

DAILY CURRENT AFFAIRS (DCA)

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HORTICULTURE CLUSTER DEVELOPMENT PROGRAMME (CDP)

Context

- The government has come up with a new platform to disburse subsidies to **horticulture farmers** under the **Cluster Development Programme (CDP)** known as **CDP-SURAKSHA**.

CDP-SURAKSHA

- The CDP-SURAKSHA is essentially a digital platform. SURAKSHA stands for **“System for Unified Resource Allocation, Knowledge, and Secure Horticulture Assistance.”**
- The platform will allow an **instant disbursal of subsidies to farmers** in their bank account by utilising the **e-RUPI voucher** from the **National Payments Corporation of India (NPCI)**.
 - The voucher is a **one-time payment mechanism** that can be redeemed without a card, digital payments app or internet banking access, at the merchants accepting e-RUPI.
 - e-RUPI can be shared with the beneficiaries for a specific purpose or activity by organisations or government via SMS or QR code.
- Significance:** The CDP-SURAKSHA platform will provide subsidies to farmers upfront, at the time of purchasing the planting material.
 - Vendors, who will supply planting materials to farmers, will receive their payment only after farmers verify the delivery of their orders.
 - The move seeks to push the growth of India’s horticulture sector.

Horticulture Sector in India

- Horticulture is the science and art of **cultivating fruits, vegetables, flowers, and ornamental plants**.

- It encompasses a wide range of activities including **plant propagation, production, management, and marketing**.
- The Indian horticulture sector contributes about **33% to the agriculture Gross Value Added (GVA)** making a very significant contribution to the Indian economy.
- India is currently producing about **320.48 million tons of horticulture produce** which has surpassed the food grain production, that too from much less area.
 - Productivity of horticulture crops is much higher compared to productivity of food grains.
- At present, India is the **second largest producer** of vegetables and fruits in the world.
 - India ranks first in the production of a number of crops like Banana, Lime & Lemon, Papaya, Okra.
- India’s advantage lies in being a **low-cost producer of fruits and vegetables** because of a **combination of factors such as** favourable agro-climatic conditions, availability of labour, and low input costs.
 - As a result, fruits and vegetables account for almost 90% of the total horticulture production in the country.

Challenges Faced by the Sector

- Lack of Infrastructure:** Insufficient infrastructure for post-harvest handling, storage, and transportation leads to significant losses of perishable horticultural produce.
- Water Management:** Horticulture is water-intensive, and water scarcity or inefficient water management practices affect crop yields and quality.
- Pest and Disease Management:** Pests and diseases cause significant damage to horticultural crops, and the misuse of pesticides lead to environmental pollution and health hazards.

- **Market Linkages:** Limited market linkages and price fluctuations affect farmers' income and discourage investment in horticultural production.
- **Climate Change:** Erratic weather patterns, including unpredictable rainfall and temperature fluctuations, pose challenges to horticultural production and require adaptation strategies.
- **Quality Standards and Certification:** Meeting quality standards and obtaining certification for export markets can be challenging for small-scale horticultural producers.
- **Mission for Integrated Development of Horticulture (MIDH):** MIDH, launched in **2014**, integrates various horticulture development schemes under one umbrella to provide holistic support for the entire value chain, from pre-production to post-harvest management and marketing.
- **Rashtriya Krishi Vikas Yojana (RKVY):** RKVY supports states in planning, implementing, and monitoring their horticulture development strategies by providing financial assistance for infrastructure development, capacity building, and other interventions.

