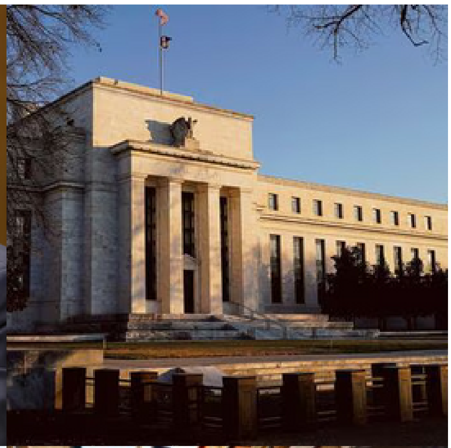
GAGAN

THE DESERVING INDIA

CURRENT AFFAIRS

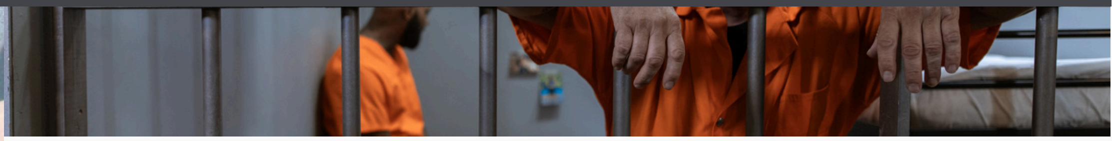
27/05/24 - 01/06/24





TRANSNATIONAL ORGANISED CRIME



Why in News?

Recently, leaders from the Financial Action Task Force (FATF), Interpol, and the United Nations Office on Drugs and Crime (UNODC) stressed the urgent need to crack down on the huge illegal profits made by international criminal organizations.

Additionally, the Indian Cyber Crime Coordination Centre (I4C), part of the Ministry of Home Affairs (MHA), has highlighted the growing danger of cybercrime against Indian citizens.

What is Transnational Organised Crime?

Organised crime involves illegal activities done by groups or networks, often using violence or corruption to make money.

Transnational organised crime (TOC) happens when these activities or groups operate in multiple countries.

Different Forms:

- Money Laundering: Hides the source of illegal money, making it look legal. Globally, over USD 800 billion to USD 2 trillion is laundered each year, which is 2% to 5% of the world's GDP.
- Drug Trafficking: The most profitable criminal activity, worth about USD 650 billion globally, making up 30% of the illicit economy.
- Human Trafficking: Involves exploiting men, women, and children for sex or labor. This crime makes USD 150 billion annually and affects 25 million people worldwide, with 80% in forced labor and 20% in sex trafficking.
- Smuggling of Migrants: A criminal business that illegally moves people across borders. In 2009, it made USD 6.6 billion by smuggling 3 million migrants from Latin America to North America.
- Illicit Firearms Trafficking: Involves illegal trade of weapons, explosives, and ammunition, earning between USD 170 million to USD 320 million yearly.
- Trafficking in Natural Resources: Deals with illegal trade of resources like minerals, wildlife, and fishery products. In 2010, the sale of elephant ivory, rhino horn, and tiger parts in Asia was worth USD 75 million.
- Fraudulent Medicines: Includes fake medicines and those diverted from legal supply chains, which can cause harm or death and lead to drug resistance.
- Cybercrime and Identity Theft: Criminals use the Internet to steal private information, access bank accounts, and commit payment fraud.

What is the Impact of Transnational Organized Crime?

- Global Public Health: Counterfeit medicines, especially common in low- and middle-income countries, can be ineffective or harmful, causing an estimated 1 million deaths per year globally. The World Health Organization (WHO) estimates that these fake or poor-quality medicines result in over 1 million deaths annually, with 200,000 of those deaths occurring in Africa.
- Resilient and Inclusive Global Economy: Money laundering and illicit financial flows harm financial integrity and public finances, hindering economic development. Transnational organized crime (TOC) can deplete foreign exchange reserves and impact asset prices, destabilizing economies. The global offshore economy hides about 10% of the world's wealth, including money from organized crime.
- Planet Health: Organized environmental crime leads to deforestation, biodiversity loss, and increased carbon emissions, contributing to climate change. The illegal production and smuggling of synthetic refrigerants (HFCs) undermine the Montreal Protocol and worsen climate change. A lack of consensus on defining and criminalizing environmental crimes allows criminals to avoid enforcement.
- International Peace and Security: The illegal arms trade supports armed conflicts, violent crime, and other organized criminal activities. Non-state armed groups use illicit markets to fund their activities, including resource extraction and smuggling. In Central and South America, violence related to organized crime often results in more casualties than armed conflicts.
- Local Effects: Transnational organized crime impacts local areas significantly. It can destabilize countries and regions, undermining development efforts. Organized crime groups may collaborate with local criminals, increasing corruption, extortion, racketeering,

,violence, and other sophisticated crimes. This leads to higher public spending on security and policing and weakens human rights standards.

Why is it Crucial to Target Illicit Profits?

Sustainable Development Goals:

- Positive Impact on SDGs: Targeting illicit profits can help achieve the 2030 Sustainable Development Agenda goals like financial stability, inclusive economic growth, and stronger institutions and governance.

Disrupts Criminal Activities:

- Financial Strain on Criminals: Going after illegal profits makes it harder for criminals to fund and maintain their operations.
- Prevents Further Crimes: Cutting off these funds helps stop other illegal activities.

Promotes Rule of Law:

- Crime Doesn't Pay: Confiscating illicit profits reinforces the rule of law and shows that crime is not profitable.

Aids Development Goals:

- Support for Legitimate Purposes: Redirecting illicit funds to legitimate uses can boost economic growth and support development projects.

Enhances Global Security:

- Combating Threats: Money laundering and terrorism financing threaten international peace and security. Targeting illegal profits helps fight these threats.

Safeguards Vulnerable Populations:

- Protection: Criminal activities often exploit vulnerable people. By targeting illicit profits, we can better protect these populations.

International Cooperation:

- Encourages Unity: It promotes global collaboration in fighting transnational organized crime and terrorism financing.

What are the Challenges Regarding Controlling TOC?

Diverse Legal Systems:

- Complications in Combating TOC: Different legal frameworks across countries make international efforts to combat transnational organized crime (TOC) challenging.

Lack of Consensus:

- Global Agreement Issues: Reaching a global consensus on how to address TOC is difficult due to differing national interests and priorities.
- UNTOC Limitations: The UN Convention Against Transnational Organized Crime (UNTOC) is the main legal tool, but its implementation and cooperation regime are often ineffective.
- Fragmented Strategies: The UNODC and other bodies lack a unified strategy, often taking a fragmented approach.
- Informal Solutions: Powerful states often prefer informal, unilateral solutions, which can lack oversight and challenge the rule of law and human rights.

Corruption:

- Undermining Law Enforcement: TOC frequently involves corruption, which infiltrates and weakens law enforcement and governance structures.

Technological Advancements:

- Criminal Use of Technology: Criminals use technology to carry out illicit activities, often staying ahead of law enforcement capabilities.

Armed Conflict:

- Fueling Violence and Instability: In conflict regions, TOC can exacerbate violence and instability, making control efforts more difficult.

- TOC and Terrorism Link: The connection between TOC and terrorism, where criminal profits fund terrorist activities, poses a significant threat.

Way Forward

Blockchain Forensics:

- Track Illicit Cryptocurrency Flows: Use blockchain technology to follow the movement of cryptocurrencies, a growing source of income for TOC.
- Dismantle Money Laundering Networks: Apply advanced tracing methods to identify and break up money laundering operations.

Dark Web Infiltration:

- Specialized Units: Develop teams trained to navigate the dark web, infiltrate online marketplaces used by TOC, and gather vital intelligence.

Transparency Initiatives:

- Promote Transparency: Implement measures to make government institutions more transparent, reducing opportunities for bribery and collusion with TOC.
- Citizen Reporting: Empower citizens to report corruption through secure and anonymous channels.

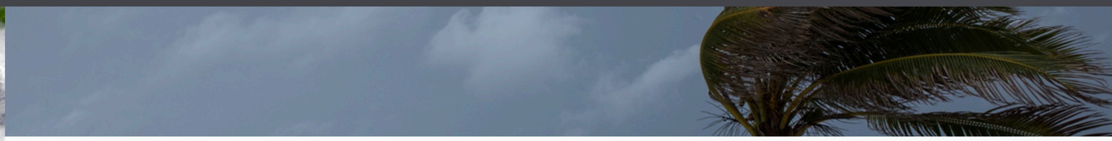
Political Will:

- Comprehensive Understanding: Foster a deep understanding of how TOC and corruption undermine global public goods.
- International Cooperation: Build political will for effective global cooperation through multilateral tools.
- Integrated Strategies: Include strategies to combat TOC in conflict prevention, peace operations, and peacebuilding efforts.
- Holistic Approach: Adopt a comprehensive approach that goes beyond criminal justice, addressing developmental, human rights, and security impacts.

Real-Time Fusion Centers:

- **Immediate Collaboration: Establish centers for real-time collaboration between law enforcement, intelligence agencies, and private sector partners.**
- **Swift Data Analysis: Enable quick analysis of data, identification of trends, and coordinated responses to organized crime activities.**

INFLUENCE OF WIND SHEAR ON HURRICANES



Why in News?

Recently, wind shear has garnered more attention because it plays a critical role in determining whether a storm will intensify into a destructive hurricane.

What is Wind Shear?

Wind Shear:

Wind shear is a meteorological phenomenon where there is a sudden change in wind speed and/or direction over a short distance.

Types:

1. Vertical Wind Shear:
- Description: Wind speed and/or direction changes rapidly with altitude.
- Examples: Low-level jet streams and wind shear associated with thunderstorms.

2. Horizontal Wind Shear:
- Description: Wind speed and/or direction changes rapidly over a horizontal distance.
- Examples: Frontal systems and sea breezes where wind direction may shift suddenly.

Major Causes:

1. Temperature Inversion:
- Description: Occurs on calm nights when warm air near the ground traps cooler air above, creating strong vertical wind shear.
- Impact: Can be hazardous for aircraft during take-off and landing.

2. Thunderstorms:
- Description: Powerful updrafts and downdrafts within thunderstorms cause both horizontal and vertical wind shear.
- Impact: Makes flying near thunderstorms dangerous.

3. Frontal Systems:
- Description: Boundaries between warm and cold air masses (fronts) create rapid changes in wind speed and direction.
- Impact: Results in horizontal wind shear that can challenge aircraft navigation.

Detection Methods:

1. Low-Level Wind Shear Alert System (LLWAS):

- Description: A network of ground-based towers around airports using anemometers and wind direction sensors to measure wind conditions at multiple points.

