

DAILY CURRENT AFFAIRS (DCA)

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PILLARS OF INDIA-MALDIVES RELATIONS

Context

- Recently India's External Affairs Minister said that India's relations with Maldives rest on the twin important pillars of 'mutual interests' and 'reciprocal sensitivity'.

Background

- The undiplomatic words used by ministers in Maldives against Prime Minister Narendra Modi in particular and Indians in general has deteriorated the relations between both the nations.
- The new government led by President Mohamed Muizzu asked India to withdraw military personnel and chose China for one of his first overseas visits.

Significance of Maldives for India

- **Trade Route:** Situated along crucial maritime trade routes between the Gulf of Aden and the Strait of Malacca, the Maldives acts as a "toll gate" for nearly half of India's external trade and 80% of its energy imports.
- **Strategic Location:** The Maldives is strategically located in the Indian Ocean, and its stability and security are of interest to India.
- **Counterbalancing China:** Maldives presents an opportunity for India to counterbalance China's growing influence in the Indian Ocean, fostering regional balance of power.
- **Economic partnership:** India is one of the biggest investors and tourism markets for the Maldives, with significant trade and infrastructure projects underway.
- **Defense and Security Cooperation:** Since 1988, defense and security has been a major area of cooperation between India and Maldives.
 - ♦ A comprehensive **Action Plan for Defence was also signed in 2016** to consolidate defense partnership.
 - ♦ Estimates suggest that almost **70 percent of Maldives' defense training** is done by India — either on the islands or in India's elite military academies.

Significance of India for Maldives

- **Essential Commodities:** India supplies Maldives with its everyday essentials: rice, spices, fruits, vegetables, poultry, medicines and life-saving drugs.

- **Education:** Every year, Maldivian students come to Indian higher educational institutions.
- **Economic dependence:** Of the Rs 50 crore total trade between India and Maldives in 2022, Rs 49 crore was India's exports to Maldives. India emerged as Maldives' second largest trade partner in 2022.
- **Disaster Relief Assistance:** When a tsunami struck the islands in 2004, India was the first to send in help.
 - ♦ **In 2014 Male had a drinking water crisis** as the major desalination plant broke down, India overnight airlifted drinking water to the islands.
 - ♦ **During the Covid-19 pandemic,** India sent essential medicines, masks, gloves, PPE kits and vaccines for the island country.

Challenges in Relations

- **Domestic turmoil in the Maldives:** Recent political upheavals and changes in government have created uncertainty and complicated long-term cooperation projects.
- **Chinese Influence:** China's growing economic presence in the Maldives, evidenced by investments in infrastructure projects and debt-trap diplomacy, is perceived as a challenge to India's strategic interests in the region.
- **Military ambitions:** Chinese naval expansion and potential military ambitions in the Indian Ocean with the active support from Maldives has raised concerns for India.
- **Trade imbalance:** The significant trade imbalance between India and the Maldives could lead to resentment and calls for diversifying trade partnerships.

Way Ahead

- The evolution of India-Maldives relations reflects a combination of geopolitical dynamics, changes in leadership, and shared regional interests.
- India is steadfast in its commitments towards Maldives and has always walked the extra mile towards building relations.
- By acknowledging and addressing the ongoing issues, India and Maldives can navigate the complexities of their relationship and build a stronger, more resilient, and mutually beneficial partnership for the future.

Source: TH

INDIA CONTRIBUTED TO THE U.N. COUNTER-TERRORISM TRUST FUND

Context

- India has contributed **\$500,000** to the **U.N. Counter-Terrorism Trust Fund**, underscoring commitment to support the global fight against the terrorism.
 - ♦ With its current contribution, India's cumulative financial support to the trust fund now stands at \$2.55 million.

About

- India's contribution would support UNOCT's global programmes — **mainly Countering Financing of Terrorism (CFT) and Countering Terrorist Travel Programme (CTTP)**.
- They are aimed to combat the financing of terrorism and prevent the movement of terrorists in Africa.
 - ♦ Addressing the issue of the growing threat of terrorism in Africa has been one of the counter-terrorism priorities of India for the past few years.

U.N. Counter-Terrorism Trust Fund

- The Fund was established in **2009** by the Secretary-General and transferred to the United Nations Office of Counter-Terrorism when it was created in 2017.
- The Fund accepts contributions from Governments, inter-governmental and non-governmental organizations, private institutions and individuals.
- Since its inception in 2009, UNOCT mobilized US\$379.5 million in pledges from 42 funding partners and through allocations from the United Nations Peace and Development Trust Fund.