Government of India Initiatives for the Promotion of Horticulture Sector

- **National Horticulture Mission (NHM):** Launched in **2005-06**, NHM aims to promote holistic growth of the horticulture sector by enhancing production, productivity, and quality of horticulture crops.
 - ♦ It focuses on creating infrastructure, providing technical assistance, and promoting market linkages.
- **National Horticulture Board (NHB):** NHB provides financial assistance, technical guidance, and market intelligence to horticulture growers, processors, and exporters to promote production, processing, and marketing of horticultural crops.
- **Cluster Development Program (CDP):** The CDP is a component of the central sector scheme of NHB.
 - ♦ It is aimed at leveraging the geographical specialisation of horticulture clusters and promoting integrated and market-led development of pre-production, production, post-harvest, logistics, branding, and marketing activities.
 - ♦ So far, 55 horticulture clusters have been identified, out of which 12 have been selected for the pilot.
- **Sub-Mission on Agriculture Mechanization (SMAM):** SMAM supports the adoption of mechanization in horticulture for activities like land preparation, planting, harvesting, and post-harvest management to improve efficiency and reduce labor dependency.

Source: IE

GLOBAL TRADE OUTLOOK AND STATISTICS REPORT

Context

- According to the World Trade Organization's (WTO), **Global Trade Outlook and Statistics**, Global goods trade is expected to pick up in 2024 following a contraction in 2023.

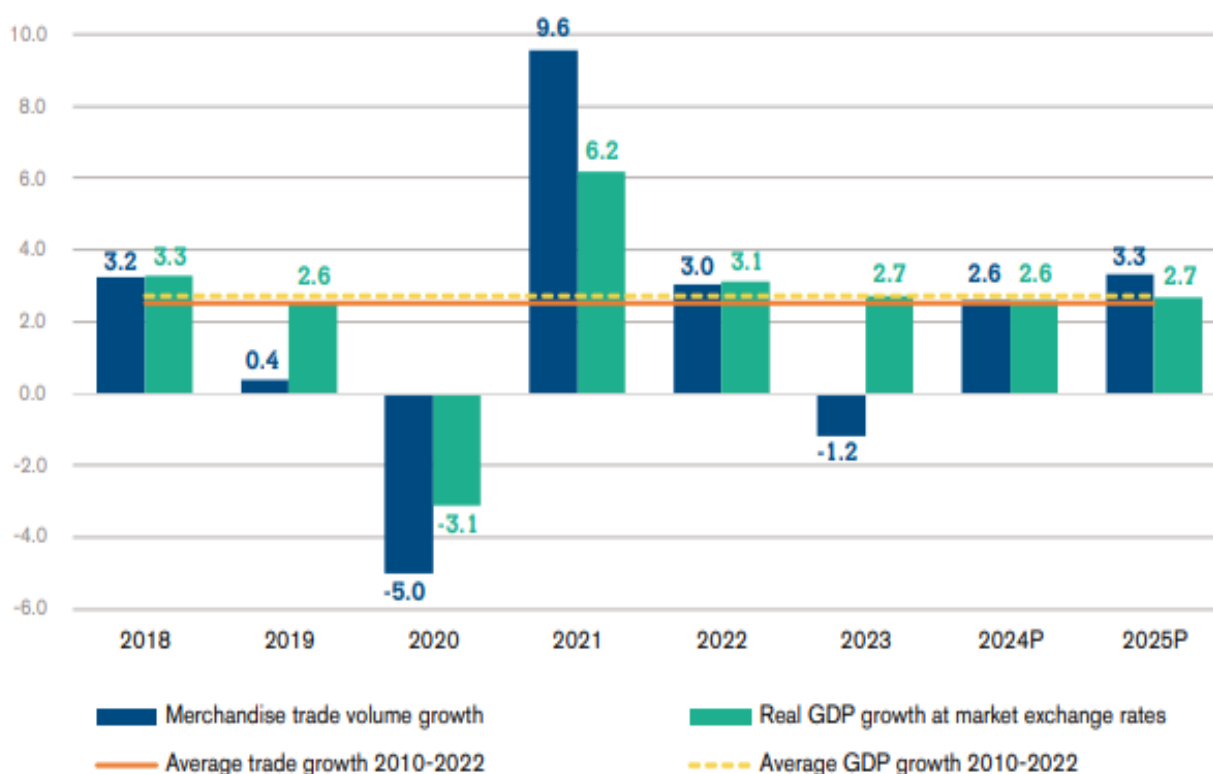
Key Findings

- **World merchandise trade volume** is expected to increase by 2.6% in 2024 and 3.3% in 2025 after a decline of 1.2 per cent in 2023.
- **World real GDP growth** at market exchange rates slowed from 3.1% in 2022 to 2.7% in 2023 but is expected to remain stable over the next two years at 2.6% in 2024 and 2.7% in 2025.

