

## DAILY CURRENT AFFAIRS (DCA)

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## PAKISTAN SHUTS AIRSPACE, SNAPS TRADE RELATIONS WITH INDIA

### Context

- The Pahalgam terror attack has escalated tensions between India and Pakistan, leading to a series of retaliatory measures by both countries.

### Key Measures By India & Pakistan

#### India's Measures

- Suspension of the Indus Waters Treaty
- Closure of the **Attari-Wagah Border**
- Cancellation of **SAARC Visa Exemption Scheme (SVES Visas)**
- Expulsion of Pakistani Military Advisors
- Reduction of Diplomatic Personnel

#### Pakistan's Retaliatory Measures

- Airspace Closure
- Trade Suspension
- Diplomatic Retaliation like reducing the strength of India's High Commission and **suspension of Simla Agreement** and all bilateral agreements with India.
- Visa Restrictions except for Sikh pilgrims visiting the **Kartarpur Corridor**.
- Labeling the suspension of the Indus Waters Treaty as an 'act of war'.

### Pakistan's Airspace Closure for India

Since Oct 7, 2023 | Iran-Israel conflict has often impacted Iran, Iraq & Jordan airspace

Since Feb 2022 | Russia no fly zone for western airlines

Since Aug 2021 | Afghanistan airspace closed for civilian flights

Feb 27-July 16, 2019 | Pakistan airspace closed after Balakot airstrike



- Airspace** refers to the portion of the atmosphere controlled by a country, where it regulates the movement of aircraft.
- Its closure is governed by both domestic regulations and international frameworks.

### Domestic Regulations

- Each country has exclusive rights over the airspace above its territory, as defined by its civil aviation authority.
- In India, the **Directorate General of Civil Aviation (DGCA)** oversees airspace management and closures during emergencies.

- Domestic laws allow governments to issue **Notice to Airmen (NOTAMs)** to inform airlines of restrictions.

### International Regulations

- Chicago Convention (1944):** It establishes rules for airspace sovereignty and international flight operations, under the **International Civil Aviation Organization (ICAO)**.
  - Article 1** recognizes the **complete and exclusive sovereignty of nations** over their airspace.

### Impacts of Airspace Closure

- Flight Rerouting and Increased Costs:** Indian carriers have been forced to reroute flights to Europe, North America, and the Middle East.
  - Longer flight paths over the Arabian Sea and Central Asia are increasing fuel consumption and operational costs.
  - Ticket prices for international flights may rise by 8–12%, affecting passengers.
- Economic Implications:** The move **mirrors Pakistan's 2019 airspace closure**, following the **Indian Air Force's air strikes in Balakot** in retaliation for the Pulwama terror attack, which lasted five months and cost Indian airlines over ₹700 crore.

### Simla agreement

- The Simla Agreement was a bilateral treaty between India and Pakistan, signed by former prime minister Indira Gandhi and then Pakistani president Zulfikar Ali Bhutto on July 2, 1972.
- It was aimed to **resolve conflicts and foster peaceful relations** after the 1971 India-Pakistan war.
  - The war was triggered when India intervened in East Pakistan's (now Bangladesh) fight for independence.

### Major Provisions

- Both countries pledged to **resolve all disputes**, including the Kashmir issue, bilaterally without third-party involvement, marking a shift from previous international mediation.
- They agreed to **respect each other's territorial integrity**, political independence, and non-interference in internal affairs.
- The 1971 ceasefire line in Jammu and Kashmir was **re-designated as the Line of Control (LoC)**, with both sides committing not to alter it unilaterally.
- The agreement called for the restoration of diplomatic, economic, and cultural relations, including the resumption of communication, travel, and trade links.

- India agreed to release over **93,000 Pakistani prisoners of war** as part of the agreement, one of the largest releases in history.
- India returned over **13,000 km<sup>2</sup>** of territory seized during the war, but retained strategic areas in the Chhorbat Valley.

Source: TH

## COMBATING ANTIMICROBIAL RESISTANCE (AMR) IN INDIA

### In News

- Experts have raised concerns about the **overuse of the potent antibiotic ceftazidime-avibactam**, leading to reduced efficacy and **increased drug resistance**.
  - ♦ The Drugs Controller General of India (DCGI) was urged to establish strict regulations to prevent misuse.

### Antimicrobial resistance (AMR)

- Antimicrobials (including antibiotics, antivirals, antifungals, and antiparasitics) are used to treat infections in humans, animals, and plants.
- Antimicrobial Resistance (AMR) occurs when pathogens no longer respond to these medicines, making infections harder to treat and increasing the risk of disease spread, illness, disability, and death.
- AMR is a natural process but is accelerated by the misuse and overuse of antimicrobials in humans, animals, and plants.