What is Terrorism?

- Terrorism encompasses a **range of complex threats**: organized terrorism in conflict zones, foreign terrorist fighters, radicalized 'lone wolves', and attacks using chemical, biological, radiological, nuclear and explosive materials.
- It typically involves the **deliberate targeting of civilians** and it aims **to create a sense of terror**.
- It's a complex and multifaceted phenomenon, **often rooted in socio-political grievances, extremism, or radical ideologies**.

The modus operandi of the Global Terrorist Groups is as under:

- **Use of Advanced Technology:** There has been a shift in terms of access to advanced technology by terrorist groups that has given terrorist groups **a tactical edge to carry out their operations seamlessly**.
- **Encrypted Messaging:** GTGs are highly dependent on the encrypted messaging platforms for instructions and preparations of terror attacks, revival of their sleeper cells.
- **Funding:** Crowd funding and virtual currencies like bitcoins are heavily used for terror financing.
- **Lone Wolf Attacks:** GTGs continue to urge sympathizers and followers across the world to carry out lone wolf attacks.
- **Radicalisation:** They radicalized youth through misinformation and false narrative via extensive use of social media platforms.

Challenges in Tackling Terrorism

- **Use of Evolving Techniques:** Terrorist groups continuously evolve their tactics, techniques, and procedures to evade detection and carry out attacks.
 - ♦ There has been notable increase in use of drones for cross-border trafficking of arms and drugs as well as launching terror attacks.
- **Transnational Nature:** Terrorism often transcends national borders, making it difficult for individual nations to address the threat effectively.
- **Root Causes:** Addressing the root causes of terrorism, such as poverty, inequality, political grievances, and extremist ideologies, requires long-term strategies that go beyond traditional security measures.
- **Civil Liberties and Human Rights Concerns:** Balancing security measures with the protection of civil liberties and human rights presents a significant challenge.
 - ♦ Measures such as surveillance, detention without trial, and restrictions on freedom of speech raise ethical concerns.
- **Cyberterrorism:** The internet provides a platform for terrorist propaganda, recruitment, and coordination.
 - ♦ Addressing online radicalization and countering terrorist narratives in cyberspace requires collaboration between governments, tech companies, and civil society organizations.

- **Financing and Resources:** Tracking and disrupting terrorist financing networks can be challenging due to the use of informal channels, money laundering techniques, and legitimate financial institutions.
- **Lone Actors:** The rise of homegrown terrorists and lone actors presents a challenge for counterterrorism efforts.
 - ◆ These individuals may not have direct connections to established terrorist groups, making them harder to detect and prevent.

Global Measures Taken to Combat Terrorism

- **United Nations Counterterrorism Framework:** The UN Security Council has adopted several resolutions that provide a legal framework for counterterrorism actions, including measures to prevent terrorist financing, stem the flow of foreign fighters, and strengthen border security.
- **Financial Action Task Force (FATF):** FATF is an intergovernmental organization that sets standards and promotes policies to combat money laundering and terrorist financing.
 - ◆ Member countries implement FATF recommendations to strengthen their anti-money laundering and counterterrorism financing regimes.
- **Global Counterterrorism Forum (GCTF):** GCTF is a multilateral forum that facilitates cooperation and capacity-building initiatives to strengthen counterterrorism efforts worldwide.
- **Intelligence Sharing and Cooperation:** Bilateral and multilateral intelligence-sharing agreements enable countries to exchange information on terrorist threats, suspects, and activities.
- **Aviation Security Measures:** In response to the threat of aviation terrorism, countries have implemented stringent security measures at airports and aboard aircraft.
- **Cybersecurity Collaboration:** International initiatives promote information sharing, capacity building, and the development of common standards to enhance cyber defenses.

Terrorism in India

- It is mainly cross-border terrorism, sponsored by neighboring countries.
- The **means and methods adopted by terrorists include infiltration** through the land borders, sea routes, illegal immigration through sea/land routes etc.

- India has been a victim of terrorism for **more than three decades**.
- Pakistan's Inter Service Intelligence (ISI) has close links with terrorist outfits like Lashkar-e-10 Taiba (LeT), Jaish-e-Mohammad (JeM), Hizb-ul-Mujahideen (HM), Indian Mujahideen (IM), etc. and provides them safe havens, material support, finance and other logistics to carry out terrorist activities in India.