- **The US dollar value of world merchandise trade** fell 5% in 2023 to US\$ 24.01 trillion but this decline was mostly offset by a strong increase in commercial services trade, which rose 9% to US\$ 7.54 trillion.
- **Trade in services:** World commercial services trade grew 9% in 2023 despite a decline in freight transport.

Chart 3: World merchandise trade volume and GDP growth, 2018-2025

Annual % change



Regional trade outlook

- **Africa's exports** will grow faster than those of any other region in 2024, up 5.3%.
- North America (3.6%), the Middle East (3.5%) and Asia (3.4%) should all see moderate export growth. European exports are expected to lag behind those of other regions, with growth of just 1.7%.
- **Merchandise exports of least-developed countries (LDCs)** are forecasted to grow 2.7% in 2024, down from 4.1% in 2023, before growth accelerates to 4.2% in 2025.
- **Imports by LDCs** should grow 6.0 percent this year and 6.8 percent next year following a 3.5% contraction in 2023.

Downside risks

- **Red Sea crisis:** Attacks on commercial ships in the Red Sea and the Gulf of Aden have caused the average number of weekly passages to plunge more than **45%** (264 in 2024, compared to 489 a year earlier).
 - ◆ The monthly volume of shipments through the Suez Canal in metric tons has fallen **54%**.
- **Energy Prices:** Red sea crisis raised concerns about a potential temporary oil shortage in certain regions potentially contributing to additional inflationary pressures.

World Trade Organization (WTO)

- **WTO** is the international organization that deals with the rules of trade between countries.
- **History:** **WTO** was founded in **1995**. It is the successor to the General Agreement on Tariffs and Trade (GATT) established in the wake of the Second World War.
- **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 WTO also provides a forum for countries to negotiate trade rules and settle economic disputes between them.

WTO's Ministerial Conference

- The Ministerial Conference is the WTO's **top decision-making body**. It usually meets 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.

Source: [WTO](#)

EVOLUTION AND ESSENTIALS OF INDIA'S CLIMATE POLICY

Context:

- India's climate policy has evolved significantly over the years, reflecting the country's commitment to addressing the challenges posed by climate change.

The Evolution of India's Climate Policy:

- India's climate change policies have primarily focused on supporting synergies between development and climate outcomes, and it has always been clear, consistent, and coordinated.
- After the **Rio Summit of 1992**, the **Divisions of Climate Change and Biodiversity** in

India's then Ministry of Environment and Forests came to life slowly and steadily.

- ◆ The **Rio Summit of 1992** saw the emergence of the United Nations Framework Convention on Climate Change (**UNFCCC**) and the Convention on Biological Diversity (**CBD**) and **Forest Principles**.

Do You Know?

- India has been a consistently **strong voice of the Global South**: the **CBDR-RC** (Common But Differentiated Responsibilities and Respective Capabilities) principle was developed largely through **Indian interventions** at the **Rio Summit, 1992**.
- India has been clear that the **problem of climate change** is the **result of overexploitation of natural resources** by developed countries.