2. Doppler Radar:
   - Description: Ground-based radars that track wind speed and direction to detect wind shear zones.

3. LIDAR:
   - Description: Uses light to detect wind shear, particularly useful for identifying clear air turbulence.

What are the Effects of Wind Shear on Hurricanes?

About Hurricanes:

- Description: Hurricanes, also known as Tropical Cyclones, are violent storms that form over tropical oceans and can cause extensive damage when they move to coastal areas. They bring strong winds, heavy rainfall, and storm surges.
- Formation: Their formation and initial development depend on the transfer of water vapor and heat from the warm ocean to the air above, primarily through evaporation from the sea surface.

Regional Names:

- Typhoons: China Sea and Pacific Ocean
- Tornados: Guinea lands of West Africa and Southern USA
- Willy-willies: Northwestern Australia
- Tropical Cyclones: Indian Ocean
- Hurricanes: West Indian islands in the Caribbean Sea and Atlantic Ocean

Effects of Wind Shear on Hurricanes:

- Favorable Conditions: Hurricanes thrive with minimal vertical wind shear, which allows for a symmetrical structure and efficient rotation.

- Disruptive Effects: Strong vertical wind shear can disrupt a hurricane's vertical structure by offsetting the storm's top from its bottom. This weakens the hurricane's wind circulation, heat transport, and moisture supply.
- Destructive Impact: Excessive vertical wind shear can potentially tear a hurricane apart.

Other Factors Affecting Hurricane Intensity:

- Beyond Wind Shear: While vertical wind shear is significant, other factors also influence hurricane intensity, including sea surface temperatures, atmospheric moisture, and pressure systems.
- Warm Sea Surface Temperatures: Exceptionally warm sea surface temperatures can sometimes counteract the effects of increased wind shear, as seen during the 2023 hurricane season.

What is the Influence of EL Nino and La Lina on Wind Shear?

El Nino's Influence on Wind Shear:

- Stronger Wind Shear: During El Nino years, stronger-than-usual vertical wind shear is typically observed over the Atlantic Ocean during hurricane season.
- Sea Surface Temperatures: El Nino events are characterized by warmer sea surface temperatures in the eastern Pacific Ocean and cooler temperatures in the western Pacific.
- Upper-Level Winds: This temperature pattern leads to stronger upper-level winds over the Atlantic, resulting in increased vertical wind shear.
- Hurricane Development: The increased wind shear during El Nino years can make it more challenging for hurricanes to develop and intensify in the Atlantic basin.

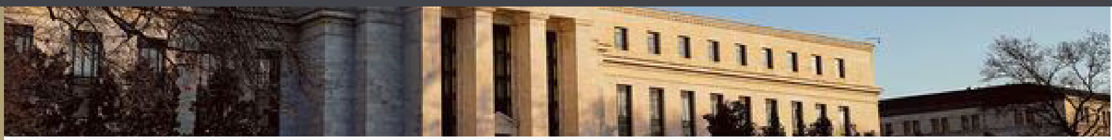
La Nina's Influence on Wind Shear:

Weaker Wind Shear: La Nina conditions, which are the opposite of

El Nino, tend to be more favourable for hurricane development in the Atlantic.

- **Favourable Conditions: During La Nina years, vertical wind shear is generally weaker over the Atlantic, allowing for more active hurricane seasons.**
- **Record-Breaking Season: The record-breaking 2020 Atlantic hurricane season occurred during a La Nina event.**

US FEDERAL RESERVE KEEPS RATES STEADY AS INFLATION PERSISTS



Why in News?

Recently, the US Federal Reserve kept interest rates in a target range of 5.25%-5.5% and signalled that borrowing costs will likely remain high. The annual inflation rate in the US is currently 3.5%, while it is 3.2% in the UK and 2.4% in the eurozone.

What are the Reasons Behind the Recent US Federal Reserve Decision?

Inflationary Pressures:

- Peak Rates: The US inflation rate peaked at 7.0% in 2021 and 6.5% in 2022.
- Current Rate: Despite declining at the end of 2023, it remains high at 3.5%, well above the US Fed's target of 2%.
- Persistent Inflation: This persistent inflation indicates that previous measures, such as raising interest rates, have not reduced inflation as quickly as hoped.

The Wait-and-See Approach:

Revised Projections: Earlier this year, the Fed anticipated a decline in inflation and projected rate cuts. However, the current situation has forced them to reconsider.

Holding Rates: By maintaining the current rates, the US Fed is buying time to gather more data.

Monitoring Data: The Fed will closely monitor inflation metrics, employment figures, and consumer spending patterns.

Future Decisions: This data will guide future decisions on whether to raise rates further to combat inflation or leave them unchanged to support economic growth.

How do US Fed Rates Impact the Indian Economy?

Capital Outflows:

- Attractive US Assets: The Fed's rate hikes make US dollar-denominated assets more attractive, triggering a "carry trade."
- Capital Flight: Investors borrow money in low-interest-rate countries like India and invest it in the US for higher returns, causing capital outflow from these countries.
- Economic Growth Slowdown: Reduced foreign investment can hinder the growth of Indian companies and the overall economy.
- Stock Market Impact: Sudden withdrawal of foreign investment can lead to stock market volatility and decreased valuations.

Inflation:

- Exchange Rate Effects: Changes in US Fed rates affect capital flows and exchange rates, potentially leading to inflation.
- RBI Measures: The Reserve Bank of India (RBI) can adjust domestic interest rates and liquidity measures to mitigate inflationary impacts of a weaker rupee.

Weaker Rupee:

Capital Outflow Consequence: When foreign investors withdraw its funds from India due to higher US returns, it reduces the USD supply in India and increases the INR supply, weakening the rupee.

- Imported Inflation: A weaker rupee makes imports more expensive, particularly crucial resources like oil, increasing the overall cost of living.
- Export Boost: A weaker rupee can make Indian exports cheaper globally, potentially boosting their competitiveness.

Higher Borrowing Costs:

- RBI Interest Rate Hikes: To match the Fed's move, the RBI might raise interest rates in India to:
- Control Inflation: Higher interest rates discourage borrowing and spending, potentially curbing inflation.
- Stem Capital Flight: Making domestic investments more attractive to prevent further capital outflow.

Stock Market Fluctuations:

- Reduced Foreign Investment: As investors seek higher US returns, the Indian stock market might experience:
- Decreased Demand: Lower demand for Indian stocks due to reduced foreign investment can cause a decline in stock prices.

Increased Debt Burden:

- Costlier External Debt: A weaker rupee makes it more expensive for India to service its external debt, which is mostly in US dollars.
- Strain on Public Finances: The government may need to allocate more funds to debt repayment, affecting other developmental plans.

Benefits for Banks:

- Interest Rate Rise Advantage: Banks benefit from rising interest rates as they can re-price their loan portfolios faster than deposit rates, increasing their net interest margin.

How can India Reduce the Impact of the US Federal Reserve Decisions on its Economy?

Balancing Interest Rates:

Raising Rates:

- Attract Foreign Investment: Higher interest rates can make Indian investments more appealing to foreign investors, potentially boosting demand for the rupee and stabilizing its value.
- Control Inflation: Increased rates can discourage borrowing and spending, aiding in inflation control, especially when coupled with a depreciating rupee.

Diversifying the Reserve Basket:

Reducing Dollar Dependence: India can diversify its foreign exchange reserves by increasing holdings of other major currencies like the Euro, Yen, or Yuan, reducing vulnerability to US dollar fluctuations. However, managing a diversified basket can be complex.

Expanding Trade Horizons:

- Exploring Export Markets: Identifying new export markets can diversify India's trade base and reduce reliance on US markets.
- Trade Agreements: Negotiating bilateral trade deals can reduce trade barriers and enhance trade flows with non-US countries, diminishing dependence on the US Dollar.

Stimulating Domestic Consumption:

- Boosting Demand: Tax cuts can increase disposable income, stimulating spending. Initiatives like increased tax rebates for lower-income earners can encourage consumption.
- Subsidies: Targeted subsidies for essentials can maintain purchasing power. Programs like the Public Distribution System (PDS) and Pradhan Mantri Ujjwala Yojana (PMUY) provide examples.

Reducing Reliance on Oil:

- **Embracing Renewables: Investing in renewable energy sources like solar and wind can reduce reliance on imported oil and buffer against oil price fluctuations.**
- **Exploring Biofuels: Developing biofuels such as ethanol can offer an alternative fuel source, further reducing dependence on imported oil.**

INDIAN NAVY SHEDS COLONIAL LEGACY

Why in News?

The Indian Navy has recently made important changes to break away from its British colonial past by renaming old naval symbols and creating new ones.

This change highlights India's efforts to reshape its naval identity to better reflect its own heritage and goals.

What are the Recent Changes in Nomenclature?

- New Names: To promote national pride, the Indian Navy has renamed the 'Jack' to the 'National Flag' and the 'Jackstaff' to the 'National Flag Staff'.
- Old Terms: The terms 'Jack' and 'Jackstaff' come from British naval history and are used by many navies, including India's. 'Jack' refers to a flag, and the 'Jackstaff' is the pole at the front of a ship where the flag is flown.
- Official Changes: This renaming was made official by changing the "Regulations for the Navy (Ceremonial, Conditions and Service and Miscellaneous Regulation) 1963", using the authority of the Naval Act of 1957.

What are Other Symbolic Changes Across the Armed Forces?

Changes in Naval Insignia: In September 2022, the Indian Navy introduced a new naval ensign. They replaced the British-inspired George's Cross with a design featuring a blue octagon with twin golden borders, the national emblem, and the motto ‘Satyamev Jayate’. This new design is inspired by the seal of Shivaji Maharaj and represents the Navy's presence in all eight directions (north, south, east, west, and the four intercardinal points).

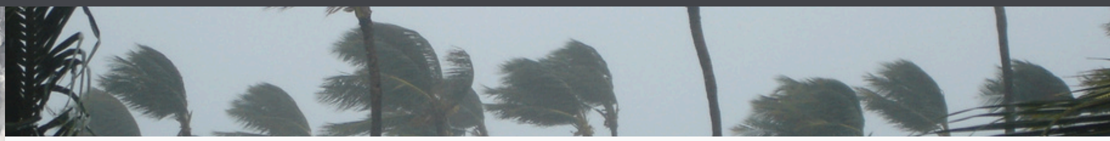
Change in Epaulettes of Naval Officers: The Indian Navy also revealed new epaulettes for senior officers, inspired by Chhatrapati Shivaji Maharaj's seal. These new epaulettes symbolize a move away from colonial influences and a celebration of India's maritime heritage. The design includes five changes from the previous version for the navy chief, vice admirals, and rear admirals.

Naval Dress Code Update: The Indian Navy is now wearing Kurta-Pyjama in their messes, honouring their culture. Senior officers are leading by example in this change.