India's Efforts to Combat Terrorism

- **India's annually tables a resolution** in the United Nations General Assembly First Committee titled "Measures to prevent terrorists from acquiring weapons of mass destruction".
- **India is party to all the 13 universal instruments against terrorism**, including the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT). India is a party to the Convention on the Physical Protection of Nuclear Material (CPPNM) and its Amendment.
- **Legislative Measures:** India has enacted several laws to combat terrorism, including the Unlawful Activities (Prevention) Act (UAPA), which provides legal mechanisms to deal with terrorist activities, organizations, and financing.
- **Diplomatic Initiatives:** Government consistently raises the issue of Pakistan's continuing support to cross-border terrorism and terrorist infiltration at the bilateral, regional and multilateral level.
- **Strategic Partnerships:** India has cultivated strategic partnerships with countries like the United States, Israel, and various Gulf states to enhance counterterrorism cooperation. These partnerships involve intelligence sharing, defense cooperation, and capacity-building initiatives.
- **Technology and Cybersecurity:** Implementation of Drone Rules by the Ministry of Civil Aviation.
 - ◆ The mandate of the National Investigation Agency has been expanded by including Cyber Terrorism in the list of scheduled offences.
 - ◆ Indian Computer Emergency Response Team (CERT-In), has been designated under the Information Technology Act, 2000 to serve as the national agency in the area of cyber security incident response.

Conclusion

- **Countering radicalization and addressing socio-economic and political grievances** are essential components of comprehensive counterterrorism efforts.
- **Collaboration on cybersecurity** is essential for combating cyberterrorism and preventing terrorist use of the internet for recruitment and propaganda.

Source: TH

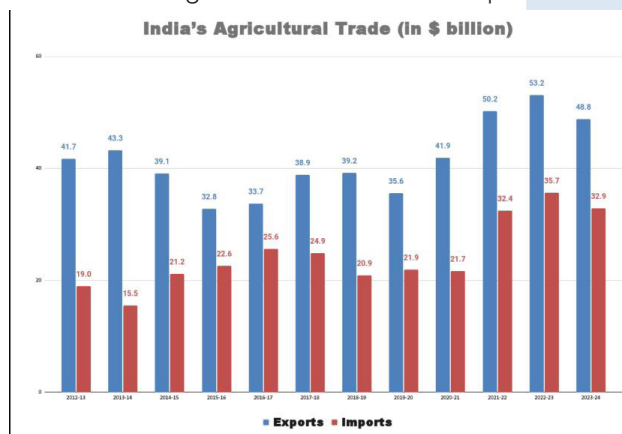
INDIA'S AGRICULTURAL EXPORTS FELL

Context

- India's agricultural exports **fell 8.2%** in 2024 on the back of shipment curbs on a host of commodities, from cereals and sugar to onions.

About

- The value of farm exports totaled \$48.82 billion in 2023-24, down from the record \$53.15 billion of 2022-23 and \$50.24 billion for the previous fiscal.
- **Low international prices** reduced the cost competitiveness of the country's exports, while also making it more vulnerable to imports.



- **Drivers of fall in exports:** The fall in exports has been led primarily by wheat, sugar and non-basmati rice.
 - ◆ Concerns over domestic availability and food inflation triggered a ban on exports.
 - ◆ Two other items that have faced export restrictions triggered by domestic shortages and rising prices — are wheat and onion.

India's Agricultural Policy

- The Government introduced a **comprehensive Agriculture Export Policy in 2018**, with the following objectives:

- ◆ To diversify our export basket, destinations and boost high value and value added agricultural exports, including focus on perishables.
- ◆ To promote novel, indigenous, organic, ethnic, traditional and non-traditional Agri products exports.
- ◆ To provide an institutional mechanism for pursuing market access, tackling barriers and dealing with sanitary and phytosanitary issues.
- ◆ To strive to double India's share in world agri exports by integrating with global value chains.
- ◆ Enable farmers to benefit from export opportunities in overseas markets.