Consumption by Developed Countries:

- The US accounts for 27% of the world's excess material use, followed by the EU (25%). Other rich countries such as Australia, Canada, Japan, and Saudi Arabia were collectively responsible for 22%.
 - ◆ **High-income countries** with **only 16% of the world's population** are responsible for **74% of excess resource use** over their fair share.
- China has also overshot its sustainability limit by 15% of resource overuse.
- Over the same period, 58 countries representing 3.6 billion people — **including India**, Indonesia, Pakistan, Nigeria, and Bangladesh — stayed within their sustainability limits.
- While India is within the limits of its sustainability, the high-income countries must reduce resource use by ~70% from existing levels to reach the sustainability range.

Major Determinants of India's Climate Policy:

- **Geography:** The Indian landmass has an area of 3.28 million sq km, accounting for 2.4% of the world's geographical

land surface area and 4% of the world's freshwater resources.

- ◆ India is the seventh largest country in the world.
- ◆ It is one of the 17 mega-biodiverse countries, having four biodiversity hotspots, 10 biogeographic zones, and 22 agro-biodiversity hotspots.
- **Population:** India's **1.4 billion people** account for almost **one-sixth of humanity**.
 - ◆ It is home to 7-8% of the world's recorded species, with more than 45,500 species of plants and 91,000 species of animals documented so far.
 - ◆ The **human to land ratio is very low** in India at 0.0021 sq km, and is continuing to recede.
- **Impacts: The Global Climate Risk Index (2020)** prepared by Germanwatch puts **India as the fifth most affected country** in terms of experiencing extreme weather events, a sharp rise from its 14th position in 2017.
 - ◆ **The World Bank** report on the **Impact of Climate Change on South Asia** predicts that rising temperatures and changing monsoon rainfall patterns could cost India 2.8% of its GDP and depress the living standards of nearly half the country's population by 2050.
- **Worldview:** Our worldview is shaped by our ancestors — of living in harmony and consonance with nature.
 - ◆ **The 'Prithvi Sukta'** says that the Earth is our Mother, and sacred groves tell us that the idea of protection of nature and natural resources is seeped in our way of life.
 - ◆ **Gandhi's ideals** of standing up for the last man, trusteeship, and the ability of the Earth to provide enough for everyone's need and not anyone's greed represents a continuous strain of thought since time immemorial.

- **Actions:** The logo of the Ministry of Environment, Forest and Climate Change (MoEFCC) — **'Nature Protects if She is Protected'** — shows our reverence, respect for nature, and our focus towards conserving it.
 - ◆ Despite having historical cumulative emissions of less than 4% (1850-2019) and 1.9 tonnes CO₂ per capita emissions, India has not dissuaded itself from taking resolute domestic and international actions that benefit the planet.

Role of Supreme Court in Climate Policy:

- The Supreme Court of India has recognized the links between ecology, human dignity, and climate change and made important connections between human rights and global warming mitigation.
 - ◆ It stated, *'Without a clean environment which is unimpacted by the vagaries of climate change, the right to life is not fully realised'*.
 - ◆ It noted that the right to a healthy environment, safe from the ill-effects of climate change, was a **'fundamental human right'**.
- The court linked the right against climate change to **Articles 21 (right to life) and 14 (right to equality)**, stating that the **rights to life and equality could not be fully realised without a clean, stable environment**.
 - ◆ It highlighted the **interconnection** between climate change and various human rights, including the right to health, indigenous rights, gender equality, and the right to development.

Conclusion:

- India's climate policy is informed by its vision of inclusive growth for all-round economic and social development, the eradication of poverty, declining carbon

budget, firm adherence to the foundational principles of the UNFCCC, and climate-friendly lifestyles.

- It has created international institutions like the International Solar Alliance (ISA) to focus on the transition to renewable energy, separated carbon emissions from economic growth, Coalition for Disaster Resilient Infrastructure (CDRI) and the Global Biofuels Alliance (GBA).
- As the world grapples with the effects of climate change, India's climate policy will continue to evolve, reflecting the country's commitment to sustainable development and environmental protection.

Source: IE

PARIVARTAN CHINTAN

Context

- The Tri-service Conference, 'Parivartan Chintan', was held in New Delhi.