### Concerns

- India has one of the highest burdens of **bacterial infections in the world**.
- Antimicrobial resistance (AMR) is a growing **public health crisis** that threatens the effectiveness of antibiotics, leading to **longer hospital stays, intensive care, and higher mortality rates**.
- It is a complex issue influenced by factors such as **overuse of antibiotics in humans, animals, and agriculture**, along with inadequate infection control and sanitation.
- Socio-economic factors like **poverty and lack of clean water further exacerbate the problem**.

### Efforts Made by India

- India is actively addressing antimicrobial resistance (AMR) through expanded **genomic surveillance** and collaboration between key government bodies like Indian Council of Medical Research (ICMR), the National Centre for Disease Control (NCDC) and the Indian Council of Agricultural Research (ICAR).

- Recent breakthroughs, such as **novel antibiotics** like cefepime-enmetazobactam, cefepime-zidebactam, nafithromycin, and levodifloxacin, offer new treatment options for **multidrug-resistant pathogens**.
  - ♦ These developments help reduce reliance on last-resort antibiotics like carbapenems and colistin.
- The **Red Line Campaign** was launched to create a public awareness drive to label prescription-only antibiotics with a red line.
- ICMR promotes **Antibiotic Stewardship Programs (ASPs) in hospitals**.

### Conclusion and Way Forward

- India is leveraging its strong biotech ecosystem, high burden of infectious diseases, and capacity for affordable manufacturing to address the urgent need for new antibiotics to **combat antimicrobial resistance (AMR)**.
  - ♦ By combining these strengths, India can accelerate its AMR fight and improve global access, especially for low- and middle-income countries.
- India's success in this fight will depend on harnessing innovation across healthcare, governance, and society.
  - ♦ By implementing the right policies, infrastructure, and supporting entrepreneurs, India can lead the global effort against AMR, setting an example for the world in tackling this critical public health threat.
- The use of antibiotics in food and animal production should be optimized, and there should be more careful consideration in using antimicrobial treatments.

Source: TH

## INDIA'S RECORD CARGO MOVEMENT ON INLAND WATERWAYS

### Context

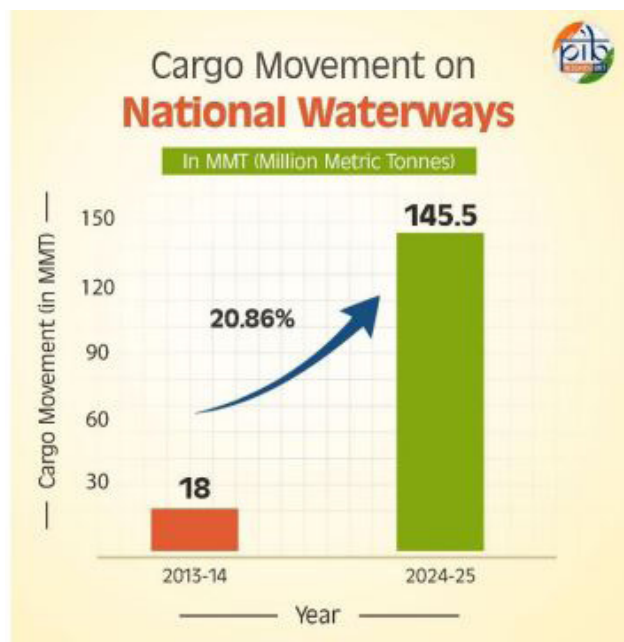
- India has achieved a record of **over 145 million tonnes of cargo movement on inland waterways in 2024-25**.

### About

- The number of National Waterways increased from **5 to 111**, with the **operational length growing from 2,716 km (2014–15) to 4,894 km (2023–24)**.
  - ♦ Massive infrastructure development includes Multi-Modal Terminals (MMTs), Inter-Modal Terminals (IMTs), community jetties, floating



terminals, and green tech like Hybrid Electric and Hydrogen Vessels.



- **Future Prospects:** India aims to increase IWT modal share from 2% to 5%, and raise traffic to 200+ MMT by 2030 and 500+ MMT by 2047 under Maritime Amrit Kaal Vision.

#### Inland Waterways

- Inland waterways refer to **navigable rivers, canals, backwaters, and creeks** used for **transportation of goods and passengers within a country**.
- India has ~14,500 km of navigable waterways, but their usage is limited. 111 waterways have been declared National Waterways (NWs) under the National Waterways Act, 2016.
- **Importance of Inland Waterways**
- **Economic Benefits:** Lower transportation costs compared to road and rail.
- **Fuel Efficiency:** Uses 30% less fuel than road transport and 50% less than rail.
- **Environmental Sustainability:** Reduces carbon emissions and congestion on roads.
- **Connectivity:** Supports hinterland trade and rural economies.
- **Tourism & Passenger Transport:** Plays a role in ferry services and river cruises.