Challenges

- **Lack of Policy Stability:** Farmers and agri-traders, like all businessmen, want policy stability and predictability.
 - ◆ When governments resort to banning/restricting agri exports — they usually privilege the interests of consumers over producers.
 - ◆ These actions hurt more when taken overnight, like with wheat exports.
- **Domestic Food Security:** Promoting agricultural exports must be balanced with ensuring domestic food security.
- **Price Volatility:** Fluctuations in global commodity prices and market demand lead to price volatility for agricultural products, affecting farmers' income and livelihoods.
- **Quality and Safety Standards:** Meeting stringent quality and safety standards required by international markets is challenging for Indian agricultural exporters.
- **Infrastructure Bottlenecks:** Poor infrastructure leads to high transportation costs, post-harvest losses, and delays in shipment, reducing the competitiveness of Indian agricultural products in global markets.
- **Trade Barriers and Tariffs:** Tariffs, non-tariff barriers, and trade restrictions imposed by importing countries hinder Indian agricultural exports.

- **Smallholder Participation:** Smallholder farmers constitute a significant proportion of agricultural producers in India and often face challenges in accessing export markets due to limited resources, capacity, and market linkages.

Government Initiatives to promote India's Agriculture Export

- **Agri Export Policy (AEP):** It focuses on addressing constraints in the agricultural export ecosystem, enhancing infrastructure, reducing transaction costs, and promoting value addition and market access for agricultural products.
- **Market Access Initiatives:** The government negotiates trade agreements, market access arrangements, and bilateral trade deals to expand market access for Indian agricultural products in target countries.
- **Agricultural Infrastructure Fund (AIF):** The AIF provides financial support for the development of agricultural infrastructure, including cold storage facilities, packhouses, processing units, and transportation networks.
- **Quality Certification and Standards Compliance:** Initiatives such as the National Programme for Organic Production (NPOP) and the Export Inspection Council (EIC) certification help exporters meet regulatory requirements in target markets.
- **Trade Infrastructure for Export Scheme (TIES):** TIES aims to develop export infrastructure and logistics facilities, including warehouses, cold storage, packaging centers, and trade promotion centers.
- **Assistance to the exporters of agricultural products** is also available under the Export Promotion Schemes of Agricultural & Processed Food Products Export Development Authority (APEDA), Marine Products Export Development Authority (MPEDA), Tobacco Board, Tea Board, Coffee Board, Rubber Board and Spices Board.
- **Product specific Export Promotion Forums (EPF)** for eight high potential agri products i.e. Grapes, Mango, Banana, Onion, Rice, Nutri-Cereals, Pomegranate, Floriculture & Plant material have been created under the APEDA which will work on promoting the export of identified products in a focused manner.

Way Ahead

- **A more predictable and rules-based policy** introducing temporary tariffs instead of outright

bans or quantitative restrictions is what many economists would recommend.

- **Addressing trade barriers** through negotiations, trade diplomacy, and dispute resolution mechanisms is necessary to expand market access for Indian agricultural products.
- India's agricultural exports are heavily dependent on a few traditional markets, such as the Middle East, Southeast Asia, and the United States.
 - ♦ **Diversifying export markets and exploring new opportunities** in emerging economies can reduce dependence on specific markets and enhance resilience to external shocks.

Source: IE

THIRTY YEARS OF MARRAKESH AGREEMENT

Context

- India has called for re-energising discussions in the World Trade Organisation (WTO) on the development dimension to achieve tangible progress and meaningful outcomes.

About

- **Development agenda** refers to issues being pushed by developing and least developed nations. These issues include access to finance and technology, food security, and supply chain resilience.
- In a paper on **'30 years of WTO: how has the development dimension progressed? – A 'way forward'** submitted recently to the WTO General Council, India asked all members to submit proposals on such issues to bring back focus on the development dimension of WTO.

World Trade Organization (WTO)

- **WTO** is the international organization that deals with the rules of trade between countries.
- **History: WTO** is the successor to the General Agreement on Tariffs and Trade (GATT) established in the wake of the Second World War.
 - ♦ **The Marrakesh Agreement** establishing the World Trade Organization was signed by 123 countries in 1994, leading to the birth of the WTO on 1 January 1995.
- **Headquarters:** Geneva, Switzerland
- **Member:** The WTO is run by its 164 members.

- **Mandate:** Its aim is to promote free trade, which is done through trade agreements that are discussed and signed by the member states.
 - ♦ **The preamble** of the Marrakesh Agreement accords primacy to the developmental objectives of this organization.