Changes in Indian Army: Traditional practices like using horse-drawn buggies and pipe bands are being phased out from events and ceremonies.

Why it Matters: Renaming and redesigning naval symbols show India's move away from colonial ties and emphasize its sovereignty and maritime heritage. These actions support the Prime Minister's vision for India's progress by its 100th year of independence.

CYCLONE REMAL



Why in News?

The India Meteorological Department (IMD) has warned about a severe cyclonic storm named Cyclone Remal, which might hit the coasts of West Bengal and Bangladesh.

What are the Key Insights About Cyclone Remal?

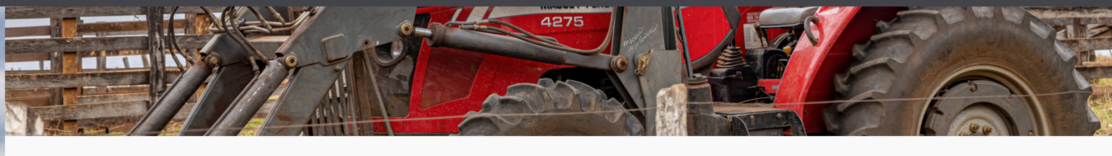
Naming: The name 'Remal' for this tropical cyclone comes from Oman. It's the first cyclone expected to hit the region during the pre-monsoon season of 2024. 'Remal' means 'sand' in Arabic.

Factors Behind Formation: A depression, an area of low pressure with circulating winds and atmospheric instability, has developed in the central Bay of Bengal, giving birth to Cyclone Remal. The Bay of Bengal's warmer-than-average water temperatures, about 2–3°C higher, provide the energy necessary for cyclones to develop and strengthen. Additionally, the Madden Julian Oscillation, a band of clouds moving eastward, combined with winds and warm ocean waters, is currently south of the Bay of Bengal. These winds contribute to cyclone initiation due to their rotational effect.

Potential Impact: If Cyclone Remal makes landfall on the Indian coast and coincides with high tide, it could affect the Sundarbans region, potentially causing partial damage to its delicate ecosystem. The shallow depth of the water and the funnel-shaped geography of the northern Bay of Bengal can amplify the cyclone's intensity as it nears the coast, raising the risk of storm surges and flooding.

Previous Cyclones: The threat of Cyclone Remal is reminiscent of past devastating cyclones, such as Yaas (2021), Amphan (2020), Cyclone Fani (2019), and Aila (2009), which caused significant damage in the Sundarbans and other parts of West Bengal. State disaster management authorities and local communities are leveraging the lessons learned from these past experiences to better prepare for and mitigate the potential impact of Cyclone Remal.

CSIR PRIMA ET11AND SIMPLIFIED TRACTOR TESTING PROCESS



Why in News?

CSIR's Central Mechanical Engineering Research Institute (CSIR-CMERI) has created a compact, 100% Pure Electric Tractor called CSIR PRIMA ET11. This tractor is specifically designed to assist small and marginal farmers in India.
Furthermore, the government has taken a significant step to promote Ease of Doing Business and foster trust-based governance by streamlining the process for testing tractor performance evaluation.

What are the Important Features of CSIR PRIMA ET11?

The introduction of the CSIR PRIMA ET11, a 100% Pure Electric Tractor, highlights India's dedication to sustainable agriculture. This tractor is entirely made with indigenous components and technologies to meet the demands of agricultural field applications.

- Features: The technology behind this tractor is designed to be user-friendly, with a focus on making it convenient and easy to use, especially for women. It comes with a special port called V2L (vehicle to load), which means that when the tractor is not in use, its battery power can be used for other purposes like pumps and irrigation.
- Significance: Traditional tractors run on diesel, contributing significantly to environmental pollution. They consume about 7.4% of the country's annual diesel usage and account for 60% of total agricultural fuel usage. Additionally, their emissions of PM2.5 and NOx are expected to rise 4-5 times in the next two decades. As part of the global strategy to reduce carbon footprints, transitioning this sector to electrification is crucial. Electrifying tractors is a necessary step toward helping India achieve its climate-related targets.

What is the Simplified Procedure for Tractor Testing?

- Tractor manufacturers can now participate in the subsidy scheme by providing CMVR/Conformity of Production (COP) certificates and a self-declaration confirming that the tractor meets the benchmark specifications set by the Department of Agriculture & Farmers' Welfare.
- Manufacturers must offer a minimum three-year warranty on subsidized tractors.
- The tractor testing process will include mandatory tests such as Drawbar Performance Test, PTO Performance Test, Hydraulic Performance Test, and Brake Performance Test. These tests will be conducted at approved facilities like Central Farm Machinery Training and Testing Institute (CFMTTI), Mahindra Research Valley (MRV), government authorized institutes, or the manufacturer's own facilities.
- The Brake Performance Test will adhere to the requirements outlined in the Central Motor Vehicles Rules (CMVR).

MICROPLASTICS

Why in News?

A recent study found that microplastics, mainly polyethylene and PVC, are commonly found in the testicles of humans and dogs. This might be linked to lower sperm counts.

What are Microplastics?

About Microplastics

Microplastics are plastics smaller than five millimeters. They can harm oceans and aquatic life. Sunlight, wind, currents, and other natural forces break down larger plastics into these tiny particles. Microplastics are particles smaller than 5 mm, while nanoplastics are even smaller, under 100 nm.

- Classification
- Primary Microplastics: These are tiny particles made for commercial use, including microfibers from clothing and textiles. Examples are microbeads in personal care products, plastic pellets, and plastic fibers.
- Secondary Microplastics: These come from the breakdown of larger plastics, like water bottles, due to environmental factors such as sunlight and ocean waves.

Applications of Microplastics

- Medical and Pharmaceutical Uses: Utilized in targeted drug delivery because they can effectively absorb and release chemicals.
- Industrial Applications: Employed in air-blasting technology for cleaning machinery and in making synthetic textiles.
- Cosmetics and Personal Care Products: Used as exfoliating agents in facial scrubs, toothpaste, and other personal care items.

What are the Current Developments Regarding Microplastics?

- Microplastics in Testicular Tissues
- A study found mean total microplastic levels of 122.63 µg/g in dogs and 328.44 µg/g in humans, with polyethylene (PE) being the most common type. This raises concerns about potential impacts on human reproductive health, such as declining sperm counts.

Global Plastic Overshoot Day (POD)

- In 2024, POD is expected to be on September 5th, indicating the point when plastic waste generation surpasses the world's capacity to manage it. By the end of 2024, 217 countries are projected to release over 3 million tonnes of microplastics into waterways, with China and India being the largest contributors.

Microplastics in Drinking Water

- A review of 50 studies on microplastics in drinking water and freshwater sources emphasized the need for standardized sampling and analysis methods. Only four studies met all the quality criteria.

Microplastic Contamination in Ashtamudi Lake

- Significant microplastic pollution was found in Ashtamudi Lake, a Ramsar wetland. Microplastics were detected in fish, shellfish, sediment, and water. Hazardous heavy metals like molybdenum, iron, and barium in these microplastics pose risks to aquatic organisms and humans who consume contaminated fish and shellfish.

What are the Challenges Related to Microplastics?

- Environmental Challenges
- Persistence and Spread: Microplastics persist in the environment for a long time and can travel great distances due to their small size, making them common pollutants everywhere.
- Threat to Wildlife: Marine organisms often ingest microplastics, leading to the accumulation of toxic chemicals in their bodies.

Health Challenges

- Human Exposure: People are exposed to microplastics through eating, breathing, and skin contact. Microplastics have been found in human tissues, such as the placenta, and can cause health problems like oxidative stress, DNA damage, organ dysfunction, and metabolic disorders.

Regulatory and Policy Challenges

- Inconsistent Regulations: Although some countries have banned microbeads, there is no global regulation for all microplastic sources. Inconsistent monitoring makes it difficult to control pollution.

- Enforcement Issues: Effective enforcement of existing regulations is hindered by limited resources, inadequate infrastructure, and lack of public awareness.

Detection and Analysis Challenges

- Complex Detection: Detecting and measuring microplastics in environmental samples is difficult due to their varied properties.

Way Forward

- Scientific Research and Monitoring
- Biodegradable Plastics: Promoting biodegradable plastics can reduce the persistence of microplastics in the environment.

- Filtration Systems: Wastewater treatment plants and devices to capture microplastics from stormwater runoff can help reduce the amount of microplastics entering aquatic environments.

- Advanced Techniques: Techniques like Fourier-transform infrared spectroscopy (FTIR), Raman spectroscopy, and mass spectrometry are used to detect microplastics but need further refinement for better accuracy and reliability.

Regulatory Measures

- Bans on Plastics: Implementing bans on single-use plastics and microbeads in personal care products can significantly reduce primary microplastics in the environment. The European Union's REACH regulation is an example.

- Extended Producer Responsibility (EPR): EPR schemes make producers responsible for the entire lifecycle of their products, encouraging the design of more sustainable products and reducing plastic waste.

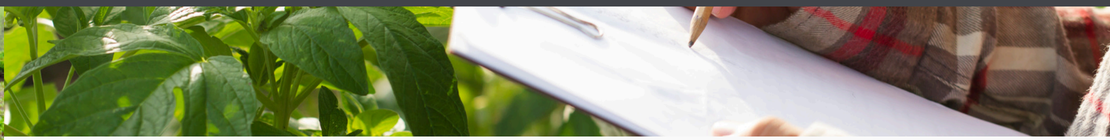
- Innovative Ways to Deal with Microplastics
- Biodegradable Silk: Researchers at MIT have developed a silk-based system that can replace microplastics in various applications, such as agricultural products, paints, and cosmetics.

- **Plant-Based Filters: Filters made of tannins and wood dust can trap up to 99.9% of microplastics in water.**

- **Natural Fiber Textiles: These textiles do not release microplastics during washing and are biodegradable under the right conditions, offering a sustainable alternative to synthetic fibers like polyester and nylon.**

- **Public Awareness and Education**
- **Education: Incorporating information about microplastics and their impacts into school curricula can educate the next generation about reducing plastic pollution and adopting sustainable practices.**

NEED FOR NEW AGRICULTURE EXPORT-IMPORT POLICY



Why in News?

Agricultural Export and Import Trends in India
Recent data from the Department of Commerce shows that India's agricultural exports decreased by 8.2% in 2023-24, mainly due to government restrictions on various commodities. At the same time, agricultural imports fell by 7.9%, driven by lower edible oil prices.

Need for a Balanced Policy

These trends highlight the necessity for a balanced agriculture export-import policy to stabilize the agricultural sector. Such a policy should ensure sufficient domestic availability while also promoting market growth.

What is the Current State of Indian Agricultural Exports and Imports?

Agricultural Exports

In the fiscal year 2023-24, India's agricultural exports fell by 8.2% to USD 48.82 billion, down from a record USD 53.15 billion in 2022-23.