#### Criteria for Declaring a National Waterway

- **The Inland Waterways Authority of India (IWAI)** declares the National Waterway.
- **National Transport Policy Committee (1980)** recommended the following criteria for **National Waterway**:

- ♦ Navigable by mechanically propelled vessels of reasonable size.
- ♦ Channel width of ~45 m and depth of ~1.5 m.
- ♦ Continuous stretch of at least 50 km.
- ♦ Should serve multiple states, or connect major ports/hinterlands, or be strategically important, or serve underserved areas.

#### Inland Waterways Authority of India (IWAI)

- Based on recommendations of the National Transport Policy Committee (1980), Inland Waterways Authority of India (IWAI) was established in **1986** under the IWAI Act, 1985.
- **Ministry:** Union Ministry of Ports, Shipping and Waterways.
- **IWAI Functions:**
  - ♦ Develop and maintain infrastructure on National Waterways (NWs).
  - ♦ Conduct feasibility studies.
  - ♦ Recommend declaration of new NWs.
  - ♦ Advise Central Government and assist State Governments.

#### Challenges in Inland Waterway Development

- Seasonal water level variations affect navigation.
- Lack of infrastructure (terminals, dredging, and navigation aids).
- Slow adoption by industries due to underdeveloped routes.
- Competition from road and rail transport.

#### Policy Measures to Boost Inland Waterways

- **Jalvahak – Cargo Promotion Scheme:** It was launched in 2024 and has two key components:
  - ♦ **Financial Incentive:** Cargo owners get a 35% reimbursement on actual operating costs for shifting cargo from road/rail to IWT, encouraging use of waterways.
  - ♦ **Scheduled Services:** Regular cargo services have been introduced to boost reliability and predictability.
- **Extension of Tonnage Tax to Inland Vessels:** It was announced in 2025 during the budget, the tonnage tax regime has been extended to inland vessels registered under the Indian Vessels Act, 2021.
  - ♦ **Benefit:** Provides a stable and predictable tax regime based on vessel tonnage rather than profits, thereby lowering the tax burden and encouraging broader adoption of inland shipping.

- **Regulatory Framework for Private Investment:** The National Waterways (Construction of Jetties/Terminals) Regulations, 2025 have been notified, enabling private investment in inland waterways infrastructure.
- **Port Integration:** To ensure seamless multimodal logistics, the Multi-Modal Terminals at Varanasi, Sahibganj, and Haldia, as well as the Intermodal Terminal at Kalughat, are being transferred to Shyama Prasad Mookerjee Port, Kolkata for operation and management.
  - ♦ This integration is expected to streamline cargo movement between ports and inland waterways.
- **Digitisation and Centralised Database:** A centralised portal is being developed for the registration of inland vessels and crew, similar to the 'Vahan' and 'Sarathi' systems used for road transport. This initiative will:
  - ♦ Simplify registration processes.
  - ♦ Provide real-time data on vessel and crew availability.
  - ♦ Enhance transparency and planning in the sector.
- **Cargo Aggregation Infrastructure:** To resolve issues related to sparse industrial presence along waterways, cargo aggregation hubs are under development:
  - ♦ Freight Village at Varanasi.
  - ♦ Integrated Cluster-cum-Logistics Park at Sahibganj.
- **Engagement with Public Sector Undertakings (PSUs):** More than 140 PSUs have been engaged to explore shifting a portion of their cargo to IWT.

#### Way Ahead

- The Indian government is investing heavily in inland waterways through projects like Jal Marg Vikas (JMVP).
- Public-private partnerships (PPPs) are being encouraged.
- Integration of IWT with multimodal logistics hubs for seamless transport is being carried out.

Source: AIR

## INDIA ACHIEVES BREAKTHROUGH IN GENE THERAPY FOR HAEMOPHILIA

#### Context

- India's first human gene therapy trial for haemophilia was conducted through a collaboration between Biotechnology Research

and Innovation Council's Institute for Stem Cell Science and Regenerative Medicine (BRIC-inStem) and CMC Vellore.