About

- The 'Chintan' was curated as a brainstorming and idea incubation discussion to generate new and fresh ideas, initiatives and reforms to further

propel Jointness and Integration in the Armed Forces.

- Jointness and Integration are the cornerstones of the **transformation to Joint Structures** which the Indian Armed forces are progressing towards with the intention of being "**Future Ready**".

Theatre Command

- A theatre command deploys elements of the three services i.e. the Indian Army, Indian Navy, and Indian Air Force **under a single, unified command structure**.
- Each command is assigned a **specific geographical region**, combining resources of the three services for operational roles.
- There will be **two land-based commands**—one focused on Pakistan and the other on China—and **a third maritime one**, overseeing the Indian Ocean Region.
 - ♦ The three theatre commands that will be set up first are likely to be located in **Jaipur, Lucknow and Karwar**.
- Creation of theatre commands and their structure has been under discussion for three years now.

TRIDENT CLUSTERS

Facing our traditional adversaries and the Indian Ocean Region, the three theatre commands have us covered

PAKISTAN-CENTRIC WESTERN THEATRE COMMAND

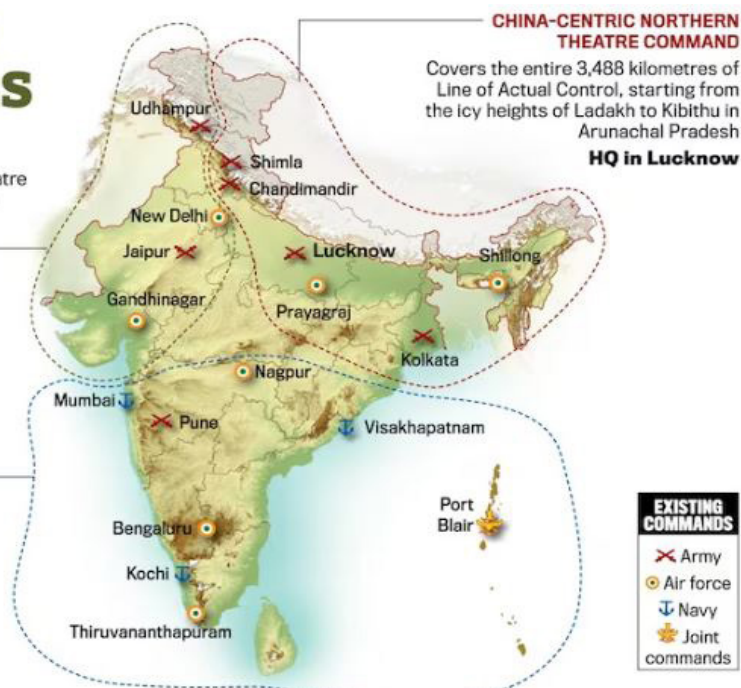
From Indira Col on Saltoro Ridge in the Siachen Glacier to Gujarat

HQ in Jaipur

MARITIME COMMAND

Responsible for India's coastline of 7,516 km, as well as the Indian Ocean Region

HQ in Karwar, Karnataka



Need for the Theatre Command

- **Hostile Neighborhood:** The main threat is from **China**, which works in collaboration with **Pakistan**. A two-front war is, therefore, a distinct possibility for India.
 - ◆ The prospect of high technology, multi-domain warfare where adversaries are **nuclear-armed** requires a swift and dynamic response.
- **Optimal use of Resources:** The forces will be able to pool their resources efficiently, resulting in the optimum utilisation of platforms, weapon systems, and assets.
 - ◆ This will also prevent resources from being allocated for duplicate purchases for the three services.
- **Help in Logistics:** Theatre commands, in the long run, could also improve logistics management in the forces.
- **Better Coordination:** Currently, India's multiple military commands are all located in different geographical areas. This, at times, causes communication hindrances during joint operations and exercises.
 - ◆ With a unified command structure, these communication processes could be simpler and more efficient.
- **In Practice in other Nations:** Armed forces of major military powers, including the United States, the United Kingdom, Russia, China and France all operate under theatre commands.
- **Efficient Planning:** Further, in the realm of policy, having a unified command structure with representatives from all three services will also lead to more efficient planning for both peacetime and wartime strategies.