Declined Commodities

Sugar Exports: Sugar exports were halted in October 2023, leading to a decrease from USD 5.77 billion in 2022-23 to USD 2.82 billion in 2023-24.

Non-Basmati Rice Exports: A ban on all white non-basmati rice exports was imposed in July 2023 due to concerns over domestic availability and food inflation. Only parboiled grain shipments are allowed, with a 20% duty. This reduced exports from USD 6.36 billion in 2022-23 to USD 4.57 billion in 2023-24.

Wheat Exports: Exports ceased in May 2022, dropping to USD 56.74 million in 2023-24 from USD 2.12 billion in 2021-22.

Onion Exports: The ban on onion exports was lifted in May 2024, but a floor price of USD 550 per tonne and a 40% duty were imposed. Exports were 17.08 lakh tonnes (USD 467.83 million) during April-February 2023-24, down from 25.25 lakh tonnes (USD 561.38 million) in 2022-23.

Growth in Other Commodities

Basmati Rice and Spices: Exports increased, with basmati rice reaching USD 5.84 billion and spices exceeding USD 4 billion for the first time.

Marine Products, Castor Oil, and Other Cereals: These also saw growth, contributing positively to the overall export basket.

Agricultural Imports

India's agricultural imports fell by 7.9% in 2023-24, influenced by global market conditions and domestic demand.

Reduced Edible Oil Imports

The import bill for vegetable fats was USD 20 billion in 2022-23 due to high global prices post-Russia-Ukraine war.

In 2023-24, the FAO vegetable oil sub-index decreased to 123.4 points, reflecting lower global prices. Consequently, the vegetable oil import bill dropped to below USD 15 billion.

Surge in Pulse Imports

- Pulse imports nearly doubled to USD 3.75 billion in 2023-24, the highest since the levels of USD 3.90 billion in 2015-16 and USD 4.24 billion in 2016-17. This surge indicates ongoing dependence on foreign sources to meet domestic demand.

These trends underline the need for a balanced agriculture export-import policy to stabilize the agricultural sector, ensuring sufficient domestic availability and fostering market growth.

What are the Key Factors Influencing India's Agricultural Exports and Imports?

Export Restrictions

The Indian government has imposed restrictions on the export of key commodities such as rice, wheat, sugar, and onions due to concerns over domestic availability and food inflation. These restrictions have led to a significant decline in the exports of these commodities.

Global Price Movements

- FAO Food Price Index: The FAO food price index (base: 2014-16=100) is used to track global agri-commodity prices.
- 2013-14 to 2019-20: The index dipped from an average of 119.1 points in 2013-14 to 96.5 points, reflecting a crash in global agri-commodity prices. This crash reduced the cost competitiveness of India's agricultural exports.
- 2022-23: Following the Covid-19 pandemic and the Russia-Ukraine war, the index soared to 140.8 points, leading to record highs in India's farm exports and imports.

- 2023-24: The index eased to 121.6 points, while the vegetable oil sub-index fell to 123.4 points, resulting in a decline in India's edible oil import bill.

Government Policies

The government's decision to maintain low or zero import duties on pulses and edible oils contradicts its goal of boosting domestic production. This policy favors imports over domestic cultivation, potentially discouraging farmers from diversifying crops. In the long run, this undermines agricultural development and self-sufficiency.

These factors highlight the need for a balanced agricultural export-import policy. Such a policy should stabilize the agricultural sector, ensure domestic availability, support market growth, and encourage domestic production and diversification.

What is Agricultural Export Policy?

About Agricultural Export Policy

An agricultural export policy consists of government rules, actions, and incentives aimed at regulating and boosting the export of agricultural goods from a nation. This policy includes export subsidies, tariff reductions, quality standards, market access agreements, financial incentives, and trade promotion initiatives to help agricultural producers and exporters access international markets and enhance their competitiveness.

India’s Agriculture Export Policy, 2018

In December 2018, the Indian government implemented a comprehensive agriculture export policy to leverage India's agricultural export potential. The goal was to establish India as a leading force in global agriculture and increase farmers' incomes.

Objective

- Export Growth: The policy aimed to double agricultural exports from over USD 30 billion to more than USD 60 billion by 2022.
- Farmer Benefits: Expected to provide farmers with export opportunities in the overseas market.
- Promotion of Diverse Products: Encouraged exports of ethnic, organic, traditional, and non-traditional agricultural products.
- Monitoring Framework: Established to oversee the implementation of the Agricultural Exports Policy.

Elements

Strategic:

Policy Measures: Implementing comprehensive policy measures.

- Infrastructure and Logistics: Enhancing infrastructure and logistics for better export facilitation.
- State Involvement: Encouraging greater involvement of state governments in agricultural exports.

Operational:

- Focus on Clusters: Developing export-oriented clusters.
- Value-Added Exports: Promoting value-added agricultural exports.
- Marketing and Promotion: Enhancing the "Brand India" initiative.
- Private Investments: Attracting private investments into production and processing.
- Quality Regime: Establishing a strong quality regime.
- Research & Development: Promoting research and development in agriculture to support export growth.

What are the Challenges to the Agri-Export Policy of India?

Policy Instability and Double Standards

Frequent changes in export policies, often intended to protect domestic consumers from price hikes, can negatively impact farmers and traders.

Sudden bans and restrictions on commodities like wheat and onions disrupt market stability and long-term trade relationships.

Conflicting Goals

The government's reduced import duties on pulses and low tariffs on edible oils aim to ensure consumer affordability. However, these measures conflict with the goal of promoting domestic crop diversification to less water-intensive and import-substituting crops.

Subsidy-Centric Schemes

Populist measures during election seasons, such as increased consumer food and farmer fertilizer subsidies, loan waivers, and free power, are politically popular but undermine fiscal discipline and the agricultural sector's financial health.

Inadequate R&D Investment

India's investment in agricultural research and development (R&D) is around 0.5% of its agricultural GDP, which is insufficient for substantial growth. This investment needs to be doubled or tripled to enhance production and exports.

Quality and Standards

Ensuring consistent quality and compliance with international sanitary and phytosanitary (SPS) standards is a significant challenge for Indian agricultural exports due to issues like pests and diseases.

Competitiveness

India faces competition in pricing and quality in its agricultural exports. Additionally, exchange rate fluctuations influence competitiveness, affecting export performance.

To address these issues, India needs a stable and coherent agricultural export policy that aligns with domestic goals, boosts investment in R&D, ensures quality compliance, and enhances competitiveness in the global market.

What are the Steps Ahead for a Stable Agri-Export Policy in India?

Balancing Interests and Long-Term Goals

Economists recommend adopting more predictable and rules-based policies, such as temporary tariffs, to manage exports without sudden shocks, ensuring stability and predictability in the agricultural sector.

Strategic Buffer Stocks and Market Intervention

Maintaining buffer stocks of essential commodities helps mitigate price volatility and ensures market stability. This approach allows for controlled and less disruptive market interventions, preventing sudden policy shifts that can destabilize agriculture.

Farmer's Welfare

Prioritizing the welfare of farmers ensures they receive fair prices for their produce, directly benefiting the farming community. Agricultural export success should translate into improved livelihoods for farmers.

Support for Domestic Consumers

To ensure food security, policy support is necessary for domestic consumers, particularly vulnerable sections of society. A domestic income policy can help support these consumers while maintaining affordability.

Productivity Enhancement

Increasing agricultural productivity while maintaining quality is crucial for competitiveness. This requires investments in research and development, seeds, irrigation, fertilizers, and better farming practices.

Diversify Export Basket

Diversifying the basket of agricultural exports, focusing on value-added products, and reducing reliance on a few commodities can enhance resilience and open opportunities in various international markets.

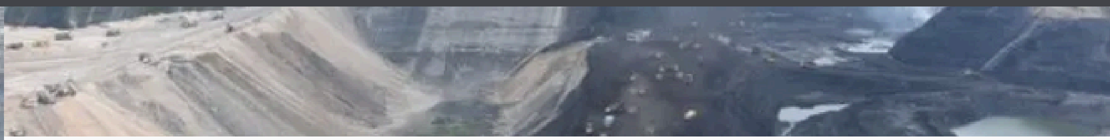
Infrastructure Development

Investing in modern infrastructure, including cold storage, processing facilities, transportation, and logistics, can reduce post-harvest losses and enhance export competitiveness.

International Best Practices

Strengthening diplomatic efforts to negotiate favourable trade agreements and reduce trade barriers can improve access to international markets. Learning from successful agricultural export policies and best practices in countries like the Netherlands and the United States can provide valuable insights for India's agricultural sector.

INDIA'S CRITICAL MINERAL ACQUISITION PLANS IN AFRICA



Why in News?

India is intensifying its efforts to acquire critical minerals in Africa, aiming to challenge China's dominant position in the region.

The competition for critical minerals is a primary focus, and India is actively securing mining partnerships and access agreements with various African countries.

Why is India Stepping Up its Critical Mineral Acquisition Plans in Africa?

Resource Securitisation

Ensure a stable supply of critical minerals for India's industries, especially the growing electric vehicle and renewable energy sectors.

Reduce dependence on imports and mitigate potential supply chain disruptions.

Support India's drive towards self-reliance and strategic autonomy in critical sectors.

Countering China's Dominance-
China controls a significant portion of cobalt processing facilities in the Democratic Republic of Congo (DRC) and has substantial investments in lithium resources in Zimbabwe.
India aims to establish a stronger presence in the African mining sector to counterbalance China's influence.

Access to High-Quality Reserves
Africa holds substantial reserves of critical minerals like cobalt, copper, lithium, and rare earth elements, presenting an opportunity for India to acquire access to economically viable deposits to meet its growing demand.
Leverage Africa's mineral wealth to support India's industrial and technological aspirations.

Strengthening Bilateral Ties
India is engaging in government-to-government (G2G) negotiations to secure mining collaborations and access agreements with African nations.
Signed MoUs with several African countries, including South Africa, Mozambique, Congo, Tanzania, Zambia, Malawi, Cote d'Ivoire, and Zimbabwe, to build stronger diplomatic and economic ties.

Potential Investments
A Confederation of Indian Industry (CII) report predicts that Indian investments in Africa could reach USD 150 billion by 2030, noting that India has already invested USD 74 billion in the region since April 1996.

What are India's Other Overseas Critical Mineral Acquisition Plans?

Khanij Bidesh India Ltd (KABIL)
Joint venture of National Aluminium Company Ltd (NALCO), Hindustan Copper Ltd (HCL), and Mineral Exploration and Consultancy Ltd (MECL).

Aims to source and process strategic minerals from foreign sources, focusing on battery minerals for supply in India.

Coal India Limited (CIL)
Targeting acquisition of lithium, cobalt, and nickel assets abroad to diversify beyond coal.
Amended its Memorandum of Association to include non-ferrous and critical minerals.