#### What is Hemophilia?

- It is a rare genetic disorder that impairs the body's ability to control blood clotting or coagulation.
- This can lead to spontaneous bleeding as well as bleeding following injuries or surgery.
- Hemophilia is **caused by a mutation or change, in one of the genes**, that provides instructions for making the clotting factor proteins needed to form a blood clot.
  - ♦ These **genes are located on the X chromosome**. Males have one X and one Y chromosome (XY) and females have two X chromosomes (XX).
- Hemophilia can result in:
  - ♦ Bleeding within joints that can lead to chronic joint disease and pain.
  - ♦ Bleeding in the head and sometimes in the brain which can cause long term problems, such as seizures and paralysis.
  - ♦ Death can occur if the bleeding cannot be stopped or if it occurs in a vital organ such as the brain.
- The following two are the most common:
  - ♦ **Hemophilia A (Classic Hemophilia):** This type is caused by a lack or decrease of clotting factor VIII.
  - ♦ **Hemophilia B (Christmas Disease):** This type is caused by a lack or decrease of clotting factor IX.
- **Treatment:** There are 2 main approaches to treatment:
  - ♦ **Preventative treatment**, where medicine is used to prevent bleeding and subsequent joint and muscle damage,
  - ♦ **On-demand treatment**, where medicine is used to treat prolonged bleeding.

#### Gene Therapy to cure Hemophilia

- Indian scientists conducted the gene therapy trial for **severe hemophilia A**.
- The participants received autologous **hematopoietic stem cells (HSCs)**, which were genetically modified using lentiviral vectors.
- These modified HSCs are capable of giving rise to blood cells that produce functional Factor VIII protein over a substantial period of time.
  - ♦ This approach reduces or eliminates the need for repeated **Factor VIII infusions**.

### Gene Therapy

- It is a technique that uses genes to treat, prevent, or cure diseases by:
  - Replacing faulty genes,
  - Deactivating harmful genes,
  - Introducing new genes to restore health.
- Methods of Gene Therapy:**
  - Somatic Cell Gene Therapy** involves the insertion of therapeutic genes into non-reproductive (somatic) cells. The changes are not heritable and are limited to the individual receiving the treatment.
  - Germline Gene Therapy** targets reproductive cells such as sperm or eggs, leading to heritable genetic changes. However, due to ethical and safety concerns, this type of therapy is currently banned in most countries, including India.

Source: PIB

## HYDROGEN BOMB A GAME-CHANGER FOR MODERN WARFARE

### Context

- Chinese researchers have tested a new hydrogen bomb that uses **magnesium hydride** to create a sustained fireball without nuclear materials.

### What is a Hydrogen Bomb?

- A hydrogen bomb or thermonuclear bomb traditionally involves a **two-stage** detonation process:
  - Primary (Fission) Trigger:** Utilizes fissile material such as uranium-235 or plutonium-239 to create immense heat and pressure.
  - Secondary (Fusion) Stage:** The extreme conditions cause isotopes of hydrogen (deuterium and tritium) to undergo fusion, releasing energy many times greater than a simple fission bomb.

### What is a Fissile-Free Hydrogen Bomb?

- China's hydrogen bomb innovation replaces the traditional fission-based trigger with advanced ignition systems such as;

- Inertial Confinement Fusion (ICF)** using high-powered lasers, or
- Magnetic Compression** through devices like Z-pinch plasma systems.
- These systems compress and heat a pellet of hydrogen isotopes (like deuterium and tritium) to initiate fusion, without the use of uranium or plutonium.

### What are the Concerns?

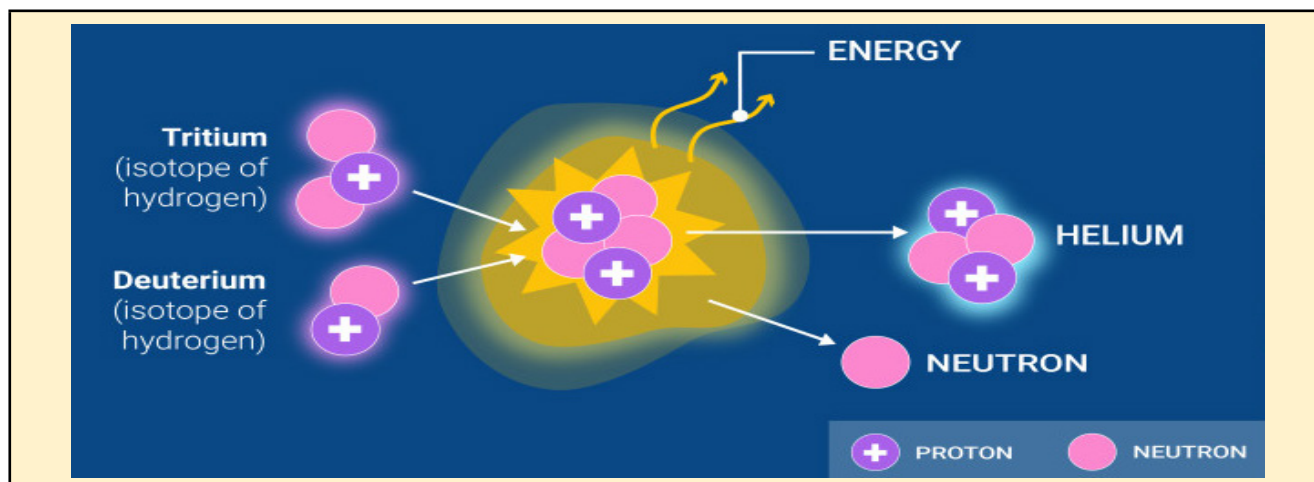
- Legal Loophole:** Under the Nuclear Non-Proliferation Treaty (NPT) and Comprehensive Test Ban Treaty (CTBT), nuclear weapons are primarily defined by the use of fissile materials.
  - Fissile-free fusion devices will circumvent these treaties, challenging the current global nuclear arms control framework.
- Ease of Development:** Fusion fuels (e.g., deuterium, tritium) are not as tightly regulated as fissile materials.
  - Fusion technologies are embedded within civilian research and energy programs, making dual-use harder to track.
- Proliferation Risk:** Rogue states and terror groups could exploit this new pathway to thermonuclear weapons.
- Asymmetric Warfare Implications:** Compact, high-yield, and non-radioactive bombs could be used;
  - In covert operations
  - As tools of gray-zone warfare
  - Smuggled easily across borders
  - Disguised as industrial accidents