Organizational Structure of WTO

- **Ministerial Conference:** The WTO's apex decision-making body is the Ministerial Conference, which usually takes place every two years.
 - ♦ All members of the WTO are involved in the Ministerial Conference and they can take decisions on all matters covered under any multilateral trade agreements.
- **General Council:** It is just below the Ministerial Conference that meets several times a year at the WTO's headquarters in Geneva.
 - ♦ It meets as the Trade Policy Review Body and the Dispute Settlement Body.
 - ♦ **Trade Related Intellectual Property Rights (TRIPS) Council:** It is for the Goods, Services, and Intellectual Property, and it reports to the General Council.

India and WTO

- **India** has been a WTO member since **1 January 1995**.
- **Peace Clause:** WTO members at the **Bali ministerial meeting in 2013** put in place a mechanism called the **Peace Clause** to tackle the differences between nations on food subsidy.
 - ♦ Under this clause, developing nations could not be dragged to arbitration if they did breach the prescribed limit of **10 per cent** on support to farmers.
 - ♦ However, there was confusion over whether the temporary reprieve would continue after four years.
- **Concerns of Western nations:** Large agriculture commodity exporters such as the US and Canada are critical of such a move as they believe that higher subsidies are distorting agriculture prices in the global market.
 - ♦ It is also argued that public stockholding at administered prices gives countries such as India an unfair competitive advantage in trade, contradicting the WTO's principles of open and fair trade.

- **Protectionist Measures:** India has expressed serious concerns in a WTO meeting over an increase in the use of trade protectionist measures by certain countries in the name of environment protection.

India's stand

- India, proposed that domestic support provided by a developing country for PSH programmes should be considered compliant with the **WTO's AoA (Agreement on Agriculture) rules** and not subject to reduction commitments.
- **The external reference price** for calculating the subsidy element is pegged to **1986-88 prices**, which leads to inflated subsidy calculations because existing international prices are much higher.

Way Ahead

- The WTO must adapt to the changing dynamics of global trade and ensure that it continues to play its role effectively in the years to come.
- India has suggested that WTO bodies, which hold thematic sessions, should devote at least one session to discuss specific needs of LDCs, LLDCs and Small Island Development States.
- WTO bodies which are underutilized such as the Working Group on Trade and Transfer of Technology and the Working Group on Trade, Debt and Finance should be reinvigorated, bringing in greater coherence with relevant intergovernmental organizations.

Source: **BL**

NEWS IN SHORT

FLOOR TEST

Context

- Recently, it was found that Haryana is facing a 'Floor Test' amidst independent MLAs withdrawing support from the government.

About Floor Test (aka Trust Vote)

- It is a **constitutional mechanism** used to determine whether the incumbent government enjoys the support of the legislature.
- Under it, a Chief Minister appointed by the Governor can be asked to prove majority on the floor of the Legislative Assembly.

- It is primarily taken to know whether the executive enjoys the confidence of the legislature.

Do you know?

- The appointed chief minister usually belongs to the single largest party or the coalition which has the 'magic number'.
- The magic number is the total number of seats required to form a government, or stay in power. It is the half-way mark, plus one.
 - ◆ In case of a tie, the **Speaker casts the deciding vote.**

Composite Floor Test

- It is conducted only when **more than one person or party** stakes a claim to form the government.
- When the **majority is not clear**, the governor might call for a special session to see who has the majority.
- The majority is counted based on those present and voting and this can be done through voice vote also.

Role of the Governor

- Under **Article 175(2)**, the Governor can summon the House and call for a floor test to prove whether the government has the numbers.
 - ◆ However, the Governor can exercise the above **only as per Article 163** of the Constitution which says that the Governor **acts on the aid and advice of the Council of Ministers** headed by the Chief Minister.
- **Article 174(2)(b)** of the Constitution gives powers to the Governor to dissolve the Assembly on the aid and advice of the cabinet.
- When the **Assembly is not in session**, the **Governor's residuary powers** under Article 163 allow him to call for a floor test.
 - ◆ But, when the **Assembly is in session**, it is the **Speaker** who can call for a floor test.

Source: TH

NITROGEN DIOXIDE POLLUTION

Context

- A recent study has raised concerns about the health risks associated with gas and propane stoves as it can significantly increase indoor air pollution levels of nitrogen dioxide (NO₂).