Challenges in Implementation

- **Difference of opinion among three forces:** There are differences among the three forces on scope, structure, and control of the commands.

- **Transfer of Resources:** There is a contention on the kind of war-fighting equipment that will be deployed under a single command and ambiguity surrounding the transfer of weapons, platforms, and resources from one theatre command to another.
- **Curriculum Framework:** In terms of preparing the educational bedrock for military personnel to serve in theatre commands, the country seems to be behind the curve.
- **Lack of NSS:** Many retired military professionals have criticised implementing theatre commands without having a coherent National Security Strategy (NSS).
 - ◆ Theatre commands will not have a clear blueprint and policy objective to work towards without an NSS.

Conclusion

- India is moving towards implementing its biggest military overhaul, which could be a force multiplier, a few institutional and ideational changes will have to be incorporated to find the correct balance in such a transformation.
- Given the threat India faces on its northern and western borders, integrated theatre commands and the roles assigned will be key in dealing with any future conflict.

Source: PIB

PIEZOELECTRICITY

Context

- The Command Hospital Pune performed two successful piezoelectric bone conduction hearing implants, making it the first government hospital in the country to do the medical operations.

What is Piezoelectricity?

- **Piezoelectric Effect** is the ability of certain materials to generate an electric charge in response to applied mechanical stress.

- **History:** Piezoelectricity was discovered in **1880 by Pierre and Paul-Jacques Curie**, who found that when they compressed certain types of crystals including quartz, tourmaline, and Rochelle salt, along certain axes, a voltage was produced on the surface of the crystal.

Piezoelectric Principle

- **Principle:** This property is the result of their unusual crystal structures. Usually, the charges on atoms in the molecules that make them up are symmetric on two sides of an axis.
- When some stress is applied, the molecule becomes distorted and the asymmetry of charges gives rise to a small electric current.
- Some materials also display an inverse piezoelectric effect, where the application of an electric current induces a mechanical deformation.

Applications

- Both direct and inverse piezoelectric materials are used in **pressure sensors, accelerometers, and acoustic devices** – where their ability to convert mechanical signals into electrical signals is crucial.
- The material is also used in devices such as **microphones, phonograph pickups, and wave filters** in telephone-communications systems.

Source: IE

NEWS IN SHORT

SULTHAN BATHERY

Context

- Kerala BJP Chief demands renaming Sulthan Bathery in Wayanad to Ganapathivattam.

About

- Sulthan Bathery is a municipal town in Wayanad district of Kerala.

- It was earlier known as **Ganapathi Vattam**. The name was after a Ganesha temple built during the **Vijayanagar period**.

- ♦ The temple was constructed by Jains who migrated to Wayanad from areas in present-day Tamil Nadu and Karnataka in the **13th century**.

History of "Sultan Bathery"

- The town's name was changed after Tipu Sultan's invasion of the Malabar region in 1700.
- He used the temple as a battery or store for ammunition and artillery in Ganapathi Vattam.
- This led to the British recording Ganapathi Vattam as "**Tipu Sultan's Battery**", and the name survived as Sulthan Bathery.

Source: IE

CURATIVE PETITION

Context

- Recently, the Supreme Court of India has provided significant relief to the Delhi Metro Rail Corporation (DMRC) by setting aside its 2021 judgement.

About the Curative Petition

- It is a concept that originated in India and is used as a last resort to seek justice from the Supreme Court.
- It is a rare legal remedy for those who believe they have been wronged by the court's decision.