### Way Ahead

- Redefining International Law:** Update CTBT to include non-fissile thermonuclear tests. There is a need to rethink definitions of nuclear weapons by energy yield, not just fissile content.
- Verification Mechanisms:** Create a **Fusion Weapons Verification Body (FWVB)** under the IAEA, modelled after the Organisation for the Prohibition of Chemical Weapons (OPCW).
- India,** with **credible minimum deterrence** doctrine, now faces strategic uncertainty. Hence it should invest in technologies to detect non-radiological fusion detonations.

### Nuclear fusion

- It is a process in which **two light atomic nuclei combine to form a heavier nucleus**, releasing a significant amount of energy in the process.
  - This process is the same as what powers stars, including our sun.
- The most common fusion reaction involves the isotopes of hydrogen: **deuterium and tritium**.
- When these isotopes fuse, they form helium and release a neutron, along with a large amount of energy.



Source: ET

## A NEW METHOD TO ESTIMATE HELIUM ABUNDANCE IN THE SUN

### Context

- A recent study by the Indian Institute of Astrophysics (IIA) has accurately estimated the abundance of helium in the Sun's photosphere.

### Background

- Helium is the second most abundant element** in the Sun after hydrogen, playing a vital role in its structure and energy dynamics.
- To accurately measure its abundance in the **Sun's photosphere** has been a long-standing challenge due to the lack of helium spectral lines in the visible range.
- Traditional methods** relied on indirect data from hotter stars, the solar corona and wind, and helioseismology (study of the Sun's internal oscillations).

### The new methodology

- Researchers analyzed high-resolution solar spectra to study both atomic and molecular spectral lines.
- They focused on **neutral magnesium (Mg) and magnesium hydride (MgH)**, as well as neutral carbon (C) and its molecular forms CH and C<sub>2</sub>.

### How does the method work?

- The spectral lines of both atomic and molecular forms of magnesium and carbon are dependent on the abundance of hydrogen in the Sun's photosphere.
- Any variation in the helium content directly affects the abundance of hydrogen.
- If the helium abundance increases, the relative abundance of hydrogen decreases.

- This reduction in hydrogen availability impacts the formation of molecules like MgH and CH, and also lowers the opacity of the Sun's photosphere.

### Internal Structure of Sun

- Core:** The Sun's energy originates in its core through nuclear fusion reactions. With extremely high temperatures and pressures, the core fuses hydrogen into helium, releasing energy.
- Photosphere:** It has no solid surface but appears as a bright disk due to high gas density blocking deeper visibility.
- Chromosphere:** Located above the photosphere, this layer is less dense and usually visible only during solar eclipses or with special filters.
- Corona:** The outermost and most extended part of the Sun's atmosphere. It consists of very hot, low-density plasma and is visible during total solar eclipses.

Source: PIB

## FOURTH GLOBAL BLEACHING EVENT

### Context

- The **US National Oceanic and Atmospheric Administration in partnership with the International Coral Reef Initiative**, confirmed that the world is witnessing its **fourth global bleaching event**.

### About

- The **bleaching-level heat stress has impacted 83.7%** of the planet's coral reef area and mass **coral bleaching** has been recorded in at least **83 countries and territories**.