Minerals Security Partnership (MSP)
India joined MSP in June 2023, becoming the 14th member alongside countries like the US, Australia, and Canada.
Aims to aid Indian PSUs in acquiring critical mineral assets abroad, ensuring reliable supply chains through collaboration between governments and industry.
Supply Chain Resilience Initiative (SCRI)
Collaboration with Australia and Japan to ensure supply chain resilience for critical minerals.

Australian Partnership
Signed Critical Minerals Investment Partnership with Australia to invest in critical minerals projects.

Global Collaborations
Collaborating with countries like Chile, Argentina, and Bolivia known for significant lithium resources.
In talks with Sri Lanka to acquire a graphite mine block, crucial for battery manufacturing. Sri Lankan graphite is among the purest globally, with over 98% carbon content.

What Initiatives have Prompted India to Secure Critical Minerals?

Panchamrit Vision

India's commitment to climate change mitigation includes:

- **Growing non-fossil fuel energy capacity to 500 GW by 2030.**
- **Achieving Net Zero emissions by 2070.**

Strategic Initiatives

Planning Commission (2011): Emphasized the need for strategic mineral resources.

Expert Committee (2019): Focused on cobalt and lithium sourcing from Australia, Argentina, and Bolivia.

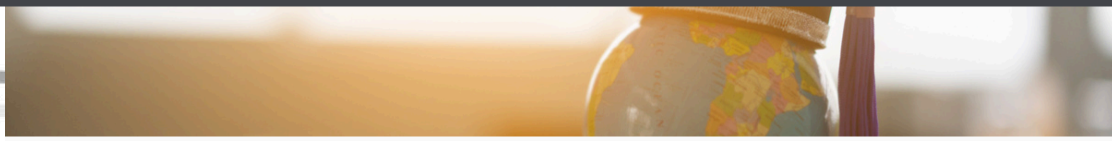
Geological Survey of India (GSI): Utilizing advanced exploration techniques to find new resources.

Legislative Amendments

- **MMDR Amendment Act, 2023: Strengthens exploration and extraction of critical minerals essential for India's economic development and national security.**

- **Offshore Area Minerals (Development and Regulations) Amendment Act, 2023: Regulates mining of minerals in India's maritime zones, categorizing activities into reconnaissance, exploration, and production.**

HYPER POLITICISATION OF INDIAN HIGHER EDUCATION



Why in News?

Indian higher education has always been linked to politics. Recently, this connection has grown stronger, affecting many parts of academic life and the honesty of institutions.

How have Politics Shaped Indian Higher Education?

- Political Foundations: Indian colleges and universities have often been started by politicians to help their careers.
- Electorate Demands: Many schools were built to meet the needs of the local people, reflecting India's diverse society. Governments have placed schools in areas that would help them politically, addressing cultural and social needs.

- Naming and Renaming: Universities are often named or renamed for political reasons. For example, Uttar Pradesh Technical University (UPTU) in Lucknow has had its name changed several times by the state government.
- Appointments and Promotions: Sometimes, political influence affects who gets academic jobs and promotions, instead of basing decisions on qualifications and merit. Some states oppose state governors being appointed as chancellors of state universities.
- Academic Freedom: Universities usually follow international standards for academic freedom, allowing professors to teach and publish freely. However, self-censorship is increasing, especially in the social sciences and humanities, with some academics facing consequences for publishing controversial work.

What are the Consequences of Hyper politicisation of Education?

Reduced Academic Freedom: Political influence is raising concerns about undermining academic freedom, with faculty and students potentially feeling pressured to conform to political ideologies. For example, Liz Magill, president of the University of Pennsylvania, resigned under pressure related to her stance on antisemitism on campus.
Global Reputation: A politicized academic environment may deter talented students and faculty from joining Indian institutions, hindering India's goal to be a global leader in higher education.

Reduced Diversity of Thought: When political agendas dominate, it can stifle open debate and discourage exploring different viewpoints.
Potential for Student Activism: Increased politicization can lead to student activism, which can be positive but also disrupt academic life if it becomes too politically charged.
Erosion of Public Trust in Academia: When universities are seen as political tools, public trust in academic research's value and objectivity can diminish, weakening the influence of academic expertise on public

policy.

Reduced Research Funding: Politicians with short-term agendas might invest less in long-term research projects, stifling innovation and hindering India's competitiveness in the global knowledge economy.

Reduced Employability: Employers value skills like critical thinking and problem-solving. A highly politicized education that prioritizes ideology over these skills can leave graduates less prepared for the workforce.

What can be done to Mitigate Political Interference?

Institutional Autonomy: Strengthening the independence of universities is crucial to resist undue influence. Encouraging them to diversify funding sources can reduce dependence on government funds. Upholding academic freedom as a core principle ensures free discourse and research. Establishing autonomous university boards can enhance research quality, particularly in politically sensitive disciplines.

Pursuing Autonomous Status: As part of India's effort to create world-class universities, institutions should strive for autonomous status. This enables them to design innovative curriculums, seek diverse funding sources, and compete for recognition as Institutions of Eminence under the UGC Act 2017, fostering a dynamic and competitive higher education landscape.

Implement Key Recommendations: Implement the National Knowledge Commission (NKC) 2005 and Yash Pal Committee 2009 recommendations to grant higher education institutions greater autonomy in academic, administrative, and financial matters. NKC suggests reforming universities by updating curricula every three years, using internal assessments, adopting a course credit system, and attracting talented faculty. Establish Central and State Boards of Undergraduate Education for curricula and examinations and create an Independent Regulatory Authority for Higher Education (IRAHE) independent of stakeholders, established by an Act of Parliament.

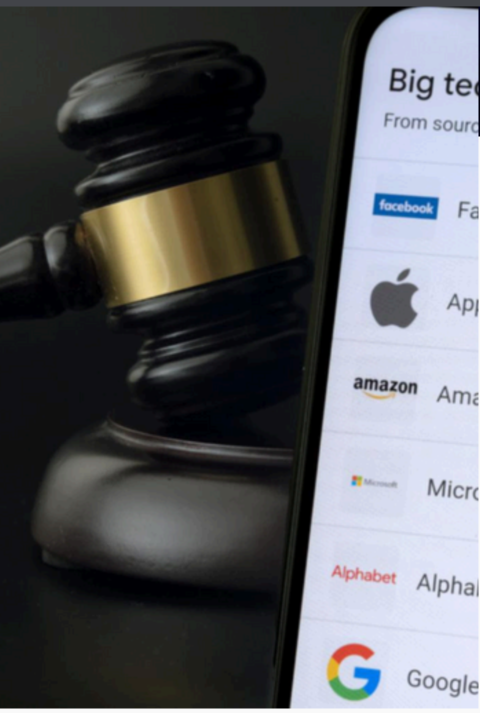
Depoliticize Governing Bodies: An independent selection process for vice-chancellors and other key positions based on academic merit and experience can reduce political influence. The National Education Policy (NEP) 2020 recommends motivating and building the capacity of faculty through independent, transparent recruitment, freedom to design curricula and pedagogy, incentivizing excellence, and promoting faculty into leadership roles. Faculty not meeting basic norms will be held accountable.

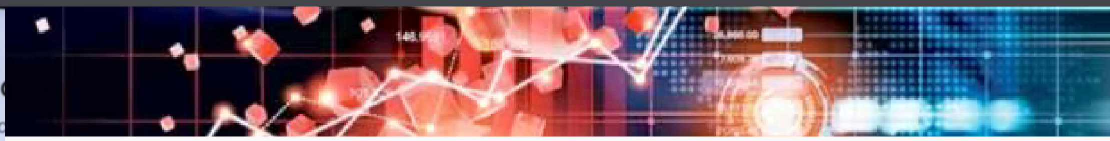
Protect Dissent and Critical Inquiry: Upholding the right of faculty to engage in research and express views without fear of retaliation or censorship is crucial for maintaining the integrity of higher education. Clear policies and safeguards should protect academic freedom.

Ensure Student Union Independence: University student unions should remain autonomous, elected by students without political party or authority interference.

Empowered Ombudsman: Establish an independent ombudsman mechanism to investigate and address complaints of political interference, academic freedom violations, or politically motivated harassment from any stakeholders.

COMPETITION IN DIGITAL MARKETS





Why in News?

At the 15th annual day celebrations of the Competition Commission of India (CCI), the Chairperson highlighted concerns about digital markets. He stressed that these markets tend to concentrate, leading to monopolistic behaviours

What were the Key Highlights of the Event?

At the 15th annual day celebrations of the Competition Commission of India (CCI), the Chairperson emphasized that digital platforms' control over large datasets can create barriers for new players, compromise platform neutrality, and lead to algorithmic collusion.

The Attorney-General for India also pointed out that the monopoly of e-commerce platforms over user data could require scrutiny and innovative legal approaches to balance free markets and social benefits.

Looking ahead, the digital economy offers vast opportunities for innovation, growth, and consumer benefits, but it also challenges traditional competition laws globally. In this context, the importance of tools like behavioral economics to understand human preferences was also highlighted.

What is a Digital Market?

Digital Markets Overview:

Digital markets, also known as online markets, are commercial spaces where businesses and consumers connect through digital technologies.

Examples:

E-commerce Marketplaces: Online platforms like Amazon and eBay where businesses sell products directly to consumers (B2C).

Digital Advertising: Online ads displayed on websites, social media platforms, or search engines, operated by companies like Google Ads and Facebook Ads.

Social Media Marketing: Businesses use platforms like Facebook, Instagram, or Twitter to connect with potential customers, build brand awareness, and promote products or services.

Search Engine Optimization (SEO): Optimizing a website's content and structure to rank higher in search engine results pages (SERPs), increasing organic traffic.

Characteristics Leading to Monopolistic Tendencies:

Digital markets often exhibit certain traits, such as low variable costs, high fixed costs, and strong network effects. These characteristics can result in a small number of firms holding large market shares, leading to monopolistic tendencies.

What are the Challenges Associated with the Competition in Digital Markets?

Market Dominance and Anti-Competitive Practices:

A few powerful players can control a large share of the market, stifling innovation and limiting consumer choice. This dominance can lead to anti-competitive practices such as:

Self-Preferencing: Platforms prioritize their own products or services over competitors in search results or promotions.

Example: Google allegedly favoring its own shopping results over other platforms.

Tying and Bundling: Forcing users to purchase unwanted products or services alongside desired ones.

Example: iPhones offer a smooth user experience when paired with other Apple products like iPods and Apple Music. This tight integration encourages users to stay within the Apple ecosystem, potentially limiting their options with other brands.

Exclusive Deals: Locking suppliers or distributors into exclusive agreements, hindering competition.