Origin:

- A curative writ jurisdiction as a layer of appeal against a Supreme Court decision is **not prescribed in the Constitution**.
- It is a judicial innovation, designed for correcting 'grave injustices' in a ruling of the country's top court.

- The concept of a curative petition was first introduced by the Supreme Court of India in the case of ***Rupa Ashok Hurra vs Ashok Hurra and Anr (2002)***.

Procedure for Filing:

- A curative jurisdiction **can only be filed after a review plea** has already been dismissed by the Supreme Court.
- It must be first circulated to a Bench of three senior-most judges, and the judges who passed the concerned judgement, if available.
- If the majority of the judges on this Bench agree that the matter needs hearing, then it would be sent to the same Bench (as far as possible) which passed the judgement affecting the petition.

Source: IE

METHANOL

Context

- The United States has recalled several lots of hand sanitisers and aloe gel due to **toxic methanol content**, citing health risks like nausea, coma, and even death.

About

- People who may come in contact with such toxic methanol content hand sanitisers are vulnerable to **several side effects including** “nausea, vomiting, headache, blurred vision, coma, seizures, permanent blindness, permanent damage to the central nervous system, or death.
- Methanol is the **simplest alcohol (CH₃OH)** known as **methyl alcohol**.
- It is a chemical building block for several everyday products, including **plastics, paints, car parts and construction materials**.
- Methanol also is a **clean energy resource** used to fuel cars, trucks, buses, ships, fuel cells, boilers and cook stoves.

Source: LM

ADJUDICATING AUTHORITY UNDER PMLA

Context

- **The Adjudicating Authority** under the **Prevention of Money Laundering Act, 2002 (PMLA)** confirmed the attachment of assets belonging to the Congress party-promoted National Herald newspaper.

About

- The PMLA forms the core of the legal framework to **combat money laundering**. PMLA and the Rules notified there under came into force in **2005**.
- **Section 5 of the PMLA** provides for the **attachment of any property** that is suspected to have been acquired with the proceeds of crime in a case of any offence that is listed in the schedule of the law.
- This provisional attachment order is valid for a period of **180 days**.
- It must be confirmed within this time by an **Adjudicating Authority appointed by the central government**, failing which the property is automatically released from attachment.
 - ◆ Because the initial attachment is provisional, the accused can continue to enjoy the property until the Adjudicating Authority confirms the attachment — **after which the Directorate of Enforcement (ED) has the power to claim possession**.

Source: IE

INVASIVE ALIEN SPECIES

Context

- Recently, it was found that the **Invasive Chital** invaded **Andamans' forest cover**, posing a threat to natural flora and fauna.

About the Invasive Species

- The **Convention on Biological Diversity (CBD)** defines invasive alien species as

'species whose introduction and/or spread outside their natural past or present distribution threatens biological diversity'.

- These include animals, *plants, fungi, and even microorganisms*, and can influence all kinds of ecosystems.

Impact on Ecosystems

- Invasive species act as disruptors in the food chain and disturb the balance of the ecosystem.

The Chital aka Spotted Deer (Axis Axis):

- It is one of the most common species **native to the Indian subcontinent**, and a **key prey species** for tigers in the tropical forests of South Asia.
- IUCN Status (Red List of Threatened Species): **Least Concern**

- In habitats where there is no competition, invasive species can dominate the entire ecosystem.
- For instance, the chital deer, native to mainland India, were introduced to the Andaman Islands by the British in the early 20th century.
 - ◆ Having no natural predators or competitors, and being good swimmers, chital swiftly spread across the Andamans.

Examples of Invasive Species in India

- The list of invasive wildlife in India is dominated by certain species of fish such as the *African catfish, Nile tilapia, red-bellied piranha, and alligator gar*, and *turtle species such as the red-eared slider*.
- The *red-eared slider* (a turtle), native to North America, notoriously edges out local freshwater species, owing to its fast rates of reproduction, and the following competition for food.

Source: IE