- ♦ The ongoing global coral bleaching event is the **biggest to date**.
- **Previous Bleaching:**
  - ♦ **The 1st and 2nd global coral bleaching events** occurred in 1998 and 2010, respectively.
  - ♦ **The 3rd global coral bleaching event**, which occurred from 2014-2017, when 68.2% of the world's reef area experienced bleaching-level heat stress.
- **Future Projections:** Climate models predict that by 2040-2050, nearly every coral reef worldwide will face annual bleaching events.
- **Great Barrier Reef Status:** Currently undergoing a sixth mass bleaching event.
  - ♦ Second consecutive bleaching episode after 2016-17.
  - ♦ Caused by prolonged marine heatwaves, especially in Far Northern and Northern regions.
- **Bleaching History in Australia:** Mass coral bleaching events recorded in 1998, 2002, 2016, 2017, 2020, 2022, and 2024.

#### What are Corals?

- Corals are **invertebrates** that belong to a large group of animals called **Cnidaria**.
  - ♦ Corals are formed by **multiple small, soft organisms known as polyps**.
  - ♦ They secrete a **rocky chalk-like (calcium carbonate) exoskeleton** around themselves for protection.
  - ♦ **Coral reefs** are therefore created by **millions of tiny polyps forming large carbonate structures**.
- **Appearance:** Corals range in colour from **red to purple and even blue**, but are most commonly shades of **brown and green**.
  - ♦ Coral are bright and colorful because of microscopic algae called **zooxanthellae**.
- **There are three types of coral reefs** – fringing reefs, barrier reefs and atolls.
  - ♦ **Fringing reefs form along shorelines, barrier reefs form in open water and atolls are circular reefs** that have formed around **sunken volcanoes**.

#### Coral Bleaching

- Coral bleaching occurs when **corals expel the colourful algae** living in their tissues.
- Without these helpful algae, the **corals become pale** and are vulnerable to **starvation and disease**.

- A bleached coral is not dead, but **ocean temperatures need to cool off for any hope of recovery**.
- At least **14% of the world's** remaining corals were estimated to have died in the previous two global bleaching events.

#### What triggers Coral Bleaching?

- The leading cause of coral bleaching is **climate change**.
  - ♦ A warming planet means a warming ocean, and a change in water temperature—as little as **2 degrees Fahrenheit**—can cause coral to drive out algae.
- Coral also bleaches for other reasons, like **extremely low tides, pollution, or too much sunlight**.

#### Concerns

- Coral bleaching matters because once these **corals die, reefs rarely come back**.
- With few corals surviving, they **struggle to reproduce**, and entire reef ecosystems, on which people and wildlife depend, **deteriorate**.
- This would have dire implications for **ocean health, subsistence fisheries and tourism**.

#### Impact of Coral Bleaching

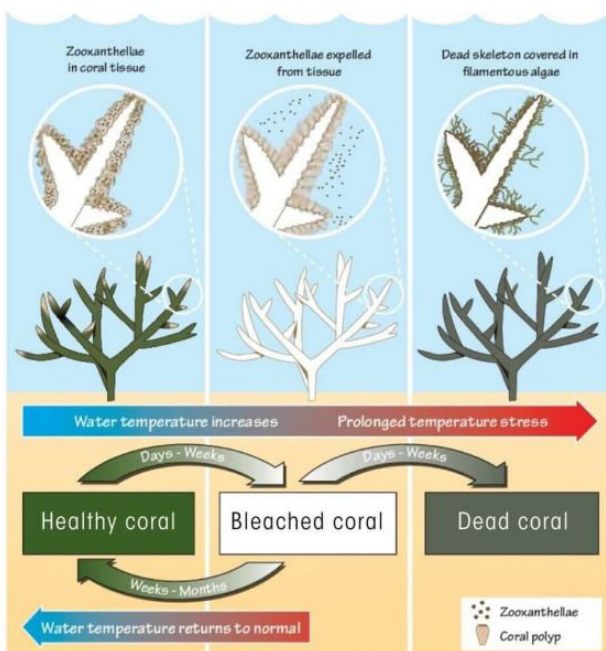
- **Wildlife:** Thousands of marine animals depend on coral reefs for survival.
  - ♦ Coral reefs **provide shelter, spawning grounds, and protection** from predators.
  - ♦ They also support organisms at the **base of ocean food chains**.
  - ♦ As reef ecosystems collapse, already **at-risk species may face extinction**.
- **Humans:** Coral reefs are natural barriers that absorb the force of waves and storm surges, keeping **coastal communities safe**.
  - ♦ Every year, reefs provide about \$2.7 trillion in goods and services, according to a 2020 estimate by the Global Coral Reef Monitoring Network.
  - ♦ Bleached coral also **compounds the overfishing crisis** by removing links in the food web and depriving some fish of a place to spawn and develop.
  - ♦ **Reef tourism** brings in billions of dollars each year and supports thousands of jobs.