Example: Streaming platforms like Hotstar or Jio Cinema securing exclusive rights to shows, limiting viewer options.

Network Effects and Winner-Take-All Dynamics:

The value of a platform increases as more users join, creating a snowball effect that makes it difficult for new entrants to compete.

Example: Social media platforms like WhatsApp and Instagram become more valuable as more users join.

This can lead to:

High Switching Costs: Users become dependent on the platform due to accumulated data, network connections, or sunk costs, making it hard to switch to a competing platform.

Reduced Innovation: Dominant players may have less incentive to innovate as they hold a strong market position.

Data Advantage and Privacy Concerns:

Digital companies collect vast amounts of user data, giving them an advantage in personalization, targeted advertising, and product development. This raises concerns about:

Consumer Privacy: The methods through which user data is collected, stored, and used can be opaque, leading to privacy violations.

Unequal Playing Field: New entrants may struggle to compete with established players who have a rich data set to leverage.

Regulatory Challenges:
The fast-paced nature of digital markets can make existing regulations ineffective. Regulators struggle to define and address:

Antitrust Issues: Defining and proving anti-competitive behavior in complex digital ecosystems can be difficult.
Determining Dominance: Identifying and proving a firm's dominance in the digital market is also a substantial challenge.

What are Possible Solutions to Monitor the Digital Markets Competition?

Proactive Measures:
Designation of Systemically Important Digital Intermediaries (SIDIs):
Identification and Regulation: Identify dominant players with significant market power based on user base and revenue, and subject them to stricter regulations.
Prohibition of Anti-Competitive Practices: Explicitly ban practices like self-preferencing and exclusive dealing that stifle competition.
Example: A platform cannot prioritize its own products over competitors in search results.

Data Sharing and Interoperability:
Mandating Data Sharing: Require platforms to allow users to move data or services between platforms more easily.
Example: Allow users to transfer their online shopping cart from one platform to another.

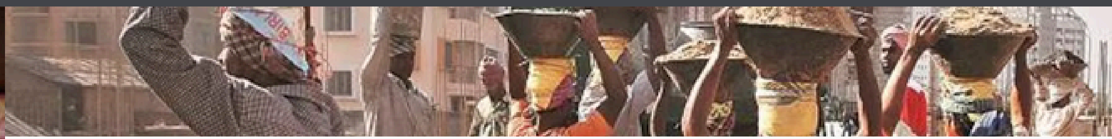
Strengthening the Competition Commission of India (CCI):
Enhanced Resources and Expertise: Provide the CCI with additional powers, resources, and personnel to effectively monitor digital markets and investigate potential anti-competitive practices.

Example: The 53rd Parliamentary Standing Committee Report recommended strengthening the CCI to address competition concerns in digital markets.

Promoting Innovation with Data Protection:
Regulatory Sandbox: Establish a regulatory framework for startups in digital markets to test innovative products and services in a controlled environment with reduced regulatory burdens.
Transparency and User Choice: Implement detailed regulations requiring platforms to be transparent about data collection practices and provide users with meaningful control over their data.
Example: The Personal Data Protection Bill, 2023 aims to empower users with greater control over their personal data.

Conclusion
Digital markets are where businesses and customers meet online. But they come with problems like big companies dominating, worries about keeping personal information safe, and not enough new ideas. We need to find solutions to these problems before they get worse. As the world becomes more digital, India needs to make sure startups have what they need to succeed.

REFORMING INDIA'S INFORMAL LABOUR MARKET



Why in News?

India's labor market has a large informal sector, with over 400 million workers not in formal jobs. This informal workforce makes up more than half of the country's GDP.

However, many of these workers earn low incomes and have limited skills, showing the need for more formal jobs and fair opportunities.

What is the Current State of the Labour Market?

Global State of Informal Economy:

- Over 60% of the global workforce and 80% of businesses operate in the informal economy.
- More than 2 billion people work in informal jobs.
- Informal employment makes up:
    - 90% of total jobs in low-income countries.
    - 67% of total jobs in middle-income countries.
    - 18% of total jobs in high-income countries.

From 2010 to 2016, informal work contributed about 40% of GDP in Sub-Saharan Africa, Europe, Central Asia, Latin America, and the Caribbean.

In India:

- The informal labor market covers almost 85% of India's workforce.
- Over 90% of informal workers are self-employed or casual laborers.
- The informal sector generates more than half of India's GDP.
- Over 94% of the 27.69 crore informal workers registered on the e-Shram portal earn Rs 10,000 or less per month, and over 74% of these workers are from Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC).
- About 25.56% of the informal workers belong to the General Category.
- Around 94% of registered informal workers earn Rs 10,000 or less per month, while 4.36% earn between Rs 10,001 and Rs 15,000 monthly.

What are the Challenges Posed by the Informal Labour Market?

Precarious Employment:

Agricultural labourers and street vendors often experience seasonal unemployment and low wages because there are no regulations or bargaining power. This leads to income inequality and increased poverty.

Sustainable Livelihoods:

Providing sustainable livelihoods and fair opportunities for informal workers is difficult.

Social Vulnerability:

- Large families put a strain on agricultural labourers.
- Low incomes keep home-based workers and street vendors in a cycle of low social status, limiting their access to social security, healthcare, and other basic rights.

Occupational Hazards:

- Waste pickers and recyclers face health risks due to poor working conditions and lack of safety measures.
- Child labor is also common in this sector.

Institutional Challenges:
Informal workers often lack legal protection and are vulnerable to harassment by authorities.

Way Forward
Universal Coverage:
Leverage the eShram Portal: Work with industry associations to enroll all 400 million informal workers into social security schemes.
Simplifying Registration Processes:
Integrate Informal Businesses: Simplify registration for informal businesses to bring them and their workers into the formal economy.
Self-Help Groups (SHG): Use SHGs to promote self-reliance and improve conditions for informal workers.

Implementation of Labour Codes:
Swift Implementation: Quickly implement the four consolidated labour codes (Wages, Industrial Relations, Social Security, Occupational Safety) to address current issues.

Needs-Based Support:
Tailored Schemes: Create social security programs for specific groups like street vendors, agricultural laborers, and construction workers.
Extended Benefits: Provide maternity benefits, accident and death compensation, education, and livelihood support during lean periods.

Skill Development and Formalization:
Skill Upgradation: Equip informal workers with skills to improve their employability and help them transition to the formal sector.
Formalization Incentives: Introduce policies and schemes to encourage the formalization of the labor market.
Reduced GST for Employment Services: Classify employment services as "merit services" with a lower GST rate (e.g., 5% instead of 18%) to boost job

creation.

Link Skilling to Employment: Ensure skilling initiatives are directly connected to job opportunities.

Grievance Redressal Mechanism:

Periodic Redressal: Establish an accessible and officially monitored mechanism to regularly hear and address grievances from informal workers.

INDIA'S SERVICE SECTOR

Why in News?

Business activity in India experienced strong growth in May 2024, primarily due to the dominant services sector. The HSBC flash India Composite Purchasing Managers' Index (PMI), compiled by S&P Global, showed record export growth and the highest rate of job additions in nearly 18 years.

What is the Service Sector?

About the Service Sector:

The service sector includes industries that offer intangible services such as finance, banking, insurance, real estate, telecommunications, healthcare, education, tourism, hospitality, IT, and BPO.

Contribution of India’s Service Sector:

- The service sector contributes over 50% to India's GDP.
- The Covid-19 pandemic severely impacted the services sector, with its share in India's Gross Value Added (GVA) dropping from 55% in 2019-20 to 53% in 2021-22.
- India is a major export hub for software services. The Indian IT outsourcing service market is expected to grow by 6–8% between 2021 and 2024.
- In September 2023, India maintained its 40th rank in the Global Innovation Index (GII) due to advancements in technologically dynamic services that can be traded internationally.
- The Indian services sector attracted the most FDI inflows, amounting to USD 108 billion between April 2000 and December 2023.

What are the Key Highlights of India's Flash Composite PMI?

Composite PMI Increase:

The Flash Composite Purchasing Managers' Index (PMI) for India increased to 61.7 in May 2024 from 61.5 in April 2024, indicating robust economic activity.

Steep Job Expansion:

May 2024 witnessed the most significant expansion in private sector jobs since September 2006, fueled by strong growth in new orders and capacity pressures.

Export Orders:

Both the manufacturing and services sectors experienced a record increase in new export orders, marking the fastest pace since the series began in September 2014.

Input Costs and Prices:

Input costs rose at a quicker rate, leading to higher prices for Indian goods and services.

This resulted in margin pressures, especially for service providers.

What Are the Challenges Related to India's Services Industry?

Inadequate Physical Infrastructure:

Insufficient transport networks lead to delays and higher logistics costs, which make up 14% of India's GDP, double the average in developed nations.

Digital Infrastructure:

Limited high-speed internet access in rural areas and concerns about cybersecurity and data protection affect customer trust and international compliance standards. For instance, a major data breach at the Indian Railways Catering and Tourism Corporation (IRCTC) in 2019 exposed millions of users' personal information.

Skill Development:

Educational curricula misaligned with industry needs and insufficient vocational training worsen workforce shortages. According to the World Bank, 22% of graduates are considered unemployable due to skill mismatches.

Employment Practices:

Rigid labour laws hinder hiring and firing flexibility. Many service jobs offer low wages and lack job security, sometimes resulting in mass layoffs.

Taxation Issues:

Multiple taxes and compliance requirements increase administrative burdens for businesses. While the Goods and Services Tax (GST) aimed to simplify the system, its implementation has been challenging for many service providers.

Domestic Competition:

Intense competition among numerous SMEs limits profitability, and the unorganized sector in the services industry results in inconsistent service quality and standards.

International Competition:

Established global companies in sectors like IT and finance increase competition for local firms. Protectionist measures abroad can restrict market access for Indian service exporters. For instance, the US imposes H-1B visa quotas, making it difficult for Indian IT companies to send skilled workers for projects.

Access to Finance:

Limited access to affordable finance hampers growth and expansion for service providers, impacting investment in research and development, and thus innovation and competitiveness. This creates disparity in competitiveness and market reach between traditional physical establishments and digital counterparts.

What are the Potential Opportunities for India in the Service Sector?

IT-BPO (Business Process Outsourcing)/ Fintech:

This sector is a major employer and contributor to India's GDP. It benefits from a large pool of skilled IT professionals and government support for the fintech industry, promising growth potential.

Healthcare & Tourism:

India's healthcare sector is rapidly expanding due to an ageing population, rising disposable incomes, and a growing medical tourism industry. It offers high-quality care at lower costs compared to developed countries.

Logistics & Transportation:

India's logistics sector has significant growth potential, supported by government infrastructure investments. These investments create opportunities for logistics and transportation companies to thrive.

Education:

India's large young population and increasing demand for quality education create opportunities for companies offering online education and vocational training services.

