIRS
ANALYSIS**



LEARNERS ACADEMY®

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1 – Fibre Optics:

GS III

Science and Technology related issues:

- Optical fibres are constructed of thin strands of glass that are used to transfer digital information over great distances at almost the speed of light. This information can take the shape of text, images, voices, and movies.
- The origins of fibre optic communication can be found in the work of physicist Charles Kao, who more than 60 years ago suggested glass fibres as an improved communication medium.
- **Principle of operation for optical fibres:**
- Light is guided through the glass strands by total internal reflection, which enables signals to travel over long distances with little loss of optical power.
- An overview is given of the historical development of fibre optic cables, from the earliest light directing experiments in the 19th century to the innovations in the mid-20th century that paved the way for the creation of long-distance transmission.
- It highlights the current status of fibre optic technology and how important optical fibres are to sensing, medical science, laser technology, and telecommunication.
- *Source → The Hindu*

2 – Axolotl:

GS III

Environmental Conservation:

- **About Axolotl:**
- **What is it?**
- One species of salamander is the axolotl. From the Latin words "atl" (water) and "xolotl" (monster), the name "axolotl" is derived.
- Frogs and toads belong to the class of amphibians known as salamanders.
- **Located in:**
- Lake Xochimilco in Mexico City.
- **Qualities:**
- They can regenerate hearts, spinal cords, lost or injured limbs, and even portions of their brains without suffering long-term damage. They live their entire lives underwater.
- **Importance:**
- Because of their unusual slimy look and capacity for limb regeneration, axolotls are revered as cultural icons in Mexico.
- Researchers think that axolotls' ability to renew could one day reveal the key to tissue healing and perhaps the treatment of cancer.
- **Hazards:**

- In less than 20 years, the Mexican axolotl population has significantly decreased by more than 99%. The main causes include wastewater dumping, habitat loss, droughts, the expansion of the skin-eating illness Chytrid fungus, and the effects of climate change.
- *Source* → *The Hindu*

3 - North East Insurgency: UNLF and the Centre inked a peace agreement:

GS III

Internal Security:

- **About UNLF:**
- On November 24, 1964, it was established with the intention of breaking away from India. It was first led by Arembam Samarendra Singh and currently consists of two factions, the military wing of which is called the Manipur People's Army. The UNLF, which has received training from the Naga rebel group NSCN (IM), has been active in the valley regions of Manipur and several Kuki-Zomi hill districts. Being banned by the Unlawful Activities Prevention Act, it has had difficulties while conducting business in Myanmar's territories.
- The Mizo National Front (MNF) became a mainstream political party in 1986. The Mizoram Accord of 1986 signalled the end of the state's conflict.
- Inter-State Boundary Agreement between Assam and Meghalaya (2022):
- Six sectors are the focus of the agreement's dispute resolution. Assam is given roughly 181 sq. Meghalaya receives roughly 18 sq. km. kilometres of the territories under issue.
- **Agreement on Karbi Anglong (2021):**
- a three-way deal between the state government, the Centre, and five militant factions in Assam. Over 1,000 armed cadres from five militant organizations—KLNLF, PDCK, UPLA, KPLT, and KLF—left the group and integrated into society.
- **2020's Bodo Accord:**

- The Bodoland Territorial Area District (BTAD) in Assam is redrawn and renamed the Bodoland Territorial Region (BTR) after it was signed by the Assam government, the central government, and Bodo groups (including NDFB factions).
- **Bru-Reang Agreement 2020:**
 - a four-party agreement between the governments of the Centre, Mizoram, Tripura, and the leaders of the Bru people. intends to relocate members of the Northeast Indian Bru community to Tripura, with settlement costs to be paid for by the Home Ministry.
- **NLFT-Tripura Agreement 2019:**
 - After reaching a deal, the NLFT, which has been outlawed since 1997, turned over 88 cadres and 44 firearms. Operating from camps on the other side of the international boundary was the National Liberation Front of Tripura.
- **The Armed Forces Special Powers Act (AFSPA) is being repealed:**
 - A large portion of the Northeast was hit by the government's withdrawal of AFSPA, including all of Tripura and Meghalaya. Just three districts in Arunachal Pradesh continue to enforce the AFSPA.
- **North-East insurgencies' current state:**
 - In North East India, since 2014, there has been an 80% decrease in civilian deaths and 6,000 terrorist surrenders, according to a study released by the Union Government last year.
- **Northeast India's Insurgency-Producing Factors:**
 - **Multiple ethnicities:**
 - With a population of about 40 million, Northeast India (NEI) is extremely ethnically diverse and home to 213 of the 635 tribal groups recognised by the Anthropological Survey of India.
 - Insurgencies are fueled by government attempts at integration that lack a grasp of tribal differences. Ethnic insurgencies are made worse by rivalry between tribes.