#### Can corals recover from bleaching?

- Corals can recover if conditions improve, but recovery can take years or even a decade, depending on the extent of the damage.
- Corals can recover **only if temperatures drop and conditions return to normal**.



- When this happens, the **algae returns** and the corals gradually regain their health.



### Way Ahead

- Strengthening Marine Protected Areas (MPAs).
- Implementing coral restoration techniques**, such as coral gardening and breeding resilient coral species, to enhance recovery after bleaching events.
- Advocating for global **efforts to reduce greenhouse gas emissions** to limit temperature increases and ocean acidification.
- Increasing investment in research** to better understand coral resilience, bleaching triggers, and recovery processes, alongside developing advanced monitoring technologies.

Source: DTE

## NEWS IN SHORT

### VAIKOM SATYAGRAH

#### Context

- The year 2024 marked the **centenary year of Vaikom Satyagraha (1924)**.

#### About Vaikom Satyagraha

- Cause:** The movement was initiated against the **practice of untouchability**.
  - In Vaikom in the **erstwhile Travancore princely State**, members of the lower castes, particularly Dalits, were denied the right to walk on roads leading to the Vaikom Shiva Temple.

- Leadership:** It was led by **T.K. Madhavan, K. Kelappan**, and other prominent leaders.

- Mahatma Gandhi also supported the cause, sending his advice, although he did not physically participate in the protests initially.
  - E.V. Ramasamy Periyar**, a prominent social reformer and leader of the Self-Respect Movement, also lent support to the movement.
- Protest:** Participants in the Satyagraha (non-violent resistance) demanded the right of Dalits to use public roads and approach the temple like other castes.
  - They engaged in peaceful marches and acts of civil disobedience, despite facing violent opposition from upper-caste groups.
- Outcome:** After over a year of protest and negotiations, the Government eventually allowed Dalits to use the public roads leading to the temple, marking a victory for social equality and the end of caste-based discrimination in the region.

- Significance:** The Vaikom Satyagraha played a vital role in the social reform movement in Kerala and was an important part of the broader struggle against untouchability and caste oppression in India.

- It also marked the **first major organized movement against untouchability** in the Indian independence movement.

Source: TH

### SAARC VISA EXEMPTION SCHEME

#### In News

- The Indian government has announced that Pakistan nationals will not be permitted to travel to India under the **SAARC Visa Exemption Scheme (SVES)**.

#### About SAARC Visa Exemption Scheme

- It was **launched in 1992** and it was decided that certain categories of dignitaries from SAARC countries should be entitled to a **Special Travel document** that would exempt them from visas within the region.
- The **Visa Stickers** are issued by the respective Member states to the entitled categories of that **particular country**.
- The **validity of the Visa Sticker is generally for one year**. The implementation is reviewed regularly by the Immigration Authorities of SAAR Member states.

- The SAARC visa stickers were to ensure that their travel is **not limited to any specific cities** and would save them from the hassles like police reporting and filling of extra forms on entry in any of the eight SAARC countries.

#### About SAARC

- The South Asian Association for Regional Cooperation (SAARC) was established with the signing of the SAARC Charter in Dhaka on December 8, 1985.
- At present, SAARC comprises eight Member states: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

Source: TH

## WORLD MALARIA DAY 2025

#### Context

- Every year, 25th April is observed as 'World Malaria Day'.

#### About

- It is a global initiative organised by the **World Health Organisation (WHO)** to raise awareness about malaria and promote actions to control, prevent, and ultimately eliminate the disease.
- **Theme:** "Malaria ends with us: Reinvest, Reimagine, Reignite".

#### What is Malaria?

- **Malaria** is a life-threatening disease spread to humans by some types of mosquitoes. It is mostly found in tropical countries.
- **Transmission:** It is caused by **plasmodium protozoa**. The plasmodium parasites spread through the bites of infected female Anopheles mosquitoes. Blood transfusion and contaminated needles may also transmit malaria.
- **Types of parasites:** There are 5 Plasmodium parasite species that cause malaria in humans and 2 of these species – **P. falciparum** and **P. vivax** – pose the greatest threat. The other malaria species which can infect humans are **P. malariae**, **P. ovale** and **P. knowlesi**.
  - ♦ **P. falciparum is the deadliest malaria parasite** and the most prevalent on the African continent. P. vivax is the dominant malaria parasite in most countries outside of sub-Saharan Africa.
- **Symptoms:** Fever and flu-like illness, including chills, headache, muscle ache and fatigue.

Source: AIR

## SC TO EXAMINE CONCERNS ON POCSO CLAUSE

#### In News

- The Supreme Court will examine concerns raised by Indira Jaising that mandatory reporting under Section 19 of POCSO is criminalising consensual adolescent sexual activity and threatening girls' right to health.