Professional Services:

India's abundance of skilled professionals in fields like accounting, law, and consulting presents opportunities for companies offering professional services to businesses.

Way Forward

Social Security Portability:

Develop a portable social security system tailored to the needs of gig workers and individuals transitioning between formal and informal sectors, ensuring continuity of benefits.

Entrepreneurship and Innovation:

Establish industry-specific startup incubators and accelerators to foster entrepreneurship and innovation. Expand angel investor networks to provide early-stage funding for promising startups, stimulating economic growth.

Targeted Programs for Marginalised Groups:

Implement skill development programs targeted at individuals from marginalised communities, like the SMILE initiative, to promote inclusivity and empower active participation in the workforce.

AI and Automation Reskilling:

Provide training in AI, robotics, and data science to prepare the workforce for the rise of automation. Empower workers to adapt and excel in the evolving job market through reskilling initiatives.

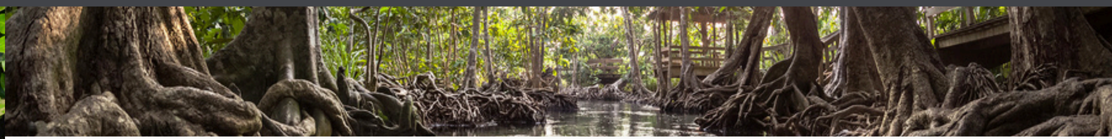
Remote Work Opportunities:

Encourage companies to adopt technology that facilitates remote work, improving job accessibility for individuals residing outside urban centers. Promote a balanced work-life equilibrium for employees.

Best Practices:

Implement strategies to incentivize informal workers to transition to the formal sector, drawing insights from Peru's National Strategy. Foster decentralized stakeholder involvement, including the state, businesses, academia, workers, civil society, and Indigenous peoples, to drive successful formalization efforts.

IUCN REPORT ON MANGROVE ECOSYSTEMS



Why in News?

The International Union for Conservation of Nature (IUCN) has released a new report warning that half of the world's mangrove ecosystems are in danger of collapsing. This is the first thorough global assessment of mangroves by IUCN.
Titled "Red List of Mangrove Ecosystems," the report revealed these findings on International Day for Biodiversity (May 22nd).

What are the Key Findings of the Study?

About:

This study divided the world's mangrove ecosystems into 36 different regions known as provinces and evaluated the threats and risk of collapse in each region.

Findings:

More than Half of the World's Mangroves at Risk:

- Over 50% of the world's mangrove ecosystems are at risk of collapse, classified as vulnerable, endangered, or critically endangered, with nearly 1 in 5 facing severe risk.
- One-third of the world's mangrove ecosystem provinces will be severely affected by sea-level rise, with 25% of the global mangrove area predicted to be submerged in the next 50 years.

Higher Risk to South Indian Mangroves:

- Mangrove ecosystems in South India, shared with Sri Lanka and Maldives, are classified as "critically endangered."
- In contrast, mangrove ecosystems in the Bay of Bengal region (shared with Bangladesh) and the western coast (shared with Pakistan) are labeled as "least concerned."

Climate Change as a Major Threat:

- Globally, climate change is identified as the primary threat to mangrove ecosystems, affecting 33% of mangroves.
- This is followed by deforestation, development, pollution, and dam construction.
- Increased frequency and intensity of cyclones, typhoons, hurricanes, and tropical storms are impacting mangroves on certain coastlines.

Global Impact:

- Coasts along the Northwest Atlantic, North Indian Ocean, Red Sea, South China Sea, and Gulf of Aden are predicted to be significantly impacted.
- Without increased conservation efforts, about 7,065 sq km (5%) more mangroves could be lost, and 23,672 sq km (16%) will be submerged by 2050.

What are India's Initiatives Related to Mangroves Conservation?

What are India’s Initiatives Related to Mangroves Conservation?

Coastal Regulation Zone (CRZ) Notification (2019):

Under the Environment (Protection) Act, 1986, this notification categorizes coastal areas, including wetlands, into four groups. It prohibits activities that could harm mangroves, such as dumping waste, industrial activities, land reclamation, and construction within these zones.

Existing Forest Laws:

The Indian Forest Act, 1927: States like Maharashtra have declared mangroves on government land as Reserved Forests, providing legal protection.

The Wildlife Protection Act, 1972: Some mangrove areas serve as vital habitats for wildlife and are safeguarded under this act.

Other Relevant Acts:

Additional laws like the Water (Prevention and Control of Pollution) Act, 1974, and the Maharashtra Tree (Felling) Act, 1972, regulate activities that could pollute or harm these ecosystems.

Central Sector Scheme on 'Conservation and Management of Mangroves and Coral Reefs':

This scheme offers financial aid to coastal states and union territories for implementing mangrove conservation action plans. These plans may include surveys, alternative livelihood programs, and awareness campaigns.

Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI):

Introduced in the 2023-24 Union Budget, MISHTI aims to increase mangrove cover along coastlines and degraded lands. It supports sustainable development and protects vulnerable coastal areas.

How Significant is the Mangrove Ecosystem?

Challenges Faced by the Mangrove Ecosystem:

Habitat Destruction and Fragmentation:

- Mangroves are cleared for agriculture, urbanization, aquaculture, and infrastructure, leading to habitat loss and fragmentation, disrupting ecosystem functioning and biodiversity.
- Climate Change and Sea Level Rise:
- Rising sea levels due to climate change threaten mangroves. Extreme weather events like cyclones and storms can cause severe damage to mangrove forests.

Pollution and Contamination:

- Agricultural runoff, industrial discharges, and improper waste disposal pollute mangrove habitats, harming flora, and fauna. Heavy metals, plastics, and other pollutants adversely affect these ecosystems.

Lack of Integrated Management:

- Mangroves are often managed in isolation without considering their interconnectedness with adjacent ecosystems like coral reefs and seagrass beds. Integrated management is crucial for effective conservation.

Overfishing and Unsustainable Harvesting:

- Overfishing and unsustainable harvesting of mangrove resources, such as fish, crabs, and timber, can reduce their ecological and economic value.

Invasive Species:

- Non-native species, like the red mangrove, can outcompete native species and alter the structure and function of mangrove ecosystems.
- Lack of Awareness and Protection:
- Mangroves are undervalued and lack legal protection, making them vulnerable to exploitation and destruction. Increased awareness and legal safeguards are necessary for their conservation.

What can be Done to Protect Mangrove Ecosystem?

- Cracking Down on Harmful Activities:

- Implement stricter laws and enhance enforcement to prevent pollution, deforestation, and unsustainable development along the coast. This will help protect mangrove habitats from degradation.
- Mangrove Adoption Program:
- Launch a public-driven program allowing individuals, corporations, and institutions to "adopt" sections of mangroves. Participants would be responsible for the maintenance, protection, and restoration of their adopted areas, fostering a sense of ownership and collective responsibility.
- Mangrove Research and Development:
- Invest in research to explore novel applications of mangroves, such as using them for phytoremediation to clean polluted water or developing new medicines from mangrove plant extracts. This could lead to innovative ways to leverage the unique properties of mangroves for sustainable development.
- Empowering Local Communities:
- Involve local communities, who often have a deep understanding of mangrove ecosystems, in conservation efforts. Create sustainable livelihood opportunities tied to protecting mangroves, fostering a shared responsibility for their well-being.

Bio-Restoration Techniques:

- Utilize bio-restoration techniques to revive degraded mangrove areas, helping to maintain original biodiversity. Ecological restoration can accelerate mangrove recovery compared to natural regeneration.
- Diverse Species in Restoration Efforts:
- Ensure restoration efforts include a variety of mangrove species rather than monocultures. This approach will create forests that are more resilient to the impacts of climate change.

INDUSTRIAL ACCIDENTS

Why in News?

Recently, an explosion at a chemical plant in Thane, Maharashtra, killed 11 people. Industrial accidents like this are a big problem for factories in India and around the world.

What are the Key Factors Contributing to Industrial Accidents in India?

Problems in the Chemical Industry:

1. Inadequate Regulation and Monitoring:

- There are too many overlapping regulations (15 Acts and 19 rules) without a unified approach for the chemical industry.
- This causes confusion and weakens safety oversight and enforcement.

2. Lack of a Comprehensive Chemical Risk Database**:

- There is no central database on industrial chemicals and their risks.
- This makes it difficult to assess hazards and develop safety protocols.

3. Insufficient Worker Training and Awareness:

- Untrained, temporary workers often operate boilers without proper safety and emergency training.
- This leads to confusion and increased risks during accidents, especially with hazardous chemicals.

4. Poor Investment in Worker Safety:

- Some industries cut costs by neglecting safety equipment and infrastructure like proper ventilation and fire safety.
- An IIT Kanpur study in 2023 emphasized the need for more investment in worker safety to reduce accidents.

5. Lack of Maintenance:

- The Visakhapatnam gas leak involving benzimidazole highlighted concerns about maintenance and operations.
- In the Neyveli incident, a boiler unexpectedly exploded during maintenance, even though it was not operational and only involved a furnace and steam production.

What are the Consequences of Such Industrial and Chemical Accidents?

- Industrial accidents cause a lot of deaths and injuries. For example, an explosion at a chemical factory in Thane killed 11 people.
- Chemical leaks, explosions, and bad waste disposal hurt the environment a lot. They make the air, water, and soil dirty. For instance, the Bhopal Gas Tragedy in 1984 was awful. A gas leak from a Union Carbide plant killed thousands and made many others sick.

- Fixing things after accidents costs a ton of money. Companies have to pay to repair buildings, help victims' families, and treat injured workers. According to a study by the US Environmental Protection Agency, accidents can also lower property values in nearby areas by 5-7%, which hurts the local economy.
- Industrial accidents can leave people with deep emotional scars. Survivors, witnesses, and victims' families can suffer from anxiety, depression, and PTSD.
- When accidents happen often, people stop trusting the government and companies to keep them safe. They get scared and might fight against new industrial projects.

What are the Legal Safeguards against Chemical/Industrial Disasters?

- The Sendai Framework for Disaster Risk Reduction (2015-2030) aims to lessen the impact of disasters worldwide. The UN Convention on the Transboundary Effects of Industrial Accidents (1992) helps countries work together to prevent and handle industrial accidents. It encourages sharing information, planning for emergencies, and supporting each other during crises.
- The Flexible Framework for Accident Prevention and Preparedness (CAPP) (2006) by UNEP helps countries, especially developing ones, create programs to prevent and prepare for chemical accidents. It gives guidance tailored to each country's needs.
- The OECD Programme on Chemical Accidents (1990) focuses on preventing accidents by sharing information and promoting best practices in chemical safety.
- In India, laws like the Bhopal Gas Leak (Processing of Claims) Act, 1985, the Environment Protection Act, 1986 (EPA), and the Public Liability Insurance Act, 1991 (PLIA) are crucial. The PLIA mandates insurance for industries dealing with hazardous substances, providing financial help to those affected by accidents involving these substances.