About

- The study found that homes with gas or propane stoves expose residents to an estimated **4 parts per billion (ppb)** increase in nitrogen dioxide (NO₂) on average over a year.
- **Nitrogen dioxide** is a **reddish-brown, pungent, acidic gas** that is corrosive and strongly oxidizing.

Sources of nitrogen dioxide (NO₂)

- **Anthropogenic activities:** The main source of nitrogen dioxide resulting from human activities is the combustion of fossil fuels (coal, gas and oil) especially fuel used in cars.
 - ◆ It is also produced from making nitric acid, welding and using explosives, refining of petrol and metals, commercial manufacturing, and food manufacturing.
- **Natural sources** of other nitrogen oxides include volcanoes and bacteria.

Effects of nitrogen dioxide (NO₂)

- **Health:** Nitrogen dioxide can decrease the lungs' defenses against bacteria making them more susceptible to infections. It can also aggravate asthma.
- **Ecosystem:** Nitrogen dioxide is toxic to plants in short-term concentrations of 120µg/m³. It reduces plant growth.
 - ◆ Along with sulfur dioxide, nitrogen dioxide can cause acid rain.
 - ◆ Nitrogen dioxide can form secondary particles called nitrates that cause haze and reduce visibility.

Source: DTE

PADMA AWARDS 2024

Context

- President Droupadi Murmu conferred Padma awards during a Civil Investiture Ceremony at Rashtrapati Bhawan in Delhi.

What are Padma Awards?

- **About:**
 - ◆ Padma Awards are one of the **highest civilian honors of India** announced annually on the eve of Republic Day **after the Bharat Ratna.**
 - ◆ The Award seeks to recognize achievements in all fields of activities or disciplines where an **element of public service** is involved.

- ♦ The **award does not amount to a title** and cannot be used as a suffix or prefix to the awardees' name.
- ♦ The awards are presented by the President of India.
- **Categories:** The Awards are given in **three categories:**
 - ♦ **Padma Vibhushan** is awarded for 'exceptional and distinguished service;
 - ♦ **Padma Bhushan** is awarded for 'distinguished service of a high order'; and
 - ♦ **Padma Shri** is awarded for 'distinguished service'.
- **For 2024**, the President had approved the conferment of **132 Padma awards**, including two duo cases (in a duo case, the award is counted as one).
 - ♦ The list comprises **five Padma Vibhushan, 17 Padma Bhushan, and 110 Padma Shri awards.**
- ♦ EO has the potential to reduce greenhouse gas emissions by up to 2.2 gigatonnes annually, equivalent to the emissions of 476 million cars.
- **Region Wise:** By 2030, the **Asia Pacific region** is anticipated to lead in capturing the value of EO, potentially reaching \$315 billion.
 - ♦ **Africa and South America** are expected to experience the most substantial percentage growth in this regard.
- **Sector Wise:** Approximately **94% of the total value** that EO could offer by 2030 is projected to come from sectors like **agriculture, electricity and utilities, government, insurance, mining, oil and gas, and supply chain and transport.**
 - ♦ EO data can help industries innovate, work more efficiently, and manage risks better worldwide.

Source: TH

ECONOMIC AND ENVIRONMENTAL VALUE OF EARTH OBSERVATION DATA

Context

- A new **World Economic Forum (WEF) report** suggested that Earth Observation (EO) data could add **up to \$3.8 trillion to the global GDP by 2030**, while advancing a wide range of climate and nature solutions.

About Earth Observation (EO)

- It involves the **process of gathering information** about the **planet's physical, chemical, and biological systems** using remote sensing technologies such as **satellites, drones, and sensors.**
- It allows us to study things like **land use, weather patterns, and biodiversity** from afar.
- The EO data helps us understand our planet's changes, manage resources, and make decisions about the environment.

Key Findings of the Report

- **Economic and Environmental Impact:** The global value of EO data is projected to increase from \$266 billion to over \$700 billion by 2030.

Role of Technology

- The report identifies the **convergence of EO with artificial intelligence, digital twins, and climate technology** as a vital component of the **Fourth Industrial Revolution.**
 - ♦ It offers a powerful toolset for economic prosperity and sustainable growth.
 - ♦ As EO data approaches mainstream accessibility, organisations across nearly all industries stand to benefit from these valuable sustainability insights.