#### The Protection of Children from Sexual Offences (POCSO) Act

- The Protection of Children from Sexual Offences (POCSO) Act, 2012, was enacted by the Government of India to protect children under 18 from sexual abuse and offences.
- The Act includes punishments based on the severity of the crime and was amended in 2019 to introduce **harsher penalties, including the death penalty**, for **child sexual crimes**, aiming to deter perpetrators.
- In addition, the POCSO Rules, 2020, were notified, which include Rule-9 allowing Special Courts to order interim compensation for the child's relief or rehabilitation after the registration of the First Information Report (FIR).
  - ♦ This interim compensation can be adjusted against the final compensation, if applicable.

Source: TH

## TAX COLLECTED AT SOURCE

#### In News

- Luxury goods priced above 10 lakh, such as handbags, watches, and sportswear are now subject to a 1% Tax Collected at Source (TCS).

#### Tax Collected at Source (TCS)

- It is an **advance tax collected** at the time of transactions, such as the sale of goods or foreign remittances.
  - ♦ It is mentioned in section 206C of the Income Tax Act, 1961.
- Under Budget 2025, TCS on goods sales will be phased out, but it will still apply to foreign remittances.
- If the remittance exceeds a threshold, the remitter must pay the advance tax to the bank facilitating the transaction.
- This is **not an extra tax** but can be adjusted against the **tax liability when filing the return**.
  - ♦ If the tax liability exceeds the TCS, the taxpayer must pay the balance;
  - ♦ if it's less, they are eligible for a refund. The threshold for TCS on remittances has been raised from ₹7 lakh to ₹10 lakh.

**Do you know ?**

- The **TCS provision for luxury goods** was introduced via the **Finance Act, 2024, as part of the Budget presented in July, 2024.**
- It aims to monitor high-value spending, expand the tax base, and improve financial transparency.

Source :TH

**CHLORPYRIFOS PESTICIDE****Context**

- Indian experts have called for an **immediate ban on chlorpyrifos, a toxic pesticide.**

**About**

- Chlorpyrifos, a pesticide classified as **'moderately hazardous' by the World Health Organization**, continues to be used in India.
- It is used on a variety of crops, posing a serious threat to farmers, consumers, future generations and ecosystems.
- It is linked to the irreversible **brain damage in children** and is **banned in over 40 nations.**

**The Stockholm Convention**

- World's leading policymakers and scientists will convene in Geneva for the 2025 Conferences of the **Parties to the Basel, Rotterdam and Stockholm Conventions (BRS COP).**
- **The Stockholm Convention, adopted in 2001,** aims to **eliminate or restrict persistent organic pollutants** — chemicals that cause long-term ecological and health damage.
- In addition to **chlorpyrifos**, delegates at the BRS COPs were expected to consider **adding other pesticides to Annex III of the Rotterdam Convention.**
  - ♦ This step would strengthen **transparency and accountability in the global trade of pesticides.**
- India ratified the **Stockholm Convention and Rotterdam Convention in 2006.**
  - ♦ Both the conventions are **legally binding.**

**The Rotterdam Convention**

- The Rotterdam Convention is a **multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals.**
- The convention promotes **open exchange of information** and calls on exporters of hazardous chemicals to **use proper labeling**, include directions on safe handling, and inform purchasers of any known restrictions or bans.

- **Signatory Nations can decide whether to allow or ban** the importation of chemicals listed in the treaty, and exporting countries are obliged to make sure that producers within their jurisdiction comply.

Source: DTE

**PALMYRA****Context**

- The Syrian civil war in 2011, turned Palmyra's strategic location into a conflict zone, leading to widespread destruction of its ancient monuments.

**About**

- **Location: Palmyra** is an ancient city in central Syria, nestled in an oasis surrounded by palms and flanked by the **northern and southern Palmyrene** mountain ranges.
- **Historical Significance:** It has been a site of human settlement since the Neolithic period. Historical documents first mention the city in the early **second millennium BCE.**
  - ♦ In the 1st century AD it was integrated into the **Roman Empire.**
  - ♦ Situated at a key junction on the **Silk Road**, Palmyra became a major trade and cultural hub, linking the Roman Empire with Persia, India, and China.



- **Architectural Significance:** The site is a fusion of Graeco-Roman, local, and Persian architectural styles. Key features include;
  - ♦ Grand colonnaded street (1100 metres)
  - ♦ Temple of Ba'al
  - ♦ Theatre, Agora, Diocletian's Camp
  - ♦ Funerary monuments and necropolis (Valley of the Tombs)
  - ♦ Roman aqueduct.
- Palmyra was inscribed as a **UNESCO World Heritage Site in 1980.**

Source: IE