- **Past:**

- Numerous insurgent groups demanding autonomy, identity preservation, and socioeconomic growth have emerged in the region as a result of the country's complex history of colonisation, boundary conflicts following independence, and socioeconomic hardships.
- For instance, Phizo led the Naga National Council (NNC), which on August 14, 1947, proclaimed its independence from India.

- **Insufficient Economic Development:**

- Limited employment prospects are the outcome of NEI's lagging development. Economic woes are exploited by insurgent groups, drawing disillusioned young.

- **Feelings of Exclusion, Deprivation, and Abuse:**

- Disillusionment is bred by the distance from New Delhi geographically and the low representation of the Lok Sabha. Discontent is fueled by a diminished voice in the halls of power, which makes violent revolt appealing.

- **Changes in Demographics:**

- The flood of refugees from what was once East Pakistan (now Bangladesh) has changed the demographics of the area.

- **Internal Movement:**

- Stability is heightened by ongoing internal displacement, especially as a result of interethnic violence.

- **Outside Assistance:**

- Concerns are raised by China and Pakistan's stealthy offensive in the area. The Special Services Group (SSG) of Pakistan has a history of aiding the Naga rebels.
- Chinese involvement in NEI began in 1967 when NNC leaders asked for Chinese assistance. Rebel commanders were emboldened by the success of the Chinese people's revolution, which fueled the uprising.

- **The Indian Army's perceived excesses (AFSPA):**

- Locals find the Armed Forces Special Powers Act (AFSPA) oppressive and unpopular. Despite being vital to counterinsurgency, AFSPA is vilified in the perspective of insurgent groups due to criticism from human rights organisations.

- **Funding Sources:**

- financing obtained via transporting drugs, weapons, and extortion. Being close to the Golden Triangle encourages the illegal drug trade and gives separatist groups encouragement.

- **Institutional Responses to Northeastern India's Insurgency:**

- **Agreements on Ceasefire:**

- ongoing cease-fire agreements with different state-based militant organisations. The original contract with N.S.C.N.-I.M. begins on July 25, 1997.

- **Talks of Peace:**

- For instance, the 2015 peace agreement with the NSCN to put a stop to the conflict in Nagaland.

- **Military Actions:**

- actions by security forces, such as the state police, army, and paramilitary groups, to keep militancy in check. military actions against U.L.F.A. insurgents, like as airstrikes in Mizoram and operations like Rhino and Bajrang.

- Assam, Nagaland, Manipur, and certain regions of Arunachal Pradesh have AFSPAs.

- **Building Up Micro-Democratic Organisations:**

- empowerment of local government units such as village councils, gramme panchayats, and autonomous development councils. improved validity and functionality, including a variety of communities in the development process.

- **Developmental Measures:** Putting initiatives like Hill Area Development and Border Area Development into action.

- Northeastern states have special category status, and the Bharatmala Pariyojana provides developmental support for infrastructure projects.

- The Kaladan Multi-Modal Transit Project, the Regional Connectivity Scheme (RCS)-UDAN, and the India-Myanmar-Thailand Trilateral Highway Digital North East Vision 2022 National Bamboo Mission.
- **Way Forward:**
- The Government of India has made several attempts to find a long-term solution, but the NEI insurgencies have persisted for the past 70 years. But now that the elder generation is ageing out and the younger generation is not as interested in insurgencies, it is time to develop a long-term plan for ending residual insurgencies.
- *Source → The Hindu*

4 - Decentralised Autonomous Organizations:

GS II

Statutory and Non-Statutory Bodies:

- **About:**
- Decentralised Autonomous Organisations are blockchain-based digital entities. They are run by member consensus and smart contracts rather than a central authority.
- **Goal:**
- The goal is to build autonomous, community-driven organisations on blockchain networks that are managed by smart contracts.
- **For instance:**
- A DAO in decentralised finance (DeFi), such as MakerDAO, is one instance. Without depending on conventional banks, MakerDAO users with tokens can vote and suggest improvements to the protocol, impacting lending and borrowing decisions.

- **Use Cases:**

- Global Financial Ecosystem (lending and borrowing are made possible by platforms like Compound and Maker DAO); Art (creations by artists are tokenized); Supply Chain Management (DAOs provide transparency and traceability in international supply chains); and Governance (DAO stack, for example, enables decentralised governance for online communities).

- **Importance:**

- 1. Democratic governance and decentralisation: These policies promote democratic decision-making by transferring authority away from central authorities.
- 2. Trust and openness: By guaranteeing openness, smart contracts lessen the opacity that comes with centralised organisations. Nonetheless, security threats may arise from smart contract weaknesses.
- 3. Collaboration on a global scale and inclusivity: Promotes diversity and creativity while facilitating global participation.
- DAOs are designed to challenge established company structures by establishing democratic, self-executing, transparent systems.

- **Problems:**

- Security flaws (such as the 2016 DAO hack); difficulties with liability assignment, taxation, and legal classification; difficult dispute settlement due to decentralised decision-making.

- **Source** → *The Hindu*