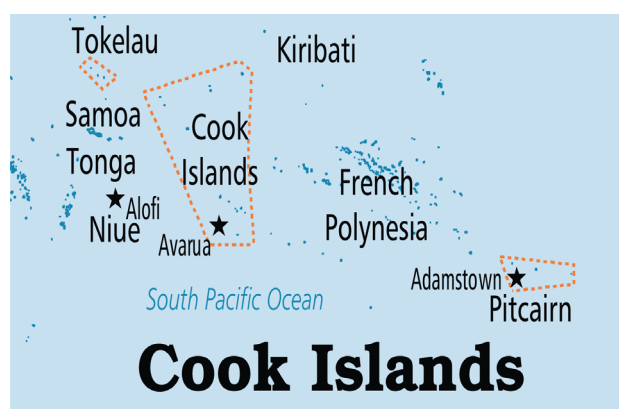
Source: NDTV

COOK ISLANDS

In News

- Deep-sea mining companies have been exploring the the Cook Islands for minerals used in electric car batteries

About Cook Islands



- Cook Islands comprises 15 small islands, spread over 2.2 million square kilometres, between American Samoa and French Polynesia, South of Hawaii.
- The Cook Islands lie in the South Pacific Ocean, about 2 900 km northeast of **New Zealand and about 4500 km south of Hawaii.**
- **Avraru**, on the island of Rarotonga, is the national capital.
- Cook Islands is self-governing in 'free association' with **New Zealand**, an arrangement dating from August 1965.
- Sperm whales are the largest of the toothed whales.
- **Life Span:** They have a lifespan similar to humans, living about 70 years.
- **Threats:** Deep-sea oil and gas exploration can cause multiple issues for sperm whales such as loss of hearing, water pollution from hydrocarbons, and increased risk of being hit by ocean vessels.
- **Conservation Status:** IUCN **Vulnerable.**
 - They are protected **under Schedule 2 of the Wildlife Protection Act** and possession or trade of any of its by-products, including Ambergris is **illegal.**
 - They are listed in **Appendix I of the CITES** (Convention on International Trade in Endangered Species of Wild Fauna and Flora).
 - However, ambergris is not covered in CITES provisions as it is considered a **naturally excreted waste** product and trade of which is legal in many countries.

Source: TH

SPERM WHALE

Context

- Scientists studying the sperm whales that live around the Caribbean island of Dominica have described for the **first time the basic elements of how they might be talking to each other.**

About

- Sperm whales communicate by **squeezing air through their respiratory systems** to make strings of rapid clicks that can sound like an extremely loud zipper underwater.

About Sperm Whale

- **Name:** Sperm whale (*Physeter macrocephalus*).
 - Sperm whales got their name because the semi-liquid, waxy substance in their head was first believed to be sperm.
- **Distribution:** They occur throughout the world's oceans and in the Mediterranean Sea.
- **Appearance:** It is a large, dark-colored, toothed whale with a massive, square-shaped head that can make up more than a third of its body length.



Ambergris

- Ambergris means **grey amber in French**, is a **waxy substance** that originates from the **digestive system** of sperm whales.
- Due to its high value in the market, ambergris is often called the **'floating gold' and 'treasure of the sea'**.
- Ambergris is a **rare substance**, which contributes to its high demand and high price in the international market.

Source: HT

CONSTRUCTED WETLANDS

Context

- **Constructed wetlands** are nature's solution for **wastewater treatment in India.**

Constructed Wetlands

- Constructed wetlands are engineered structures designed to **replicate the functions of natural wetlands.**
- They are composed of meticulously chosen vegetation, soil and water, orchestrated to **facilitate a seamless process of purification.**
- **They are divided into two categories:** subsurface flow (SSF) and surface flow (SF).

- ◆ SSF wetlands direct wastewater **through gravel beds or porous media**, promoting microbial activity that degrades organic matter.
 - ◆ In contrast, SF wetlands demonstrate their **aesthetic appeal** above the water's surface, with gently flowing streams and lush vegetation.
 - One such example is the **Asola Bhatti Wildlife Sanctuary in Delhi**, situated on the city's outskirts.
 - ◆ Here, a constructed wetland system aids in purifying sewage from nearby settlements while also providing a sanctuary for diverse flora and fauna, thus contributing to regional biodiversity conservation.
 - **The Kolkata East Wetlands in West Bengal**, designated as a **Ramsar site**, feature a vast network of natural and constructed wetlands.
- Source: DTE

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