- The National Environment Appellate Authority Act, 1997, sets up the National Environment Appellate Authority (NEAA). It hears appeals regarding restrictions on certain industrial activities under the EPA, ensuring a fair process.
- The Hazardous Waste (Management Handling and Transboundary Movement) Rules, 1989, require industries to identify accident risks, take preventive measures, and report hazards to the authorities.
- The National Disaster Management Authority (NDMA) has issued guidelines on Chemical Disaster Management. These give directions to various authorities for making detailed disaster management plans.
- Other laws like the Factories Act, 1948, and the Insecticides Act, 1968, also contribute to ensuring industrial safety.

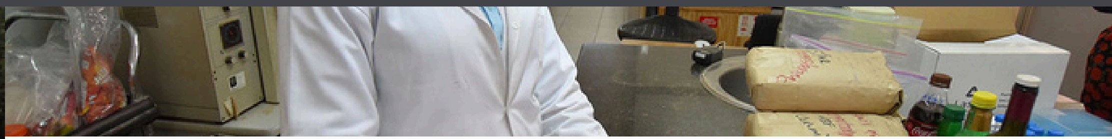
- Way Forward
- Creating a strong regulatory framework is crucial. The International Labour Organization (ILO) suggests having clear national rules and assigning different government agencies specific roles to enforce safety regulations.
- According to the World Bank in 2018, having strict regulations on chemical safety is vital for preventing chemical accidents.
- Improving monitoring and enforcement is essential. A study by IIM Ahmedabad in 2020 blames weak enforcement for India's industrial accidents. They suggest imposing stricter penalties and conducting more frequent inspections by qualified personnel.
- It's important to have a central database to document risks related to industrial chemicals, as highlighted by the Bhopal Gas Tragedy of 1984. This helps in understanding and managing these risks effectively.
- The OECD promotes the Global Harmonized System of Classification and Labelling of Chemicals (GHS), which provides a standard way to classify chemicals, helping in better risk assessments.
- Investing in worker training is crucial. A 2017 study by the National

- Safety Council of India (NSCI) found that many accidents happen because workers aren't aware of safety protocols. NSCI recommends comprehensive training programs for all staff levels.
- Encouraging industries to adopt environmentally friendly technologies (ESTs) is important. These technologies reduce the use of hazardous materials, improve waste management, and lower the risk of accidents, as suggested by the UNEP.
- Providing incentives and support for upgrading safety measures can motivate companies to improve safety. This could include offering financial aid such as tax breaks or subsidies for upgrading infrastructure and adopting new technologies.

Conclusion

- The frequent industrial accidents in India highlight the pressing need to fill regulatory and knowledge gaps in the country's industrial sector. To tackle this issue, both the government and industry stakeholders must collaborate closely, taking a comprehensive and forward-thinking approach. By doing so, India can progress towards safer and more sustainable industrial development.

SYMPATRIC SPECIATION



Why in News?

A new study from IIT Bombay talks about how new species can develop even when they live in the same area. This goes against the old idea that new species only form when groups of animals are separated by geography.

What is Sympatric Speciation?

- Speciation is when a group of animals or plants becomes different from the rest of their species. Sympatric speciation happens when new species develop in the same place where their ancestors lived.

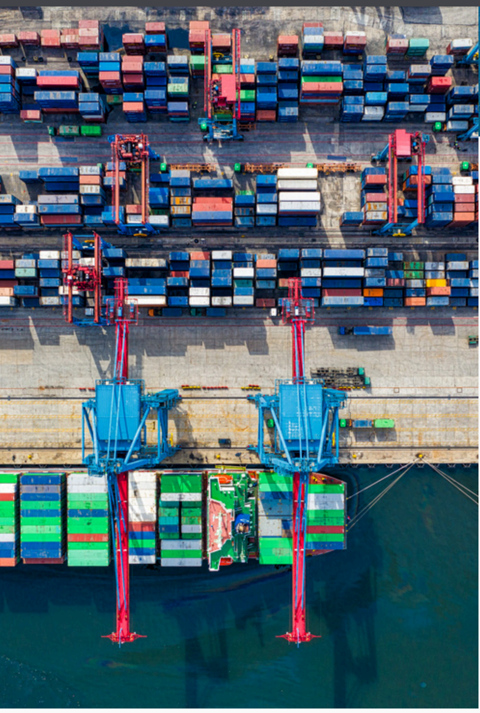
- Allopatric speciation, on the other hand, is when new species form because some animals or plants get separated from the rest of their species by something like a river, mountain, or canyon. They end up living in different places and gradually become different from each other.
- For example, when the Grand Canyon formed, it split a group of squirrels into two separate populations. Over time, these squirrels changed so much that now there are different types of squirrels living on the north and south sides of the canyon.
- But birds and other animals that could fly or move easily across the canyon didn't get split into separate groups. They could still mate with each other and didn't become different species.

What are the Key Highlights of the Study?

The study looked at three important things: disruptive selection, sexual selection, and genetic architecture, by simulating a population of birds.

- Disruptive Selection: This is when animals with different traits do better than those with average traits because of how resources are spread out. For example, birds with small beaks might be better at getting nuts, while those with longer beaks might be better at getting nectar from flowers. The study found that this kind of selection can split a population even if they all live in the same place.
- Sexual Selection: This is when animals pick mates based on certain traits. The study found that if birds pick mates based on traits that help them get resources, like beak size for getting food, it can lead to new species forming. But if they pick mates based on things like feather color, it doesn't lead to new species. Also, picking mates based on specific traits might mean their babies aren't as healthy.
- Genetic Architecture: This means how genes influence traits. Even if the selection for traits isn't very strong, if the genes allow for those traits to change, new species can still happen. For example, even if the birds don't have strong reasons to change their beak size, if their genes make it easy to change, new species can still develop.

INDIA IN TRADE DEFICIT WITH TOP TRADING PARTNERS



Why in News?

Recent official data reveals that India had a trade deficit with 9 out of its top 10 trading partners during the 2023-24 period. This means that India imported more goods and services from these countries than it exported to them.

What is the Current Status of India's Trade Deficit?

- In the last fiscal year, India's overall trade deficit decreased to $238.3 billion from $264.9 billion in the previous year. However, the trade deficit with China, Russia, South Korea, and Hong Kong increased compared to the year before. On the other hand, the trade gap with the UAE, Saudi Arabia, Russia, Indonesia, and Iraq decreased.

- China became India's biggest trading partner in 2023-24, with a total trade of $118.4 billion, surpassing the US. However, the US held the top position in trade with India in the previous two fiscal years. India had a trade surplus of $36.74 billion with the US in 2023-24, as well as with the UK, Belgium, Italy, France, and Bangladesh.
- India has free trade agreements with four of its top trading partners: Singapore, the UAE, South Korea, and Indonesia (as part of the Asian bloc).

What are the Reasons Behind India's Trade Deficit?

- India faces challenges due to its heavy reliance on energy imports, particularly crude oil, which accounts for more than 85% of its needs. Fluctuations in global oil prices can greatly affect India's trade deficit.
- Certain Indian industries, such as pharmaceuticals and semiconductors, heavily depend on imported raw materials and intermediates. This reliance on imports increases the value of imports and contributes to the trade deficit. For example, the pharmaceutical sector imports a significant amount of Active Pharmaceutical Ingredients (APIs) from China.
- Additionally, India struggles to export enough manufactured goods to balance its imports. Factors such as lower manufacturing capabilities and competitiveness in the global market compared to countries like China and the US contribute to this imbalance.

What are the Key Impacts of the Trade Deficit on the Indian Economy?

Benefits:

1. A trade deficit isn't necessarily negative if it involves importing raw materials or intermediary products, as it can boost manufacturing and exports.
2. In the short term, a trade deficit ensures a wider variety of goods and services are available to citizens, improving living standards by offering

more choices.
3. A trade deficit can lead to currency depreciation, making Indian exports more competitive globally due to lower prices.
4. In some cases, a trade deficit can drive domestic businesses to innovate and become more efficient to compete with imported goods. This can create jobs in export-oriented sectors like packaging, shipping, and logistics.

Challenges:
1. Over-reliance on imports can hinder domestic innovation and production in certain sectors, reducing the availability of domestically produced goods.
2. A large trade deficit, especially in sectors with significant import penetration, can lead to job losses in related industries.
3. For instance, cheap textile imports from Bangladesh have caused some Indian industries to close down, resulting in job losses.
4. A persistent trade deficit can weaken the value of the rupee, making imports even pricier.
5. Reduced exports can lower government revenue from export duties, impacting funding for social programs and infrastructure development.
6. To finance a trade deficit, India may need to borrow from foreign sources, increasing external debt and interest payments.
7. This could deplete forex reserves further and signal economic instability to investors, leading to reduced foreign investment.

What Measures can be taken to Control the Trade Deficit?

Trade Agreements:
Negotiating and implementing Free Trade Agreements (FTAs) with key partners can lower tariffs and other barriers for Indian exports, boosting their competitiveness abroad. For instance, the India-UAE CEPA aims to reduce tariffs on over 80% of bilateral trade, potentially benefiting exports of Indian textiles, pharmaceuticals, and agricultural productS

Improving Export Infrastructure:

Investing in infrastructure development, like upgrading ports, roads, and logistics networks, can make the export process smoother and lower transportation costs.

Import Substitution:

Encouraging the use of domestic substitutes for imported products through public procurement policies and campaigns promoting locally made goods can reduce reliance on imports. For example, promoting the use of domestically produced steel in government infrastructure projects can boost the domestic steel industry.

Rationalizing Imports:

Analyzing import data can help identify non-essential or luxury goods that could be substituted with domestically produced alternatives. For instance, the government could discourage the import of certain electronic items through higher tariffs, prompting consumers to choose domestically produced options.

Skilling the Workforce:

Investing in skill development programs can create a workforce with the expertise needed for modern industries, enhancing domestic production capabilities and reducing reliance on imports.

Managing Currency and Debt Levels:

The Reserve Bank of India (RBI) should manage the rupee's exchange rate effectively, aiming for a balance that promotes exports without causing excessive depreciation. Additionally, the government should focus on fiscal consolidation to reduce its debt burden, creating a more stable economic environment for domestic industries to thrive.

Conclusion

Absolutely, addressing the trade deficit and promoting sustainable economic growth requires a tailored approach. There's no universal solution because the effectiveness of measures depends on factors like trade partners, types of imports and exports, and global economic conditions. The Indian government must evaluate the situation carefully and implement a mix of strategies to tackle the trade deficit effectively and foster long-term economic development.